

Principles for Financial Market Infrastructures (PFMI) Disclosure Framework



December 2025



Contents

Disclosure information	3
1. Executive summary	5
2. Summary of major changes since December 2023	6
3. General background on the FMIs	8
3.1 General description of the FMIs and the markets they serve	8
3.2 General organisation of the FMIs	9
3.3 Legal and regulatory framework	10
3.4 System design and operations	12
4. Principle by principle disclosure	13
4.1 Responses for ASX's CCPs	13
Principle 1: Legal basis	13
Principle 2: Governance	17
Principle 3: Framework for the comprehensive management of risks	24
Principle 4: Credit risk	27
Principle 5: Collateral	31
Principle 6: Margin	33
Principle 7: Liquidity risk	37
Principle 8: Settlement finality	42
Principle 9: Money settlements	44
Principle 10: Physical deliveries	46
Principle 11: Central securities depositories	48
Principle 12: Exchange-of-value settlement systems	49
Principle 13: Participant-default rules and procedures	50
Principle 14: Segregation and portability	53
Principle 15: General business risk	56
Principle 16: Custody and investment risks	59
Principle 17: Operational risk	61
Principle 18: Access and participation requirements	65
Principle 19: Tiered participation arrangements	67
Principle 20: FMI links	69
Principle 21: Efficiency and effectiveness	71
Principle 22: Communication procedures and standards	73
Principle 23: Disclosure of rules, key procedures and market data	74
Principle 24: Disclosure of market data by trade repositories	76
4.2 Responses for ASX's SSFs	77
Principle 1: Legal basis	77
Principle 2: Governance	80
Principle 3: Framework for the comprehensive management of risks	87
Principle 4: Credit risk	90
Principle 5: Collateral	91
Principle 6: Margin	92
Principle 7: Liquidity risk	93
Principle 8: Settlement finality	96
Principle 9: Money settlements	98
Principle 10: Physical deliveries	100
Principle 11: Central securities depositories	101
Principle 12: Exchange-of-value settlement systems	103
Principle 13: Participant-default rules and procedures	104
Principle 14: Segregation and portability	106
Principle 15: General business risk	107
Principle 16: Custody and investment risks	109
Principle 17: Operational risk	110
Principle 18: Access and participation requirements	114
Principle 19: Tiered participation arrangements	116
Principle 20: FMI links	118
Principle 21: Efficiency and effectiveness	120
Principle 22: Communication procedures and standards	122
Principle 23: Disclosure of rules, key procedures and market data	123
Principle 24: Disclosure of market data by trade repositories	125
5. List of publicly available resources	126
Appendix I	127

Disclosure information

ASX Group – Financial Market Infrastructures (FMIs)

ASX Central Counterparty

- ASX Clear Pty Limited (ASX Clear)
- ASX Clear (Futures) Pty Limited (ASX Clear (Futures))

ASX Securities Settlement Facility

- ASX Settlement Pty Limited (ASX Settlement)

ASX Fixed Income Depository

- Austraclear Limited (Austraclear)

Australian Regulatory Authorities

Australian Securities and Investments Commission (ASIC)

- regulator of securities and derivatives markets
- focus on market integrity

Reserve Bank of Australia (RBA)

- Australia's central bank
- focus on financial and systemic stability
- determine the Financial Stability Standards (FSS)

Australian Prudential Regulation Authority (APRA)

- prudential regulator of the Australian financial services industry
- focus on safety and soundness of financial institutions

Australian Competition and Consumer Commission (ACCC)

- competition regulator
- arbitrates disputes about access to cash equity clearing and settlement services

Key facts about ASX's FMIs

Domestic standards

RBA – Financial Stability Standards

- ASX Clear
- ASX Clear (Futures)
- ASX Settlement
- Austraclear

International Standards

CPMI-IOSCO – PFMI

- ASX Clear
- ASX Clear (Futures)
- ASX Settlement
- Austraclear

European Union: ESMA – Third Country CCP Recognition

Recognition April 2015:

- ASX Clear
- ASX Clear (Futures)

Switzerland: FINMA Foreign CCP Recognition

Recognition December 2017:

- ASX Clear (Futures)

New Zealand: RBNZ/NZFMA Designated FMI

Designation March 2024:

- ASX Clear (Futures)

United States: CFTC DCO Exemption

Exemption from Derivatives Clearing Organisation (DCO) registration August 2015:

- ASX Clear (Futures)

Qualifying CCP (QCCP)**APRA**

Qualifying CCP (QCCP) Status confirmed:

- ASX Clear
- ASX Clear (Futures)

The date of this disclosure is December 2025.

The information in this document has been compiled by ASX management and is correct as at the date of publication.

For further information, please contact ASX: www.asx.com.au/about/contact-asx

This document contains active hyperlinks throughout.

1. Executive summary

The ASX Group (ASX), which includes ASX Limited and its related entities, provides critical market infrastructure to Australia and New Zealand's financial markets. As an integrated exchange, ASX provides a full suite of services, including listings, trading, clearing, settlement, technical and information services, and other post-trade services. It operates markets for a wide range of asset classes including equities, fixed income, commodities and energy.

ASX also provides benchmarks, data and technology services to intermediaries, banks, information vendors and software developers to help them make informed decisions, offer services to their clients and connect with one another.

ASX's business is conducted through a number of regulated legal entities. ASX holds market operator licences and clearing and settlement licences to undertake its activities in Australia. ASX is subject to oversight by ASIC and the RBA.

Confidence in the operations of the companies within ASX is reinforced by the whole-of-market regulation undertaken by ASIC across all trading venues and clearing and settlement facilities, as well as the financial system stability oversight by the RBA of ASX's Clearing and Settlement (CS) facilities. ASIC also supervises ASX Limited's own compliance with the ASX Listing Rules as a listed company.

The ASX Clearing and Settlement subsidiary boards provide oversight of risk management processes, internal controls and compliance systems in respect of the management of clearing and settlement risks (including clearing counterparty credit risk, treasury investment risk and liquidity risk of ASX Clear and ASX Clear (Futures), and the settlement risks within ASX Settlement and Austraclear).

ASX's risk division is responsible for ensuring ASX identifies, analyses and effectively manages the entire range of risks inherent in all the group's activities while having direct responsibility to specifically manage clearing related risks. ASX uses the Three Lines of Defence risk management model across the enterprise.

Clearing risk management activities for ASX's central counterparty (CCP) services are designed to ensure the integrity of the marketplace is maintained through the continued operation of the CCPs irrespective of events such as the insolvency of a clearing participant while minimising impact on other clearing participants and their clients. These activities are primarily focused on credit risk and market risk, and include minimum participant capital requirements, participant admission criteria, margin and position monitoring, and stress testing of the capital and liquidity of the CCPs.

ASX's securities settlement facilities (SSF) assist ASX participants to more effectively mitigate their settlement and operational risk. ASX's two settlement facilities provide a delivery versus payment (DvP) settlement service, secure asset holding services and a wide network that enables straight through processing. ASX SSFs play a central role in their respective markets, helping to increase reliability and reduce systemic risk.

2. Summary of major changes since December 2023

Regulatory change

In September 2024, the *Treasury Laws Amendment (Financial Market Infrastructure and Other Measures) Act 2024* was made, which amended the *Corporations Act 2001* (Cth) to provide the RBA with crisis resolution powers with respect to domestically incorporated clearing and settlement (CS) facilities. These powers enable the RBA to manage or respond to a threat posed to the continuity of critical CS facility services or the stability of the financial system in Australia arising in relation to a domestic CS facility licensee. In August 2025, the RBA published draft guidance to provide transparency about when and how the RBA would generally expect to use these resolution powers.

The [ASIC CS Services Rules 2025](#) were made in February 2025, following amendments to the Corporations Act which allow ASIC to determine classes of CS services for which CS services rules can be made. Cash equities has been determined as a class of CS services for the purpose of the application of the ASIC CS Services Rules and the ACCC arbitration regime. The rules impose requirements dealing with the activities, conduct and governance arrangements of providers of cash equity CS services. The rules are intended to establish formalised and clear obligations to promote competitive outcomes in the provision of cash equity CS services.

Strategic change

ClearStar Program

In 2023 ASX established the ClearStar Program. The ClearStar Program is a portfolio of projects established to modernise the technology and processes underpinning ASX's Over the Counter (OTC) Derivatives and Futures Clearing services.

The objectives of the ClearStar Program are to ensure stable CCP operation with simplified modern technology, to establish a platform for sustainable shareholder value and to work effectively with participants and stakeholders.

In May 2025, the program delivered an upgrade to the OTC Clearing system (Calypso). Two other projects are in progress:

1. Exchange Traded Derivatives TradeAccept Replacement: the off-market trade capture platform, TradeAccept, will be replaced by a modernised, participant co-designed solution.
2. Exchange Traded Derivatives Futures Clearing Replacement: replacement of the futures clearing platform.

Additional projects will include Pricing, Collateral, Margining and Exchange Traded Options. See Principle 21 for CCPs for further information.

CHESS Project

ASX is in the process of replacing its cash equities clearing and settlement platform, the Clearing House Electronic Subregister System (CHESS).

In November 2023, ASX announced it would proceed with a product-based solution design to replace CHESS. Tata Consultancy Services (TCS) was chosen to deliver the solution using its TCS BaNCS Market Infrastructure product, which offers a modular technology platform for clearing and settlement services. Given the scale and complexity of this project, Accenture was chosen as delivery partner to provide additional capability, capacity and industry expertise.

ASX is planning to implement the platform in two main releases. Release 1 will be clearing services, with settlement and subregister services to follow in Release 2. ASX consulted extensively with industry on the scope and timing of both releases over 2024. ASX is targeting Q2 (calendar year) 2025 for the go-live of Release 1. ASX anticipates commencement of industry testing for Release 2 from March 2026 onwards, and go-live of Release 2 in 2029.

Accelerate Program

In 2025 ASX established a transformation program that includes a range of strategic priorities across risk transformation, technology resilience, cyber risk, business resilience, data management and culture and capabilities. The program has been designed as an integrated approach to investment in capacity and capability, and enhancement of governance and oversight.

Other changes reflected throughout this document

In 2024 ASX Clear (Futures) listed new gas and environmental futures. See Principle 10 for CCPs for further information.

In 2025, as part of ASX's risk transformation plan, the Board Audit and Risk Committee was separated into two distinct committees. The Board Risk Committee oversees ASX's enterprise-wide risk management framework, risk strategy and appetite,

compliance arrangements and operational resilience. It also oversees the risk transformation and business resilience strategic priorities under the Accelerate program. The Audit and Supervisory Committee is responsible for financial reporting integrity, audit oversight and oversight of market supervision functions. See Principle 2 for CCPs and SSFs for further information.

In 2025 ASX introduced a Cash Equities Clearing, Settlement and Issuer Services Pricing Policy. The policy sets out the methodology for determining and reviewing prices for services that are classified as 'Covered Services' for the purposes of the ASIC CS Services Rules. These include:

- a. Cash equity clearing services provided by ASX Clear;
- b. Cash equity settlement services provided by ASX Settlement; and
- c. Issuer services provided by ASX Settlement.

See Principle 23 for CCPs and SSFs for further information.

In 2025 ASX introduced a Tiered Participation Policy for CCPs and SSFs, which establishes a framework for identifying, monitoring and managing risks arising from these arrangements. See Principle 19 for CCPs and SSFs for further information.

In 2025 ASX introduced an Orderly Wind-Down Plan for CCPs and SSFs, which takes into consideration the operational and technological requirements for a wind-down of the licensed business activities. The plan assesses the time, effort and cost to separate and transfer existing technology infrastructure for the relevant business activity, customer open position and transaction migration, as well as the one-off restructuring costs that the business would incur in an orderly wind-down. See Principle 15 for CCPs and SSFs for further information.

In 2025 ASX introduced a Supplier Lifecycle Policy and Standard which sets the framework and processes for how supplier risk is assessed (based on criticality) and managed. See Principle 17 for CCPs and SSFs for further information.

3. General background on the FMIs

3.1 General description of the FMIs and the markets they serve

Clearing

ASX provides CCP clearing services to the cash and derivatives markets. It does this through the operation of two licensed subsidiaries, ASX Clear and ASX Clear (Futures). As CCPs, the clearing subsidiaries become the central counterparty to the trade and assume the credit risk of each ASX clearing participant. This occurs through a contractual process known as novation, in accordance with the Operating Rules of each CCP. Refer to the ASX Group Monthly Activity Report, published on ASX's [media centre](#), for periodic summaries of ASX's CCPs' performance.

ASX Clear – Legal Entity Identifier (LEI): 549300JQL1BXTGCCGP11

ASX Clear operates a clearing facility and provides CCP services for financial products traded on the ASX market, including equities, listed/quoted investment products, warrants, interest rate securities and equity related derivatives (comprising OTC and exchange traded options) and for equities, listed/quoted investment products and warrants traded via an Approved Market Operator (AMO).

ASX Clear is authorised to clear transactions for certain customers located in a number of offshore jurisdictions, including the European Union and United States.

ASX Clear uses the Derivatives Clearing System to register and clear equity related derivative products and the Clearing House Electronic Subregister System (CHES) to register and clear cash equities, investment products, interest rate securities and warrants.

Refer to the ASX Clear [section](#) on ASX's website for further information.

ASX Clear (Futures) – Legal Entity Identifier (LEI): 549300ZD7BBOVZFHVK49

ASX Clear (Futures) operates a clearing facility and provides CCP services for derivative products traded on the ASX 24 market and for OTC interest rate derivative products affirmed on an approved affirmation platform.

ASX Clear (Futures) is authorised to clear transactions for certain customers located in a number of offshore jurisdictions, including the European Union, Switzerland, New Zealand and the United States.

ASX Clear (Futures) uses Nasdaq's Genium INET to register and clear futures and options and Calypso for OTC interest rate derivative products.

Refer to the ASX Clear (Futures) [section](#) on ASX's website for further information.

Settlement

ASX assists participants to effectively minimise their settlement and operational risk via ASX Settlement for cash equities and Austraclear for debt securities and cash transactions. These two settlement facilities provide a DvP settlement service, secure asset holding services and a wide network that enables straight through processing. Refer to the ASX Group Monthly Activity Report, published on ASX's [media centre](#), for periodic summaries of ASX's SSFs' performance.

ASX Settlement

ASX Settlement operates the SSF for cash equities, interest rate securities and warrants traded on the ASX market, and for cash equities traded via an AMO.

ASX's settlement services provided by ASX Settlement help reduce counterparty and systemic risk, and provide transaction efficiency and certainty for end investors. Settlement occurs on a DvP basis and involves the exchange of cash for delivery of securities.

Cash market settlement is conducted through CHES. The model for cash market settlement used by ASX (DvP model 3) maximises efficiency through the netting of settlement obligations in each individual security and the netting of all payment obligations while minimising the risk of settlement failure. The settlement cycle for the cash market is the trade date plus two business days (T+2).

Refer to the ASX Settlement [section](#) on ASX's website for further information.

Austraclear

Austraclear provides a wide range of depository, registration, cash transfer and settlement services for debt instrument securities in financial markets in Australia and the Asia-Pacific region. The settlement model used by ASX (DvP model 1) for debt securities settles transactions on a trade by trade basis which provides for certainty of settlement.

Austraclear acts as a central securities depository (CSD) for fixed income securities such as asset backed securities, Australian Government bonds and semi-government bonds. Settlement on these securities occurs through Real Time Gross Settlement (RTGS).

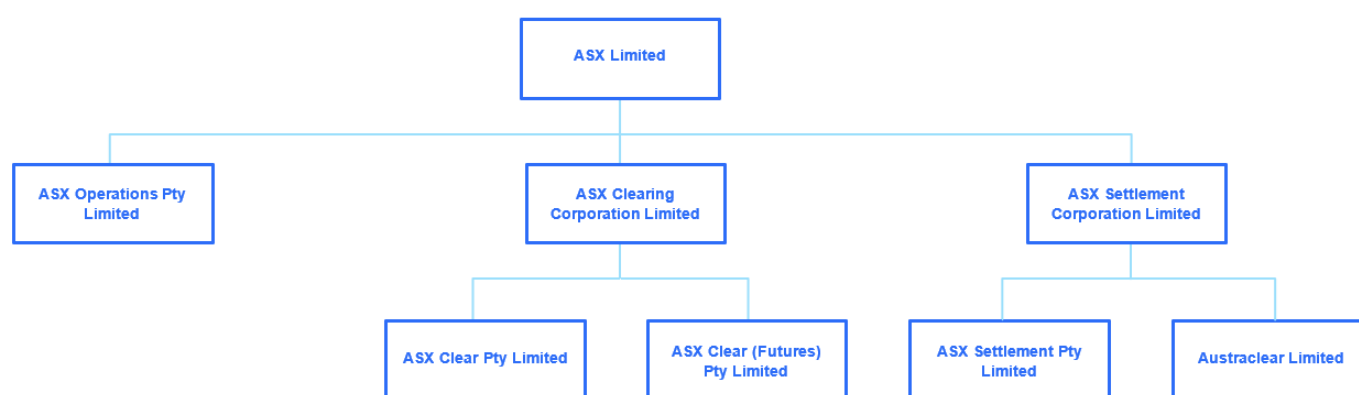
Austraclear provides registry services including security registration, the holding of relevant documentation and the subsequent cash transfers associated with the terms of the individual securities.

Austraclear is the technical platform that supports the settlement facility and CSD operational environment.

Refer to the Austraclear [section](#) on ASX's website for further information.

3.2 General organisation of the FMIs

Relevant parts of ASX Group's structure are depicted below:



The ASX Board Charter (published on [ASX's website](#)) sets out its composition, operating procedures and the allocation of responsibilities between the ASX Limited Board, the Clearing and Settlement Boards (CS Boards), Board Committees and management. In performing its responsibilities, the ASX Board has regard to ASX's licence obligations and public policy objectives directed at financial market and payment systems integrity. It also has regard to the interests of ASX's shareholders, customers, employees and regulators.

The CS Boards Charter (also published on [ASX's website](#)) sets out the composition, operating procedures and responsibilities of the CS Boards. Key responsibilities of the CS Boards include:

- providing leadership, guidance and oversight of the clearing and settlement operations of the CS entities;
- reviewing and approving the strategy developed by management to comply with the CS facility licensees' statutory and regulatory obligations, and to monitor the execution of the strategy approved by the CS Boards;
- setting the financial and counterparty risk tolerances and key risk indicators related to the operation of the CS facility licensees;
- together with the ASX Board, approving the risk tolerances and key risk indicators for the risk categories set out in the ASX Group risk appetite statement as they apply to the CS facility licensees;
- reviewing and approving the Enterprise Risk Management Framework (ERMF) together with any specific risk frameworks related to the operation of the CS facility licensees; and
- overseeing the adequacy of internal controls, systems and processes for the management of clearing and settlement risks of the CS facility licensees.

The CS licensees have intragroup support arrangements in place to provide ongoing resourcing, including with respect to compliance and enforcement, conflicts handling arrangements and resourcing.

The CS Boards have delegated the management of the CS Subsidiaries to the Managing Director and Chief Executive Officer (CEO) of ASX, except for those matters reserved by the CS Boards or delegated by the CS Boards to Board Committees. The Group Executive, Securities and Payments, and the Group Executive, Listings and Markets, are identified as the CS Lead Executives responsible for the operation of the CS facilities. The CEO is responsible for allocating sufficient resources to operate the CS facility licensees.

Further details about ASX's governance arrangements are available on [ASX's website](#), including ASX's constitution, ASX's Corporate Governance Statement, Board and Committee Charters, certain ASX Policies and a CHES Governance Statement.

3.3 Legal and regulatory framework

Overview and key regulators

ASX operates in a highly regulated environment overseen by two independent government agencies, the RBA and ASIC. These government regulators have extensive powers to enforce the laws and regulations that govern financial markets in Australia. The RBA and ASIC are members of the Committee on Payments and Market Infrastructures (CPMI) and the International Organisation of Securities Commissions (IOSCO) respectively, and are responsible for implementing the CPMI-IOSCO Principles for Financial Market Infrastructures in Australia.

ASIC has primary responsibility for licensing CS facilities operating in Australia and for granting exemptions from the requirement to hold a CS facility licence. ASIC has the power to disallow amendments to the Operating Rules of the CS facilities, which must be submitted by the CS facilities for review as soon as practicable after being made. ASIC assesses each CS facility licensee on its compliance with its licence obligations under the Corporations Act. The RBA determines the [Financial Stability Standards](#) that apply to the CCPs and SSFs, and assesses CS facility licensees on their compliance with them.

The FSS are determined by the RBA under the Corporations Act. A CS facility licensee that operates a CCP or SSF must comply with the applicable FSS. As of the date of this document, the FSS are aligned with the CPMI-IOSCO Principles for FMIs.

The RBA has responsibility for assessing whether licensed clearing and settlement facilities, including those operated by ASX, have complied with the RBA's FSS and done all other things necessary to reduce systemic risk.

ASIC is responsible for the supervision of real-time trading on Australia's domestic markets, including those operated by the ASX. ASIC is also responsible for enforcing the laws against misconduct on Australia's financial markets, as well as supervising Australian Financial Services Licence holders.

[The Council of Financial Regulators](#) is a non-statutory coordinating body for Australia's main financial regulatory agencies. Its members are the RBA (Chair), APRA, ASIC and Treasury.

The ACCC has the power to conduct binding arbitration to resolve disputes regarding access to cash equity clearing and settlement services.

Regulatory Assessments

ASX is subject to assessments of certain ASX Group licensees by both ASIC and the RBA.

ASIC

The scope of ASIC assessments can include any or all of the obligations of a market operator or CS facility licensee under s792A(c) and 821A(c) of the Corporations Act to have adequate arrangements for operating a market or facility. The assessments may also include ensuring that there are adequate arrangements for handling conflicts of interest and monitoring and enforcing operating rules, as well as having sufficient financial, technological and human resources to properly operate the facilities. At the conclusion of each assessment, ASIC releases a Market Assessment Report.

RBA

The RBA conducts compliance assessments against the FSS on an annual basis for ASX's CCPs and SSFs. The RBA publishes its findings after having reported to the Minister with portfolio responsibility for Corporations Law.

PFMI – Joint assessment

ASIC and the RBA share joint responsibility for assessing how well ASX's CS facilities observe the requirements of the PFMI, though ASIC holds sole responsibility for certain PFMI that have not been incorporated into the FSS.

The Corporations Act

The Corporations Act is the principal Australian legislation for the regulation of post trade infrastructure (CS facilities). In Part 7.3 the Corporations Act provides a licensing framework for domestic as well as overseas CS facilities that seek to operate in Australia.

Within ASX:

- ASX Clear and ASX Clear (Futures) are separately licensed to operate CCPs;
- ASX Settlement and Austraclear are separately licensed to operate SSFs.

The terms of these CS facility licences are publicly available. Under the Corporations Act, a CS facility licensee must (among other things):

- comply with the FSS; and
- to the extent that it is reasonably practicable to do so:
 - do all other things necessary to reduce systemic risk; and
 - do all things necessary to ensure that the facility's services are provided in a fair and effective way;
- comply with the conditions on the licence;

- have adequate arrangements (whether they involve a self regulatory structure or the appointment of an independent person or related entity) for supervising the facility, including arrangements for:
 - handling conflicts between the commercial interests of the licensee and the need for the licensee to ensure that the facility's services are provided in a fair and effective way; and
 - enforcing compliance with the facility's operating rules; and
- have sufficient resources (including financial, technological and human resources) to operate the facility properly and for the required supervisory arrangements to be provided.

Payment Systems and Netting Act

The *Payment Systems and Netting Act 1998* (Cth) (PSNA) provides certain protections under Australian law, from reversal or invalidation under the laws of any jurisdiction, for the transfer of property, rights and obligations, the termination, netting and settlement of obligations and enforcement of security effected in accordance with the Operating Rules of ASX's CS facilities, where a participant in the CS facility goes into external administration, as follows:

- Part 2 protects RTGS effected through an approved RTGS system (each of Austraclear and CHES (operated by ASX Settlement) has this approval, although CHES does not routinely offer RTGS functionality);
- Part 3 protects net settlements effected through an approved netting arrangement (each of Austraclear and ASX Settlement has this approval, although Austraclear does not routinely offer net settlement functionality); and
- Part 5 protects the transfer of property, rights and obligations, the termination, valuation and netting of obligations, and enforcement of security, by a CCP that operates an approved "netting market" (each of ASX Clear and ASX Clear (Futures) has this approval). This includes protecting a CCP's novation rules which effect the transfer and termination of rights and obligations. Part 5 also protects the porting of client positions and collateral by the CCP in the event that a clearing participant defaults.

Status of ASX CCPs as Qualifying Central Counterparties (QCCPs)

ASIC and the RBA have [confirmed publicly](#) that they apply domestic regulations that are consistent with the CPMI-IOSCO Principles for Financial Market Infrastructures to domestically licensed clearing and settlement facilities, including ASX Clear and ASX Clear (Futures). On the basis of that advice, in 2013 APRA [confirmed publicly](#) that it considered each of ASX Clear and ASX Clear (Futures) to meet the criteria for a QCCP as defined under *Prudential Standard APS 112 Capital Adequacy: Standardised Approach to Credit Risk* (APS 112). The QCCP eligibility criteria prescribed by APS 112 in 2013 are consistent with those applicable under the Basel III regulatory framework for banks and are now reflected in *Prudential Standard APS 180 Capital Adequacy: Counterparty Credit Risk* (APS 180). In addition and as required by APS 180, ASX's CCPs make available the necessary data to allow Authorised Deposit-taking Institutions (ADIs) that are clearing participants to calculate their default fund capital charge where they make contributions. This means that, where an ADI satisfies all applicable conditions under APS 180, the ADI may apply concessional risk weightings for centrally cleared transactions, as prescribed by APS 180, to eligible trade exposures that are cleared through ASX Clear or ASX Clear (Futures).

Foreign recognition of ASX CCPs

ASX's CCPs are recognised in a number of offshore jurisdictions in order to provide services to clearing participants and their clients domiciled in those jurisdictions:

ASX CS Facility	Jurisdiction/ Regulator	Form of recognition/ Commencement date	Scope
ASX Clear ASX Clear (Futures)	European Union/ ESMA	Third Country CCP – April 2015	Allows ASX's CCPs to provide clearing services to clearing participants and clients established in the European Union.
ASX Clear (Futures)	United States/ CFTC	Exempt Derivatives Clearing Organisation – August 2015	ASX Clear (Futures) is permitted to clear proprietary swap positions (including interest rate swaps denominated in USD/EUR/JPY/GBP/AUD/NZD) for its United States clearing participants (including transactions of a parent or affiliate of a United States clearing participant).
ASX Clear (Futures)	Switzerland/ FINMA	Foreign Central Counterparty – December 2017	ASX Clear (Futures) may grant Swiss market participants supervised by FINMA direct access to its facilities as clearing participants.
ASX Clear (Futures)	New Zealand/ RBNZ & FMA	Designated FMI – March 2024	Designation provides ASX Clear (Futures) with additional protections if a clearing participant with a New Zealand branch defaults.

ASX Clear ASX Clear (Futures)	United Kingdom/ Bank of England	Eligible for Temporary Recognition Regime (following Brexit)	Provides ASX's CCPs with temporary recognition as non-United Kingdom CCPs in the United Kingdom to continue to provide clearing services for clearing participants and clients domiciled in the United Kingdom.
--	---------------------------------	--	---

Operating Rules

Each of the ASX CS facility licensees maintains Operating Rules for its facility. The Operating Rules govern matters including participation, capital requirements (where applicable), record keeping, margining and payments, trade capture and maintenance, settlement and default management. The Corporations Act provides that the operating rules of a licensed CS facility have effect as a contract under seal:

- between the licensee and each issuer of financial products in respect of which the facility provides its services;
- between the licensee and each participant in the facility;
- between each issuer of financial products in respect of which the facility provides its services and each participant in the facility; and
- between a participant in the facility and each other participant in the facility,

under which each of those persons agrees to observe the operating rules to the extent that they apply to the person and to engage in conduct that the person is required by the operating rules to engage in.

A comprehensive set of ASX's Rules, Guidance Notes and Waivers can be found on [ASX's website](#).

The Operating Rules and Procedures which govern the operation of each CS facility and specifically the rights and obligations of participants can be found at the following links:

- [ASX Clear](#), outlining the rights and obligations of participants at Section 4;
- [ASX Clear \(Futures\)](#), with participant obligations generally covered under the various sections of Part 2 of the Operating Rules;
- [ASX Settlement](#), outlining the rights and obligations of the FMI, issuers and participants at Sections 3, 5 and 6, respectively; and
- [Austraclear](#), with the rights and obligations of participants covered under Regulations 2, 3 and 4, and the rights and obligations of the FMI outlined at Regulation 6.

Further information regarding participant arrangements and requirements are set out in Guidance Note 1 *Admission as a Participant* under the Operating Rules of the relevant facility.

3.4 System design and operations

ASX Operations Pty Limited provides service arrangements across ASX.

ASX operates four clearing systems:

- CHESS (providing clearing, settlement, depository and registry services for eligible financial products executed on the market of an approved market operator);
- Derivatives Clearing System (used for clearing derivatives traded on ASX Trade);
- Genium INET (providing clearing services for derivatives traded on ASX 24); and
- Calypso (providing clearing services for OTC interest rate derivatives products).

ASX employs two main settlement technologies:

- Austraclear (providing settlement, depository and registry services for the Australian OTC debt market, and facilitating the settlement of the AUD leg of foreign exchange transactions); and,
- CHESS (providing clearing, settlement, depository and registry services for eligible financial products executed on the market of an approved market operator).

ASX's website provide participants with user guides for system design and operations [here](#).

4. Principle by principle disclosure

ASX recognises the important role of its CS facilities in maintaining systemic stability in the Australian markets and supports the objectives of the PFMI established by CPMI-IOSCO.

In this section, responses to each Principle for Financial Market Infrastructures is provided. Section 4.1 provides responses for ASX's CCPs – ASX Clear and ASX Clear (Futures). Section 4.2 provides responses for ASX's SSFs – ASX Settlement and Austraclear.

4.1 Responses for ASX's CCPs

1

Principle 1: Legal basis

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

Key consideration 1

The legal basis should provide a high degree of certainty for each material aspect of an FMI's activities in all relevant jurisdictions.

ASX operates two CCPs:

- ASX Clear Pty Limited (ABN 48 001 314 503); and
- ASX Clear (Futures) Pty Limited (ABN 91 050 615 864).

ASX's two CCPs are separate legal entities, incorporated in Australia. The two CCPs operate distinct and separate default funds.

Material aspects of ASX's CCPs' activities, and their legal basis, are:

- **Licensing:** The primary activity of ASX's CCPs is the provision of clearing services to their participants. Each of ASX's CCPs holds an Australian CS facility licence (under Part 7.3 of the Corporations Act), which provides the legal basis for these services. The relevant licences can be found on ASIC's website. ASX's CCPs have obtained recognition or exemptions in other jurisdictions, for the purpose of enabling foreign incorporated participants to participate in ASX's CCPs' clearing facilities, as necessary.
- **Legally binding nature of ASX's CCPs' Operating Rules:** Section 822B of the Corporations Act provides that the Operating Rules of each of ASX's CCPs have effect as a contract under seal between:
 - the ASX CCP and each issuer;
 - the ASX CCP and each participant;
 - each issuer and each participant; and
 - each participant and each other participant.

The Operating Rules therefore comprise a statutory contract.

- **Payment Systems and Netting Act (PSNA):** In the event that a participant in an ASX CCP enters into external administration, Part 5 of the PSNA provides certain protections under Australian law, from reversal or invalidation under the laws of any jurisdiction, for:
 - the transfer of property, rights and obligations;
 - the termination, valuation and netting of obligations; and
 - the enforcement of security, effected in accordance with the Operating Rules of the ASX CCP, as a licensed CS facility that operates an approved "netting market" (each of ASX Clear and ASX Clear (Futures) has this approval).
- **Novation:** The rules of ASX's CCPs clearly set out the points of novation for each type of trade and the limited circumstances in which ASX's CCPs can be relieved of their obligations in respect of novated trades. Part 5 of the PSNA protects the rules of the ASX CCPs relating to novation which effect the transfer and termination of rights and obligations. The novation rules are summarised in two fact sheets available on ASX's website ([ASX Clear](#) and [ASX Clear \(Futures\)](#)).
- **Segregation and portability:** The rules of ASX's CCPs support the segregation and portability of the positions and collateral of participants and their clients (other than for the comingled cash market account maintained by participants of ASX Clear). The segregation and porting rules which permit ASX's CCPs to deal with rights, obligations and property of both clients and

Responses for ASX's CCPs

their participant are validated by Part 5 of the PSNA which protects action taken by ASX's CCPs in the event of a participant default to port or otherwise deal with client and participant positions and collateral in accordance with their rules.

- **Netting:** The rules of each ASX CCP set out netting arrangements that allow the offset of obligations between a participant and the ASX CCP in the event of a default by the participant or ASX CCP, in order to reduce potential losses. Those netting arrangements are protected by Part 5 of the PSNA and are not subject to a stay under either Bank or FMI resolution regimes.
- **Recovery tools:** The rules of ASX's CCPs include a number of recovery tools comprising Recovery Assessments, variation margin gains haircutting (ASX Clear (Futures) only), partial termination, complete termination and replenishment. The recovery tools are enforceable against participants by ASX's CCPs as part of the statutory contract. To the extent that the recovery tools provide for the reduction of amounts owing to participants and the termination of rights, the recovery tools are validated by Part 5 of the PSNA and are not affected by the external administration of a participant or the ASX CCP.
- **Enforcement of security:** ASX Clear takes security over non-cash collateral provided to meet margin obligations whereas ASX Clear (Futures) currently only accepts the absolute transfer of non-cash collateral. Under Part 5 of the PSNA, the security given by a participant or client in accordance with the ASX Clear rules may be enforced in accordance with those rules. The enforcement of security is not affected by the *Personal Property Securities Act 2009* (Cth) (including its priority rules) as the PSNA applies despite any other law and expressly prevails to the extent of any inconsistency between the PSNA and Personal Property Securities Act.
- **Offshore collateral:** ASX Clear (Futures) also holds collateral offshore in New Zealand and the United States. To ensure timely access to collateral in New Zealand, ASX Clear (Futures) has obtained designation as an FMI in New Zealand. ASX has identified no legal impediments to its processes for realising and repatriating USD collateral to Australia for participants that currently post USD collateral.

All activities of ASX's CCPs take place in Australia (other than in respect of collateral held offshore by ASX Clear (Futures) in New Zealand and the United States). The legal bases outlined above apply under Australian law irrespective of the jurisdiction in which a participant in ASX's CCP may be incorporated.

ASX's CCPs have confirmed the legal basis of their activities in Australia and, for ASX Clear (Futures) only, New Zealand and the United States, through legal opinions from external counsel.

Key consideration 2

An FMI should have rules, procedures and contracts that are clear, understandable and consistent with relevant laws and regulations.

Rules, procedures and contracts in place:

- **Rules and procedures:** Each ASX CCP has its own set of Operating Rules and Procedures which govern the operation of the facility.
- **Contracts:** ASX maintains separate contract review processes in place for third party contracts. Where appropriate, ASX appoints external counsel to assist with negotiating, drafting and advising on contracts.

ASX has processes to ensure that rules, procedures and contracts are clear and understandable as follows:

- Quality control for all amendments to ASX's CCPs' Operating Rules and Procedures, including:
 - ASX management oversight and approval of the drafting of amendments;
 - Consultation with participants on all material rule and procedure amendments; and
 - The regulatory clearance process for amendments to the Operating Rules, under Part 7.3 of the Corporations Act (Division 2, Subdivision B), which involves review by ASIC and the RBA.
- ASX conducts a review of ASX's CCPs' rules and procedures on a five year cycle to identify and make changes that mitigate systemic risk or are otherwise desirable, address stakeholder feedback and replace redundant or inconsistent rules and procedures.
- For third party contracts, ASX maintains internal contract review processes.

ASX has processes to ensure that the rules, procedures and contracts are consistent with relevant laws and regulations as follows:

- ASX conducts a periodic internal review of amendments to (or introduction of) laws and regulations that affect ASX's CCPs' operations, and works with ASIC and the RBA as appropriate to amend its Operating Rules, Procedures and contracts to ensure ongoing consistency with the law.
- Amendments to the rules and procedures of ASX's CCPs are subject to review and non-disallowance by ASIC (in consultation with the RBA).
- Updates to ASX's legal opinions are commissioned when there are material changes to legislation that impact ASX's CCPs.
- ASX maintains contract review processes for third party contracts.
- The RBA conducts annual assessments of the ASX CCPs' compliance with the FSS, which provides further oversight of ASX's CCPs' consistency with the relevant laws and regulations.

Key consideration 3

An FMI 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 ASX's CCPs and the facilities' protection under the PSNA are set out on ASX's public website in the Operating Rules and Procedures, Guidance Notes, the PFMI disclosure framework document and fact sheets for the ASX CCPs that cover topics including default management, novation, client account options on ASX Clear (Futures) and investment risks for clients under the ASX Recovery Rules.

ASX Limited (on behalf of each licensed entity within the ASX Group, including the CCPs) submits an Annual Group Licence Report to ASIC. This report sets out the legal basis for the CCPs' activities (namely the licence obligations).

ASX shares the legal opinions supporting the legal basis of the activities of ASX's CCPs (and any updates to those opinions) with regulators. Where appropriate, ASX commissions and makes available to participants and/or clients of participants, on a confidential basis, external legal opinions to confirm the legal efficacy of Operating Rules that are introduced to support new ASX services or meet regulatory requirements that apply to ASX or its participants.

Key consideration 4

An FMI 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 FMI under such rules and procedures will not be voided, reversed or subject to stays.

Rules and Procedures: Section 822B of the Corporations Act provides that the Operating Rules of each ASX CCP have effect as a contract under seal between the ASX CCP, participants and issuers. The Operating Rules are enforceable as a statutory contract. Under the Operating Rules all participants submit to New South Wales governing law and the exclusive jurisdiction of the New South Wales Courts and courts of appeal from them.

Contracts: The contracts entered into by the ASX CCPs and third parties are enforceable under Australian contract law.

Actions taken by an ASX CCP under its Operating Rules:

- The status of actions taken by an ASX CCP under Australian law where one of its participants defaults and enters into administration is addressed by Part 5 of the PSNA, which provides certain protections under Australian law from reversal or invalidation under the laws of any jurisdiction for the transfer of property, rights and obligations, the termination, netting and settlement of obligations, and the enforcement of security (as applicable) effected in accordance with the Operating Rules of ASX's CCPs.
- ASX has analysed the legal enforceability of the rules of ASX's CCPs upon their entry into external administration (including statutory management) and has identified no material legal risk to enforceability. In particular, the rules of ASX's CCPs give participants the right to terminate novated contracts in the event that the ASX CCP defaults on its obligations, with calculation of a net obligation to or from each participant on termination (close-out netting). In the event of external administration (including statutory management), close-out netting in accordance with the rules of ASX's CCPs will be validated and not subject to a stay. The protections for close-out netting continue to apply under the FMI recovery and resolution framework introduced into Australian law in 2024.
- ASX's CCPs have bank participants incorporated in Australia and several offshore jurisdictions (including Europe, the United Kingdom and Switzerland). ASX's CCPs also have participants that are subsidiaries of United States banks and United States bank holding companies. Notwithstanding the bank resolution frameworks that apply to these participants, actions taken by ASX's CCPs to manage the default of a participant is not subject to a stay on termination that local or foreign bank Resolution Authorities may assert, except where a bank participant in resolution continues to meet its obligations to the ASX CCP.

Legal opinions: To ensure legal certainty in connection with their activities, ASX's CCPs obtain legal opinions as to the enforceability of key rules in all relevant jurisdictions.

Key consideration 5

An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.

All of the activities of ASX's CCPs take place in Australia (other than in respect of collateral held offshore by ASX Clear (Futures) in New Zealand and the United States).

The Operating Rules of ASX's CCPs are governed by Australian law and participants submit to the jurisdiction of the courts of New South Wales. This means Australia is the relevant jurisdiction for enforcement of the rules.

Responses for ASX's CCPs

ASX has confirmed that Australian law applies to the legal bases outlined in key consideration 1 irrespective of the jurisdiction in which a participant in the ASX CCP may be incorporated. This means there is no conflict of laws issues in relation to these matters.

ASX Clear (Futures) holds collateral offshore in New Zealand and the United States. To ensure timely access to collateral in New Zealand, ASX Clear (Futures) has obtained designation as an FMI in New Zealand. ASX has identified no legal impediments to its processes for realising and repatriating USD collateral to Australia for participants that post USD collateral.

2

Principle 2: Governance

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

Key consideration 1

An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.

ASX's strategy includes ensuring that ASX continues to deliver on its licence obligations and that it has risk, compliance and operating frameworks which are actively maintained at an appropriately high standard.

ASX recognises that as an operator of clearing (and settlement) facilities it is critical that it leads by example, with good corporate governance and effective risk management. As a provider of critical financial infrastructure, ASX also recognises that it has a responsibility to support the integrity of its clearing (and settlement) facilities.

ASX's Stakeholder Charter sets out commitments to the financial community and communicates how ASX balances the interests of customers, shareholders, regulators and the broader financial markets.

Each CCP has a specific strategy document that has been developed by the CS Lead Executives and approved by the CS Boards that explicitly places a high priority on the safety of the facility, supports the stability of the financial system and other relevant public interest considerations. These strategy documents are reviewed annually, with objectives and goals reset as appropriate.

Progress against CCP goals is monitored regularly, with updates also provided to the CS Boards.

ASX has published a document, [Fair and Effective Clearing and Settlement Facilities](#), which articulates how ASX interprets its obligation under the Corporations Act to do all things necessary, to the extent that it is reasonably practicable to do so, to ensure that the services of each of its licensed clearing and settlement facilities are provided in a fair and effective way.

In performing their responsibilities, ASX's CCPs will have regard to the stability of the broader financial system, and other relevant public interest considerations as set out in the CS Boards Charter. The CS Boards Charter also refers to the statutory obligations of the CS Boards under the Corporations Act, which also include, but are not limited to, doing all other things necessary to reduce systemic risk, providing ASX's CCPs' services in a fair and effective way and having adequate conflict handling and compliance arrangements.

ASX has established a compliance function that oversees compliance by its clearing participants to ensure its regulatory function is segregated from its commercial governance.

Key consideration 2

An FMI 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.

Governance arrangements

Governance arrangements are documented in the CS Boards, ASX Limited Board and ASX Board Committee Charters.

The CS Boards provide leadership, guidance and oversight of the clearing and settlement operations of the CS subsidiaries, including management of clearing and settlement risk. The CS Boards have a number of Committees (see key consideration 3).

As set out in the CS Boards Charter, the non-ASX directors on the CS Boards:

- manage and make any variations to the decision process for those Boards, to determine whether there is an intra-group conflict;
- meet without the directors who are also directors of ASX, to consult on, and discuss, intra-group conflicts; and
- determine the process for managing the intra-group conflict by those Boards including making any recommendations to those Boards that they consider appropriate.

Responses for ASX's CCPs

When appropriate, the CS Boards establish forums to consult with participants on matters impacting operational or risk management aspects of participants' businesses. ASX's Stakeholder Charter sets out how ASX seeks to balance the interests of its customers, shareholders, regulators and the broader financial markets and summarises ASX's approach to engaging with each stakeholder group. The CS Boards have delegated the management of the CS Subsidiaries to the Managing Director and CEO of ASX. Except for those matters reserved by the CS Boards or delegated by the CS Boards to ASX Board Committees, the CEO may make all decisions and take all action required to manage the CS subsidiaries.

The Group Executive, Securities and Payments, and the Group Executive, Listings and Markets, are the CS Lead Executives responsible for the operation of ASX's CCPs. The CEO is accountable for ensuring that sufficient resources are made available for the operation of ASX's CCPs.

The Chief Risk Officer (CRO) is responsible for developing and maintaining the clearing and settlement risk management framework for the CS subsidiaries.

The CS Boards have delegated the performance of compliance and enforcement functions of the CS facility licensees to the Chief Compliance Officer.

The CRO and CS Lead Executives are appointed and terminated by the CEO, who will consult with the CS Boards on this matter.

ASX has written agreements with executives setting out the terms of their appointment. Accountability statements are in place for all ASX executives setting out the allocation of responsibilities to executives across ASX's operations.

Disclosure of governance arrangements

The Charters of the CS Boards, ASX Limited Board and ASX Board Committees are published on ASX's website, along with the ASX Director and ASX Executive Team members' profiles.

ASX publishes an annual Corporate Governance Report in the Annual Report, which follows the Corporate Governance Council's Principles and Recommendations.

ASX's CHES Governance Statement is available on ASX's website.

ASX uses a number of avenues to convey important updates and information to its stakeholders (including customers, regulators, partners/service providers, government, media, associations, ASX's investment community and ASX people) as set out in ASX's Stakeholder Charter. It also engages with associations, government and public policy, including working groups and member forums, project/program consultations and board level engagement with the government.

Accountability for owners, participants and other relevant stakeholders

The ASX Cash Equities Clearing and Settlement Code of Practice (Code of Practice) sets out ASX's commitments to comply with the Council of Financial Regulators' Regulatory Expectations for the Conduct of Cash Equity Clearing and Settlement Services in Australia (Regulatory Expectations), and its commitment to users in managing cash equities clearing and settlement infrastructure and services for the Australian market.

This includes the role of the ASX Business Committee as a mechanism for input into ASX's governance framework. In April 2024 the Code of Practice was updated to also reflect the function of the ASX Cash Equities Clearing and Settlement Advisory Group (Advisory Group) convened in September 2023 as a further stakeholder forum for input on strategic matters relating to clearing and settlement services and associated infrastructure, the associated regulatory expectations introduced at that time, and the interaction of the Business Committee with the new Advisory Group. The ASIC CS Services Rules were made in February 2025. These rules implement the Regulatory Expectations as enforceable obligations on ASX and impose a number of additional obligations. The Business Committee comprises representatives of clearing participants, settlement participants, approved market operators, other relevant stakeholders and their associated industry organisations.

The CHES Replacement Technical Committee was established in February 2023 as a sub-committee of the Business Committee and provides a forum for ASX and industry to focus on the replacement of CHES. The CHES Project is a key development for cash equities clearing and settlement in Australia. ASX has given careful consideration to its engagement program with key stakeholders through the delivery of this project, including a range of working group forums and formal consultation.

ASX Clear (Futures) holds a quarterly working group with its clearing participants to provide input on proposed initiatives, product updates and relevant clearing risk updates. Further to this, ASX has embarked on a multi-year program to uplift the technology that underpins its derivatives clearing services (ClearStar Program). ASX has established a ClearStar Program Committee which acts as a stakeholder forum for consultation and input on this transformation.

Key consideration 3

The roles and responsibilities of an FMI'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.

Roles and responsibilities of the Board

Key responsibilities of the CS Boards, as set out in the CS Boards Charter, include:

- providing leadership, guidance and oversight of the clearing and settlement operations of the CS entities;
- reviewing and approving the strategy developed by management to comply with the CS facility licensees' statutory and regulatory obligations, and to monitor the execution of the strategy approved by the CS Boards;
- setting the financial and counterparty risk tolerances and key risk indicators related to the operation of the CS facility licensees;
- together with the ASX Board, approving the risk tolerances and key risk indicators for the risk categories set out in the ASX Group risk appetite statement as they apply to the CS facility licensees;
- reviewing and approving the ERMF together with any specific risk frameworks related to the operation of the CS facility licensees; and
- overseeing the adequacy of internal controls, systems and processes for the management of clearing and settlement risks of the CS facility licensees.

The responsibilities of each non-executive director of the CS Boards are set out in their accountability statement.

Conflicts of interest (board members)

Directors are required to disclose all interests that may conflict with their duties as a director of CS entities. A register of director's interests is provided to the CS Boards at each meeting. A register of committee members' interests is also provided to committee meetings. If there is a change to a director's material personal interests, the director must notify that change at or prior to the next CS Boards meeting. If a director has a material personal interest in a matter being considered by a board or committee, they must not be present during the consideration of that matter or vote on the matter, unless approved by other directors who do not have a material personal interest in the matter. Directors are expected to take reasonable steps to avoid actual or perceived conflicts of interest.

Board committees

The ASX Board has established a Board Risk Committee which also serves as a Committee of the CS Boards. The CS Chair (or another non-ASX director in their absence) is a regular attendee of the Board Risk Committee. The CS Boards have delegated to Board Risk Committee certain matters specified in the CS Charter including assisting the CS Boards to review and oversee the arrangements for the CS facility licensees to achieve compliance with their statutory obligations as licence holders with the exception of those matters carried out by the Technology Committee and the Audit and Supervision Committee.

The Nomination Committee assists the CS Boards in considering nomination matters relevant to the CS Boards.

The People and Culture Committee assists the CS Boards in considering remuneration matters relevant to the CS Boards.

The Technology Committee assists the CS Boards in considering technology, data and cyber resilience matters relevant to the CS Boards.

The Audit and Supervision Committee assists the CS Boards in considering the general corporate financial risk relevant to the CS Boards.

Board and directors performance

The CS Boards assess their performance, and the performance of individual directors annually. The reviews are conducted to help ensure the CS Boards continue to operate effectively and efficiently. The CS Boards may, in consultation with the Nomination Committee, determine to engage an external consultant to conduct the performance assessment.

Key consideration 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).

Board members' skills

The CS Boards are collectively comprised of directors with the skills and expertise necessary to discharge their respective responsibilities. In consultation with the Nomination Committee, the CS Boards will at least annually review the skills and experience represented by directors on each board to determine whether the CS Boards collectively has the mix of skills and

Responses for ASX's CCPs

experience which is relevant to fulfil their responsibilities. The CS Boards have developed the CS Board Skills Matrixes to capture the mix of skills, knowledge and experience relevant to the CS Boards.

Board members' remuneration

The People and Culture Committee assists the CS Boards to oversee executive remuneration and non-executive director remuneration arrangements. Non-executive director fees are set to ensure:

- ASX non-executive directors are remunerated fairly for their services, recognising the workload and level of skill and experience required for the role; and
- ASX can attract and retain talented non-executive directors.

The People and Culture Committee may take advice from an external expert to assist the committee in carrying out its responsibilities. Independent non-executive CS Board directors do not receive any performance-related remuneration.

The CS Boards have approved guidelines on director tenure.

Board independence

The CS Boards are comprised of a majority of directors who are non-executive and have been assessed by the Board as independent. ASX's website discloses which CS Directors are independent.

In determining independence, the CS Boards consider whether the director is free of interests that could (or could be perceived to) materially interfere with the independent exercise of the director's judgement and the capacity to act in the best interest of the ASX Group company that they are director of. Examples of factors considered as part of ASX's independence assessment include employment at ASX in an executive capacity within three years, in a material business relationship to ASX Group entities, a substantial shareholder, personal close ties and tenure of directorship. These are included in the ASX Group Board Policy and Guideline to Relationships Affecting Independent Status as well as materiality thresholds. This policy is published on ASX's website.

The CS Boards review the independence of each director prior to their appointment, annually against the ASX Group Board Policy and Guideline to Relationships Affecting Independent Status as well as having regard to disclosures made by directors at board meetings of any new interests, positions, affiliations or other relationships.

The Nomination Committee also reviews and makes recommendations to the CS Boards on the independence of non-executive directors.

The ASX Clear and ASX Settlement Boards comprise at least 50% non-executive directors who are also directors of ASX (non-ASX directors). The CS Boards ensure that a quorum can be constituted by non-ASX directors.

The CS Board chair of each of the CS facilities is an independent non-executive director and a non-ASX director.

The CS Boards also have meetings of non-ASX directors to:

- consider competitively sensitive information acquired in the course of providing clearing and settlement services to another market operator or listing venue; and
- oversee the provision of clearing and settlement services to another market operator or listing venue.

The non-ASX directors on the CS Boards shall:

- manage (and make any variations to) the decision process for those Boards to determine whether there is an intra-group conflict;
- meet without the directors who are also directors of ASX, to consult on, and discuss, intra-group conflicts; and
- determine the process for managing the intra-group conflict by those Boards including making any recommendations to those Boards that they consider appropriate.

Key consideration 5

The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.

Roles and responsibilities of management

The Group Executive, Securities and Payments, and the Group Executive, Listings and Markets, have been appointed as the CS Lead Executives responsible for the operation of ASX's CCPs (and SSFs).

The Group Executive, Securities and Payments is accountable for the management of ASX Clear's CS facility licences.

The Group Executive, Listings and Markets is accountable for the management of the ASX Clear (Futures) CS facility licence.

Each CS Lead Executive is accountable to the CS Boards for the operation of the relevant ASX CCP, developing objectives, strategies and goals for the CS facility in a manner that aligns with ASX's risk appetite (subject to CS Boards review and approval) and delivering the objectives, strategies and goals approved by the CS Boards.

Responses for ASX's CCPs

The main roles and responsibilities of members of the Executive Team relevant to CS operations (being the CEO, CS Lead Executives, CRO and Chief Compliance Officer) are set out in the CS Boards Charter and are more fully documented in accountability statements which set out the allocation of responsibilities to executives across ASX's operations.

The CHESS Governance Statement also contains an outline of the roles and responsibilities of management and a summary of accountability statements for relevant members of the Executive Team relating to CHESS operations, the CHESS Roadmap and the CHESS Project.

ASX has established three key internal management committees comprised of senior executives to support the Boards and Executive Management in discharging their responsibilities by providing a forum to accountable executives for discussion and constructive challenge.

- The Management Risk Committee is chaired by the CRO and has oversight of the implementation of ASX's ERMF, risk policies and frameworks and considers general risk matters consistent with the ASX Board's risk appetite. The Management Risk Committee reports to the CS Boards, Board Risk Committee and Audit and Supervision Committee as appropriate on matters relevant to those bodies.
- The Strategic Policy and Rules Committee is chaired by the Group General Counsel and develops and approves policies, and considers updates on regulatory and government engagement and ASX rule changes. The Chair of the Strategic Policy and Rules Committee reports to the ASX Boards and Board Committees as appropriate on matters relevant to those bodies.
- The Technology Management Committee is chaired by the Chief Information Officer and has oversight of IT security matters, systems updates and incident management and considers emerging technology, operational and security risks. The Technology Management Committee reports to the ASX Boards and the Board Technology Committee as appropriate on matters relevant to those bodies.

The board sets financial and non-financial goals for the CEO at the start of the financial year, having regard to the strategic objectives set by the board. The CEO is responsible for setting goals for each executive having regard to those objectives, the Group Scorecard and the accountabilities of the executive's role.

Performance evaluation of Group Executives includes:

- The CEO makes recommendations to the People and Culture Committee on the individual performance rating of each member of the Executive Team, including those who are Executive Key Management Personnel, having regard to, among other things, the feedback from the CRO and, where applicable, feedback from CS Boards and Board Committees.
- The ASX Chair makes recommendations to the People and Culture Committee on the performance of the CEO, having regard to, among other things, the feedback from the CRO and the ASX and CS Non-Executive Directors.
- The People and Culture Committee considers the CEO's and the ASX Chair's recommendations and makes final recommendations to the CS Boards on the outcomes of the performance review processes.

Experience, skills and integrity

The members of the Executive Team have breadth and depth of experience, including but not limited to trading, clearing and settlement business, banking, technology, operations, risk management and regulation. The detailed profiles of the Executive Team are published on ASX's website.

ASX undertakes comprehensive reference checks before appointing a senior executive including education, employment, character, criminal history and bankruptcy checks.

Relevant regulatory agencies are notified of appointments.

Key consideration 6

The board should establish a clear, documented risk management framework that includes the FMI'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.

Risk management framework

The ASX Limited Board has delegated the Board Risk Committee to review the ASX risk management framework for identifying, monitoring and managing significant business risks across the ASX and consider whether the risk management framework and internal controls effectively identify areas of potential or material risk.

ASX's risk appetite statement is a central component of ASX's risk management framework and describes the risk types encountered in ASX's business. Risk tolerance levels are expressed through Board level key risk indicators and organisational key risk indicators are cascaded throughout ASX to assist employees in their day-to-day management of risk. This helps ensure the whole organisation operates within agreed risk tolerance boundaries.

The CS Chair (or another non-ASX director in their absence) is a regular attendee at the Board Risk Committee meetings where ASX's risk strategy and appetite on an enterprise-wide level are considered and has the opportunity to provide input at those meetings. The CS Lead Executives are responsible for providing input on ASX's risk appetite.

Responses for ASX's CCPs

The CS Boards review and approve the risk management framework and oversee the adequacy of internal controls, systems and processes for the management of clearing and settlement risks of the CS facility licensees. They also manage the CS Subsidiaries within ASX risk appetite and risk tolerances set by the CS Boards.

The CS Boards ensure adequate governance surrounding the adoption and use of risk management models by setting policies and standards for the minimum level of review and governance steps which are required for margin models.

The Board Risk Committee assists the CS Boards to fulfil its oversight responsibilities in respect to clearing and settlement risks and it reports to the CS Boards on matters that may impact on CS operations.

Dedicated Enterprise Risk and Compliance and Clearing Risk functions are responsible for establishing and maintaining formal risk frameworks, policies and minimum standards, and support the Management Risk Committee and Board Risk Committee. These functions report to the CRO, who in turn reports to the CEO.

The ERMF has been developed with reference to leading practice global risk management standards. See Principles 3 and 17 for further details.

The management of clearing and settlement risks are documented and describe policies in respect to financial risks including: credit and counterparty risk, default management, liquidity risk and investment risk.

Risk profiles are formally self-assessed annually as part of an enterprise-wide risk self-assessment program focusing on risks and controls within each business unit. Review of risk and controls is also provided by each line of business as part of quarterly risk working groups. Risk profiles are also reviewed and updated in the event of restructure, process adjustment and/or other material change to a business area.

ASX has a Crisis Management Team and a Default Management Committee that are in place to manage a crisis or an event of default, with supporting documentation and regular fire drills to review plans and procedures to ensure ASX's response to and management of a crisis or default is well coordinated and effective.

Risk management function

Enterprise Risk and Compliance is an independent function responsible for establishing and maintaining a formal framework, and appropriate training aimed at improving risk management and promoting common risk terminology and concepts applicable across ASX.

Enterprise Risk and Compliance acts in a second line assurance and advisory role, working with management to ensure the business has appropriately identified, measured and managed risk within its risk appetite.

Internal audit function

The General Manager Internal Audit reports to the Chair of the Audit and Supervision Committee, the Chief Financial Officer, for administrative purposes, and has direct access to the ASX CS Boards.

Through performing various assurance activities, Internal Audit provide objective confirmation that the ERMF continues to be designed and operating effectively. The responsibilities and authority of the Internal Audit function are contained in the Internal Audit Charter which is published on ASX's website.

Internal Audit is authorised to have unrestricted access to all functions' records, property and personnel and the General Manager Internal Audit is authorised to:

- allocate resources, set frequencies, select areas of focus, determine scopes of work and apply the techniques required to accomplish audit objectives; and
- engage specialist resources (internal and external) to supplement the skills of the internal audit function as required to fulfil the requirements of the audit plan.

Risk management of models

The CS Boards oversee and satisfy themselves that there is adequate governance surrounding the adoption and use of models (such as margining models). The CS Boards have visibility and oversight of the validation of key ASX CCP models which include:

- Key risk indicators are reported to the CS Boards on Initial Margin (IM) model performance.
- Key ASX CCP models are reviewed on a conceptual basis annually by a third-party. This process is managed by the Internal Audit function. The results of the model review are tabled at the quarterly Audit and Supervision Committee meetings.

The Model Risk Management Group, an internal ASX CCP validation group, that is part of the Clearing Risk function, independently validates new high and medium risk models as well as existing models on a periodic basis (frequency is based on the risk rating of the model i.e. high risk models are reviewed more frequently than low risk models). Any significant changes that result from this validation are reported to the CS Boards.

Key consideration 7

The board should ensure that the FMI'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 Stakeholder Charter. ASX's Stakeholder Charter:

- represents ASX's commitment to develop genuine engagement and foster strong partnerships within the financial community;
- sets out the key principles that underpin ASX's approach to stakeholder engagement;
- identifies key stakeholders and communicates how ASX engages with each group; and
- promotes open and transparent communication, through collaborative relationships with all ASX stakeholders, customers, partners, associations, regulators, government, the investment community, media and ASX employees.

ASX's key principles for stakeholder engagement include being:

- transparent and accountable;
- consultative and balanced; and
- proactive and future focused.

Consultation processes include operational arrangements, risk controls and default management rules and procedures. Details of all public consultation and non-confidential submissions received are published on ASX's website.

The Business Committee and Advisory Group (see key consideration 2) provide stakeholder input to the Boards of ASX Clear and ASX Settlement on cash equities clearing and settlement services and associated infrastructure.

The ASX Clear and ASX Clear (Futures) Risk Consultative Committee are forums established by ASX Clear and ASX Clear (Futures) for the purpose of consulting with their clearing participants in relation to matters which may have an impact on the risk management of ASX's CCPs and their clearing participants – this includes, but is not limited to, the risk models of ASX's CCPs, ASX's CCPs' stress testing frameworks, ASX's CCPs' margining approaches, changes to key clearing risk policies, results of clearability assessments and all other relevant matters which may have an impact on the risk management of ASX's CCP and its clearing participants.

The ASX Clear (Futures) Clearing Working Group is a two-way forum seeking participant input on commercial, technical and operational aspects of the derivatives clearing service, along with providing details of any upcoming service changes (inclusive of legal, operations, technical and risk changes). These forums are scheduled quarterly.

The ASX Clear (Futures) Default Management Group is a pre-nominated group of trading and risk professionals from non-defaulting counterparties appointed to assist and provide advice to ASX in managing the default of a counterparty.

Disclosure

ASX publishes its Annual Reports, which describes to investors its business objectives, financial statements and strategic direction. ASX also releases its financial results on a half yearly basis.

3

Principle 3: Framework for the comprehensive management of risks

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

Key consideration 1

An FMI 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 FMI. Risk management frameworks should be subject to periodic review.

Risks faced by ASX's CCPs are considered under seven key risk categories with the objective of providing a common risk lexicon to support business risk identification and assessment, and to facilitate organisation-wide monitoring, reporting and analysis of risks. The seven risk categories are strategic, operational, technology, counterparty, financial, regulatory and legal, and reputation.

ASX's ERMF has been developed with reference to leading practice global risk management standards, in particular ISO 31000:2018. It describes elements that help enable ASX to manage its key risks and supports assurance that ASX's risk management and internal control environment is designed appropriately and operating effectively. Core components include risk profiling and assessment, control testing, key risk indicators, fraud control, incident management, risk issue management, crisis management and business continuity and second line oversight of project risk management. These core elements are complemented by specific risk management processes, minimum standards and practices including establishing the context, identification and assessment, treatment, monitoring, reporting and communicating risk.

The ERMF is reviewed on an annual basis with material changes approved by the Board Risk Committee. Review of the operating effectiveness of the ERMF is also performed every three years by an independent expert.

Management and monitoring of risk profiles, risk issues, key risk indicators and control improvement action plans is supported by ASX's Governance, Risk and Compliance (GRC) application. This application is the core repository for all risks, issues, controls and action plans across ASX, including risks and controls specifically related to the integrity, resilience, reliability and security of ASX's CCPs. The GRC application enables both a line of business and aggregated overview of risk and control profiles across the ASX business and supports and informs quarterly risk reporting information to Board Risk Committee and CS Boards.

ASX's Compliance Management Framework (CMF), which aligns with the ISO 37301:2001 compliance management systems, provides processes, systems and tools to facilitate effective regulatory risk management and compliance with obligations applicable to ASX's CCPs. The CMF is reviewed on an annual basis with material changes approved by the Board Risk Committee. Review of the operating effectiveness of the CMF is also performed every three years by an independent expert.

ASX's Clearing Risk Policy Framework sets out a comprehensive set of clearing and treasury risk policies to support the risk management approach of ASX's CCPs. Clearing risk specific policies are reviewed either on an annual or biennial basis with material changes approved by the CS Boards.

ASX has a Policy Design and Review Handbook, which sets out governance arrangements for ASX policies and associated procedures and systems, including a policy cycle review process.

The ERMF, CMF and other policies and procedures are the subject of internal and external review. ASX's Internal Audit department routinely monitors compliance with operational frameworks and policies, reporting to the Audit and Supervision Committee on a quarterly basis. Audit findings may prompt a review of a framework and/or policy, which would be conducted in consultation with key stakeholders. Internal Audit includes CCP activities in its risk based audit plan. The Internal Audit Charter is published on ASX's website.

ASX's Clearing Risk function operates systems that identify key risk indicators, including:

- Margins (both overnight and intraday);
- Capital stress testing (capital adequacy);
- Liquidity stress testing;
- Clearing participant – capital based position limits;
- Treasury investment monitoring;

Responses for ASX's CCPs

- Commitment calculations/recovery assessments;
- Market movement/market erosion;
- Collateral management;
- Counterparty risk assessment (capital monitoring);
- Back testing;
- Reverse stress testing; and
- Margin rate setting.

Key consideration 2

An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.

Participants are incentivised to manage their risks through participant contributions of the default funds, margin requirements and additional initial margin requirements.

Information such as daily gross and net positions, and margin requirements is provided to clearing participants to allow them to manage their risks.

Penalties for non-compliance with ASX's CCPs Operating Rules may be applied.

Participants may be required to seek alternative clearing arrangements if they are unable to manage their risks to a level acceptable to ASX's CCPs.

Key consideration 3

An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers and service providers) as a result of interdependencies and develop appropriate risk management tools to address these risks.

Periodic assessments of material risks posed by external entities to ASX's CCPs are performed, and include credit, liquidity, general and operational risk management, business continuity arrangements and recovery planning.

Review of material risks posed by external entities to ASX's CCPs are encompassed under the enterprise-wide annual risk self-assessment program. Review of risks and controls is also performed as part of quarterly line of business risk working groups, and risk profiles are also reviewed and updated in the event of any organisational restructure, process adjustment and/or other material change to a business area. Further, the risk self-assessment program, which is part of the ERMF is subject to internal review.

Key consideration 4

An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.

ASX's Business Continuity Management Framework (BCMF) has clearly stated objectives and is supported by a range of other internal documents to support ASX's CCPs rapid recovery and timely resumption of critical operations following a disruption to a service. Examples of these internal documents include the Business Continuity Management (BCM) Exercise Framework, BCM Scenario Risk Assessment, ASX Crisis Management Plan and Incident Management Framework. ASX's business continuity arrangements are underpinned by permanent dual-site operational teams in place with sufficient resources, capabilities and functionalities and appropriate staffing arrangements at both the primary and alternate operations sites. The primary and backup data centres are geographically separated. These arrangements enable ASX's CCPs to operate under a broad range of circumstances including wide-scale disruptions.

ASX's CCPs conduct periodic business impact analysis and maintain business continuity plans detailing the operational responses to events that pose a significant risk of disrupting operations. The plans identify and address events such as technology failure, employee unavailability, pandemic, cyber-attack, greater Central Business District (CBD) inaccessibility and primary site and systems unusable. These plans are reviewed annually.

ASX has an Orderly Wind-Down Plan that applies to both CCPs and is reviewed annually.

ASX's CCPs regularly test their business continuity arrangements consistent with a BCM Exercise Framework that sets out exercise requirements. Dual site operational teams across the primary and alternate secondary operations sites effectively test

Responses for ASX's CCPs

backup operational processes on a continuous basis. Live tests, where clearing and settlement services are provided in real time from the alternate backup data centre site, are conducted annually.

In addition to the BCMF, ASX's CCPs maintain a Recovery Plan which sets out how ASX's CCPs plan to ensure they continue to provide their critical operations in recovery situations. The Recovery Plan is reviewed on an annual basis and includes:

- An assessment of the CS facility recovery tools against the desirable characteristics of recovery tools set out in the CPMI-IOSCO Recovery of Financial Market Infrastructures guidance.
- An assessment of the operational readiness to actually implement the Recovery Plan/tools.
- An assessment of ASX's CCPs ability to meet its replenishment obligations under the Recovery Rules.

4

Principle 4: Credit risk

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

Key consideration 1

An FMI 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 exposure may arise from current exposures, potential future exposures, or both.

ASX's CCPs have a robust risk framework to manage credit risk exposures, which includes, but is not limited to:

- Clearing participant membership requirements regarding their operational and financial capabilities. Prior to being admitted to a CCP, a clearing participant must meet the CCP's minimum capital requirements and then continue to meet these while a member, as monitored monthly via their submissions of financial returns to ASX's CCPs. This seeks to ensure that only entities with an adequate level of financial resources are admitted and remain as a member.
- Measuring and monitoring actual and potential future exposures using the latest available position and price information through Initial Margin (IM) and Credit Stress Testing (CST). ASX's CCPs actively evaluate the adequacy and appropriateness of its IM and CST framework by assessing model performance as well as industry expert advice.
- To prevent the build-up of exposures, ASX's CCPs perform mark-to-market valuation of positions and require clearing participants to collateralise exposures in arrears, on a daily (ASX Clear) and intraday (ASX Clear (Futures), over four intraday margin cycles) basis.
- Where exposures, as measured by CST, exceed pre-established Stress Test Exposure Limits (STELs), Additional Initial Margins (AIMs) are collected to prevent exposure accumulation. A clearing participant's STEL is informed by both its credit quality as well as its historical exposures.
- Both CCPs maintain a pool of pre-funded financial resources (default fund) comprising, in the case of ASX Clear CCP-only capital, and in the case of ASX Clear (Futures) both CCP and clearing participant capital.

Key consideration 2

An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk management tools to control these risks.

ASX's CCPs identify sources of credit risk according to the clearing model and categorise the sources as stemming from clearing participants, custodian institutions and interdependencies with other FMIs.

ASX Clear exposures are measured at end-of-day only using closing positions, prices and collateral information. In addition, the ASX Clear intraday CST exposure is proxied and monitored. ASX Clear (Futures) credit exposures are measured, monitored and recalculated on an hourly basis, using the latest available positions and prices.

Responses for ASX's CCPs

ASX's CCPs' Operating Rules and Procedures detail the CCPs' credit risks and provide the CCPs with processes to control and manage these risks.

The CCPs have the ability, through their models and systems, to calculate and monitor participants' credit standing and credit exposures to participants. The following are used:

Margining framework

- IM and Variation Margin (VM) are calculated and called daily and intraday (on an ad hoc basis for ASX Clear and on a scheduled basis for ASX Clear (Futures)) to cover potential losses from participant defaults.
- Intraday margin calls are initiated by 2.00pm to ensure timely settlement within Austraclear's operating hours.
- AIMs are triggered when CST results exceed STELs. On index rebalance dates, where large transaction volumes are anticipated, ASX Clear pre-calls AIMs intraday to be settled same day.

Mark-to-market and exposure monitoring

- Positions are marked-to-market daily and intraday using latest available price data.
- Credit exposures are recalculated at end-of-day for ASX Clear and hourly for ASX Clear (Futures).

Concentration limits

- ASX's CCPs apply Capital-Based Position Limits and monitor exposures relative to participants' net tangible assets.
- Concentrated or illiquid positions may also attract additional margin requirements such as liquidity margin add-ons.

Credit stress testing

- Daily and, where appropriate, intraday CST calculations simulate extreme but plausible scenarios to assess exposures relative to STEL levels and whether AIMs are required.
- Specific wrong way risk scenarios are used for ASX Clear to capture the wrong way risk for participants who clear securities in their own name.

Settlement mechanisms

- RTGS and DvP: The CCPs use RTGS and DvP mechanisms to reduce settlement risk. These ensure that securities are delivered only if payment is received, minimising credit exposure.

Participant monitoring and controls

- ASX's CCPs maintain a watch list of participants with potential financial, operational or reputational issues.
- ASX's CCPs can impose activity restrictions or additional credit controls if a participant's credit standing is in doubt.

Key consideration 4

A CCP 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 CCP that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.

ASX's CCPs are considered systemically important in Australia and the European Union. In addition, ASX Clear (Futures) is considered systemically important in New Zealand. The CCPs maintain financial resources sufficient to cover current and potential future exposures with a high degree of confidence. These resources are calibrated to withstand the default of the two clearing participants and their affiliates that generate the largest aggregate credit exposure under extreme but plausible market conditions (Cover 2).

The CCPs have a robust risk framework to manage their credit risks outlined in their Operating Rules and Procedures.

The CCPs' Operating Rules and Procedures provide it with powers to ensure that they can cover current and potential future exposures to Participants with a high degree of confidence using margin and other prefunded financial resources.

The CCPs' Operating Rules and Procedures detail the prefunded financial resources and the order in which these are applied in a default.

The CCPs perform CST daily to ensure that with a high degree of confidence, financial resources cover current and potential future exposures stemming from the default of the two largest clearing participants and their affiliates.

Further details on the risk mitigation techniques available to ASX's CCPs to help manage a participant default are set out on [ASX's website](#).

Key consideration 5

A CCP 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 CCP should have clear procedures to report the results of its stress tests to appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources. Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP 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 CCP's required level of default protection in light of current and evolving market conditions. A CCP 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 CCP's participants increases significantly. A full validation of a CCP's risk management model should be performed at least annually.

ASX's CCPs stress-test and ensure sufficiency of total financial resources by:

- Conducting rigorous stress testing to ensure that sufficient total financial resources are available in the event of the default of the two largest clearing participants and their affiliates.
- Stress scenarios being calibrated to extreme but plausible market conditions, targeting the key risk factors that drive most of the exposure. Parameters and conservative stressed period of risk assumptions are defined and applied accordingly to ensure all products are stressed appropriately in each stress scenario.
- Stress testing of positions being conducted on a daily and where appropriate intraday basis.
- The Operating Rules and Procedures giving ASX's CCPs the power to adjust the stress testing methodology to account for any structural changes in the markets they clear, or to capture significant position concentrations on CCP capital.

Model validation occurs in line with the CCPs' Model Risk Framework, which defines validation and reporting methods of model reviews. Model validation is performed on a regular basis in compliance with the RBA's FSS requirement for independent and comprehensive model reviews.

Key consideration 6

In conducting stress testing, a CCP 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.

ASX's CCPs CST models consider three types of stress scenarios which include relevant peak historic price volatilities, shifts in other market factors and simultaneous default of two clearing participants and their affiliates over assumed stressed period of risk:

- Historical scenarios are based on actual events that have happened in the past where key risk factors (prices, volatilities and yield curves) have experienced severe moves. These risk factors are used to identify dates on which the other risk factors receive shocks that would have occurred contemporaneously.
- Hypothetical scenarios are based on expert judgement and are intended to be forward looking, anticipating emerging or otherwise yet to be seen risks. These are reviewed on an ongoing basis and are informed by market experts via the Stress Testing Advisory Group.
- Theoretical scenarios are based on a statistical model that is calibrated using historical returns, but is also parameterised, such that certain risk factor scenarios that have not yet been observed historically can be simulated.

ASX Clear (Futures) stress testing encompasses 460 historical, 157 hypothetical and 68 theoretical scenarios. ASX Clear stress testing encompasses 518 historical, 50 hypothetical and 240 theoretical scenarios. A subset of each CCP's historical and hypothetical scenarios are common to both CCPs.

Key consideration 7

An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.

ASX's CCPs have powers through the ASX Recovery Rulebook to fully address any credit losses and liquidity shortfall they may face from participant default and to replenish their financial resources following a participant default.

Responses for ASX's CCPs

In addition to the powers to use the defaulter's collateral and the prefunded mutualised default resources to address credit losses, the recovery rules provide ASX's CCPs with the following additional loss allocation tools:

- For recovery assessments, each ASX CCP has the power to call for additional cash contributions from non-defaulting participants. These are capped in aggregate at \$300 million for ASX Clear and \$600 million (less defaulter's contribution) for ASX Clear (Futures), with individual caps also applicable for each participant, for each default period.
- For payment reduction (also referred to as Variation Margin Gains Haircutting or VMGH), ASX Clear (Futures) only has additional power to reduce (haircut) a broad range of its payment obligations to participants (e.g. VM payments due to participants with net in-the-money positions). This would not apply to obligations to repay IM.
- For partial termination, ASX Clear and ASX Clear (Futures) have the power to terminate a subset of contracts rather than all positions to reduce residual risk and avoid full market disruption.
- For complete termination, as a last resort, each of ASX's CCPs would have the power to terminate all open contracts at the ASX CCP with any residual losses of the ASX CCP allocated by haircutting settlement payments to participants on a pro-rata basis.

The ASX Recovery Rulebook also contains rules requiring participants and the ASX CCP to replenish the default fund following a default. The ASX Recovery Rules (including replenishment) are published on [ASX's website](#).

The ASX CCPs Recovery Plan sets out ASX's approach to replenishment of the CCPs default resources where those resources are near-exhausted or exhausted in a participant default event (i.e. individual or combined default). The Recovery Plan is supported by ASX's CCPs Recovery Rules.

5

Principle 5: Collateral

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

Key consideration 1

An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity and market risks.

Acceptable collateral:

- ASX's CCPs set strict criteria for the assets they accept as collateral, and ensure that:
 - Collateral is of a high credit standard, to mitigate the risk of a double default event (i.e. the default of a clearing participant and of the collateral issuer), and excessive levels of market volatility.
 - Collateral is liquid, enabling ASX's CCPs to liquidate the collateral in a timely fashion in the event of a default (and without any legal or operational impediments), and mark-to-market the collateral each day, based on good quality market prices prior to any default.
 - Collateral risks are managed through:
 - valuation haircuts;
 - related party collateral restrictions (which prevent clearing participants from posting their own debt or equity securities or equity of companies closely linked to them); and
 - exception limits (where exceptions are granted in respect of related party collateral). Such exceptions are monitored on a regular basis.
- Details of acceptable collateral are set out on ASX's website ([here](#) for ASX Clear and [here](#) for ASX Clear (Futures)).
- ASX's CCPs review the eligibility of securities accepted as collateral on at least an annual basis, and more frequently as market circumstances dictate. This is set out in the ASX Collateral Policy.

Key consideration 2

An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.

ASX's CCPs use stressed market conditions, through-the-cycle approach, to set haircuts, where stress conditions are defined to a 99.9 percentile confidence level over a lookback period of 20 years. There are additional haircuts for collateral denominated in currencies other than either AUD or the currency of the exposure being collateralised (for example NZD).

Haircuts are set and reviewed at least annually.

Collateral is marked-to-market daily (given the nature of the collateral accepted, valuation issues do not arise).

Key consideration 3

In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.

The calculation of collateral haircuts using stressed market conditions (see key consideration 2), means they are stable and not pro-cyclical.

Key consideration 4

An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.

The impact of concentrations on collateral holdings is mitigated by ASX's CCPs only accepting collateral where credit quality is transparent, either through externally verifiable standards (government or state debt) or being a constituent of a major index (S&P/ASX 200 or highly liquid exchange traded funds). The standard for credit quality is an indication that those high quality instruments are liquid and have transparent and appropriate pricing.

ASX Clear monitors non-cash collateral concentration for each clearing participant using a risk-based approach against defined thresholds. Risk mitigation will be communicated with the concerned participant in case the threshold is exceeded.

Key consideration 5

An FMI 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.

ASX's CCPs place a limit on the amount of collateral held by each participant that is denominated in currencies other than the margin requirement currency to limit the extent of reliance on foreign exchange markets to swap this collateral into the currency in which it would be required in a default. ASX's CCPs have the ability to use foreign exchange swaps to ensure that such non-matching currency can be used in a timely manner.

ASX Clear holds all cash (all in AUD) and non-cash collateral accepted by ASX Clear in Australia.

ASX Clear (Futures) holds collateral offshore in New Zealand and the United States. To ensure timely access to collateral in New Zealand, ASX Clear (Futures) has obtained designation as a settlement system in New Zealand and implemented processes to support the repatriation of NZD collateral to Australia. ASX has identified no legal impediments to its processes for realising and repatriating USD collateral to Australia for participants that post USD collateral.

Key consideration 6

An FMI should use a collateral management system that is well designed and operationally flexible.

ASX's CCPs have collateral management systems that manage collateral lodgement against margins. The systems have the ability to allocate collateral in order to optimally manage collateral coverage of exposures. The systems also facilitate valuation of collateral through an automated daily pricing process.

As a matter of policy, ASX's CCPs do not re-hypothecate collateral to avoid the risk of being unable to return the collateral to the participant on request. However, in the event that a clearing participant defaults, ASX Clear (Futures) may re-hypothecate some or all of the securities deposited with it by the defaulting clearing participant for purposes relating to the management of the clearing participant's default.

6

Principle 6: Margin

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

Key consideration 1

A CCP should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio and market it serves.

ASX's CCPs call margins as the main tool to mitigate their current and future credit exposures to participants. Both CCPs operate margin systems that ensure margin levels are commensurate with the risks and particular attributes of each product, portfolio and market.

The choice of margin system is driven by the specific requirements and characteristics of each market/product class. The systems themselves use proven methodologies.

Current exposures:

Current exposures are mitigated by calling VM in arrears to collateralise any realised change in mark-to-market, thus preventing exposures from building up over time.

Future exposures:

Future exposures are mitigated by assessing the potential future change in mark-to-market of the cleared portfolios at a very high level of confidence commensurate with board approved risk coverage which is at least as conservative as required by regulators, over a time horizon considered reasonable to close out positions, were the clearing participant to default under normal market conditions. IM is called against these future exposures.

The margin systems used for IM are as follows:

- ASX Clear:
 - Equity derivatives: Standard Portfolio Analysis of Risk (SPAN)
 - Cash equities: combination of Historical Simulation VaR (HSVaR) and Flat Rates
- ASX Clear (Futures):
 - Futures and futures options: SPAN
 - OTC Interest Rate Derivatives: Filtered Historical Simulation VaR (FHSVaR)

The SPAN methodology involves calculating the change in portfolio value under a range of prescribed potential price and implied volatility scenarios, in which all products are re-valued assuming the price and/or volatility either increases, decreases or stays the same. The size of the price and implied volatility changes are calibrated using historical risk factor returns.

HSVaR is an industry standard methodology that uses realised historical risk factor returns to simulate a distribution of potential future portfolio profits and losses over the risk horizon. The IM amount is then taken as the desired quantile of loss. Portfolio diversification and spread risk are captured implicitly. Filtered HSVaR is a variant of this approach that allows for different weighting to be attributed to different historical observations.

For major products on ASX Clear (Futures), additional margin (liquidity margin add-on) may be charged to participants holding large positions relative to the turnover in the market.

ASX publishes information on margin methodology for [ASX Clear](#) and [ASX Clear \(Futures\)](#) on its website.

Key consideration 2

A CCP should have a reliable source of timely price data for its margin system. A CCP should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.

ASX uses primarily internal price data for IM model calibration and internal price and position data for VM calculations. Internal data is independently reviewed and validated against published price determination rules. ASX may also, on occasion, use third-party data sources for model calibration, as well as an inputs into valuation.

Responses for ASX's CCPs

The daily settlement price determination methodology and procedures ensure that the prices used for margining in both CCPs are appropriate. The following practices are applied to ensure the timeliness and reliability of price data:

- For products traded and cleared on ASX, prices are continuously updated throughout the day via market orders and quotes. Where appropriate, the daily settlement price methodology applies a waterfall logic, that considers factors such as bid/offer, last traded price and performance of the nearest shorter dated contract, to determine the daily settlement price.
- For products not traded but cleared on ASX, third-party price data is used. Third-party data is approved for use in models as part of the model approval process which includes an assessment of data quality and reliability.
- Both internally and externally generated price data is subject to daily validation and review processes as well as being included in daily model performance monitoring.

Key consideration 3

A CCP should adopt initial margin models and parameters that are risk based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. For a CCP that calculates margin at the portfolio level, this requirement applies to each portfolio's distribution of future exposure. For a CCP that calculates margin at more granular levels, such as at the sub-portfolio level or by product, the requirement must be met for the corresponding distributions of future exposure. The model should (a) use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the CCP (including in stressed market conditions), (b) have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products and, (c) to the extent practicable and prudent, limit the need for destabilising, procyclical changes.

ASX's CCPs ensure that margin requirements are sufficient to cover their potential future exposure to clearing participants in the interval between the last margin collection and the close out of positions following a participant default.

The margin models assume a conservative time horizon for hedging and close out between two and seven days, depending on product type.

The table below summarises the margin methodology used for each product class, including confidence intervals (coverage levels) and assumed close out periods. Further detail can be found in the response to key consideration 1.

Product Group	Margin Methodology	Confidence Intervals	Assumed Liquidation Horizon (days)
Equity Derivatives	SPAN	99.5	3
Cash Equities	VaR	99.7	2
Exchange Traded Derivatives	SPAN	99.5	2 (rates, equities) 3 (other products)
OTC Interest Rate Derivatives	FHSVaR	99.5	5 (house accounts) 7 (client accounts)

Procyclicality in Exchange Traded Derivative and Exchange Traded Option margins is addressed by including analytical floors based on stressed periods for all products. For OTC Interest Rate Derivative margins, the long look back period that incorporates the Global Financial Crisis stressed rates market acts as a floor. For Cash Equity margins, a scaling factor is applied to current margin levels to ensure they don't fall below the margin levels that would apply if current market conditions deteriorated to COVID-19-like conditions again.

In addition, ASX has developed two procyclicality measures, with associated RAG (Red/Amber/Green) statuses: a backward-looking metric that assesses the appropriateness of current floor levels, and a forward-looking metric that assesses the appropriateness of margin increases. Any changes to current margin levels or margin floor levels are assessed against these procyclicality metrics on a quarterly basis.

If the current floor levels are lower than the amber threshold they are reviewed, and if the margin model suggests an increase in margin rates that would breach the amber threshold, the increase will be re-considered (e.g. partial increase).

Key consideration 4

A CCP should mark participant positions to market and collect variation margin at least daily to limit the build-up of current exposures. A CCP should have the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.

ASX's CCPs mark participant positions to market and collect VM at least daily to limit the build-up of current exposures. ASX's CCPs also have the authority and operational capacity to make intraday margin calls and collections both scheduled and unscheduled, to participants:

- ASX's CCPs' Operating Rules and Procedures give the ASX CCPs authority to collect margins on an intraday basis in order to limit the build-up of current exposures.
- Each ASX CCP has slightly different arrangements for the calling and collecting of margins.

ASX Clear:

- Cash equities transaction (risk and mark-to-market) margins are calculated based on end-of-day prices and settled by 10.30am the following business day. Ad hoc intraday margin calls may be made when market conditions are volatile or certain market events occur, although historically these have been infrequent.
- Derivatives transaction (Exchange Traded Options) margins are calculated based on end-of-day prices and settled at 10.30am the following business day. If during the day the S&P/ASX 200 index moves by greater than 1% in either direction, then an ad hoc intraday margin call will be made and clearing participants will be called for margin, where the associated margin call/shortfall is greater than a defined threshold.
- For all scheduled and ad hoc intraday margin calls, the impacted clearing participants are notified via email and given two hours to settle their margin obligation, unless otherwise advised.

ASX Clear (Futures):

- Futures (Futures and Options over Futures) margins are calculated based on end-of-day prices and shortfall is collected at 11.00am in the following business day.
- There are scheduled intraday margin calls at 7.30am, 11.10am and 1.30pm and clearing participants will be called for margin where their portfolio has been eroded by a certain percentage and the associated margin call/shortfall is greater than a defined threshold. The previous end-of-day and 7.30am call are settled in a single net payment.
- Overnight margin calls are made at 2.00am for eligible clearing participants (refer to [ASX's website](#) for eligible clearing participants and the process).
- For all scheduled (except 7.30am as end-of-day settlement is included) and ad hoc intraday margin calls, the impacted clearing participants are notified via email and given one hour to settle their margin obligation, unless otherwise advised.

Key consideration 5

In calculating margin requirements, a CCP may allow offsets or reductions in required margin across products that it clears or between products that it and another CCP clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer cross-margining, they must have appropriate safeguards and harmonised overall risk management systems.

The margining methodology used by ASX's CCPs allows for margin requirements to be offset between products, recognising that the risk of the combined position may be less than the sum of the outright risks. The size of the margin reduction is related to the degree of correlation observed historically between the two products. The risk reduction is only allowed within an ASX CCP and not across ASX CCPs.

ASX Clear (Futures) Exchange Traded Derivatives and ASX Clear Exchange Traded Options

The SPAN methodology allows offsets in the form of inter-commodity spread concessions. The eligibility and magnitude of offsets depend on economic fundamentals (for example no benefits are recognised between different asset classes) and the level of correlation observed between the pair in a one year period for offset stability. In addition, ASX uses sensitivity analysis to verify the reliability of correlations between products used in calculating inter-commodity spread concessions.

ASX Clear Cash Market

ASX Clear applies HSVaR methodology at a portfolio (clearing participant) level for its cash market securities. The use of historical simulation over a five year period establishes the significance and reliability of these correlations by taking the worst movements at a high confidence interval.

ASX Clear (Futures) OTC Market

ASX Clear (Futures) applies FHSVAr methodology in its margining approach for the OTC interest market. This inherently provides margin offsets based on historical co-movement of products within the portfolio. The use of historical simulation over an extended period (currently back to the Global Financial Crisis period) establishes the significance and reliability of these correlations taking the worst correlated movements and the set confidence interval to apply margins.

Responses for ASX's CCPs

ASX Clear (Futures) also offers OTC participants the ability to choose to cross-margin specific directly cleared interest rate futures by allocating these positions to their OTC derivatives portfolio, with the consideration that risk factors are closely related and eligibility of offset is economically justifiable.

Key consideration 6

A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting – and at least monthly, and more frequent where appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model's coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.

ASX's CCPs monitor overall margin coverage on a regular basis.

Daily back testing of margin coverage is performed for both CCPs and is critical to ensuring margin coverage is appropriate for market conditions.

All portfolios are subject to output back testing which monitors the portfolio profit and loss over the designated risk horizon against the margins held and determines the number of margin breaches over standard look-back windows of three months and one year.

SPAN price parameters and Cash Market Margin flat rates are also subject to input back testing which monitors the risk factor moves over the designated risk horizon against the relevant parameters.

Where back testing indicates that a model is not performing in line with expectations, adjustments may be made to models including the use of scalars and/or overrides. Where such interventions are required, the level of adjustment will be informed by regulatory and internal back testing requirements, as well as the standard error term associated with a model's calibration.

If a margin model is persistently underperforming according to its back testing, the model will be investigated to determine whether the issue lies with the margin model, the data used in the margin model or the back testing itself. If, after investigation of the causes of breaches, the margins are deemed insufficient, CCPs may increase margins by a factor, chosen such that back testing performance is satisfactory.

Sensitivity analysis is performed monthly on a range of risk parameter inputs into CCPs margin models, including lookback periods, confidence intervals, inclusion of stressed periods, decay factors, volatility floors, changes to margin period of risk length and use of relative versus additive returns.

Key consideration 7

A CCP should regularly review and validate its margin system.

Margin model independent validation processes are in place over and above the ongoing back testing and sensitivity analysis of margin model inputs and outputs.

Model validation also includes the independent evaluation of model assumptions and conceptual soundness commensurate with the risks and particular attributes of the product and the market in which the model operates.

There is a Model Risk Policy and Framework which outlines how margin systems are validated and tested. The frequency of margin system validation/revalidation is based on the risk rating of each margin model and tool. Full revalidation of higher risk margin models occurs every three years, while lower risk models and tools are revalidated less frequently. If a margin model or tool has been materially changed or the market dynamics have materially changed, an earlier review may be required depending on the risk rating of the model/tool. The conceptual soundness of models is reviewed annually. The model validation framework is also subject to annual review.

Margin model parameters are reviewed daily and formally on a quarterly or annual basis (depending on the model parameter).

7

Principle 7: Liquidity risk

An FMI should effectively measure, monitor and manage its liquidity risk. An FMI 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 FMI in extreme but plausible market conditions.

Key consideration 1

An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers and other entities.

ASX Clearing Corporation (ASXCC) manages the investment of clearing participant cash margins and default funds for both ASX CCPs.

ASX's CCPs' liquidity risk management framework is set out in the ASX Liquidity Risk Policy and the ASXCC Investment Mandate which is implemented by using appropriate systems, models, processes and procedures. The framework outlines the Board and Senior Management accountability and Three Lines of Defence model.

Key features of ASX's approach to liquidity management are:

- 100% of the capital for both CCPs (from ASX and from participants) is pre-funded and invested in highly liquid assets.
- Majority of margin for ASX Clear (Futures) is received as cash.
- Limits on total cash and non-cash collateral that can be posted by each clearing participant in currencies other than the margin requirement currencies.
- All securities invested in by ASXCC (for both CCPs) are eligible for a repurchase agreement (repo) at the RBA.
- Direct Exchange Settlement Account (ESA) with the RBA and a direct account in the Exchange Settlement Account System (ESAS) with the Reserve Bank of New Zealand (RBNZ) for the repo of investments directly with the RBA and the RBNZ.
- ASX Clear (Futures) through ASXCC also has access to EUR, GBP, JPY and USD intraday liquidity with two commercial banks. This allows ASX to repay clearing participants their non-matching cash collateral whilst maturing funds come in and manages the cashflow risk driven by currencies that have cut-off times beyond ASX operational supported hours.
- ASX Clear (Futures)' United States Treasury Bills posted as collateral and ASXCC's investment securities denominated in EUR, JPY, GBP and USD are held in Clearstream, a CSD.
- ASX Clear also has recourse to a committed liquidity facility from three major Australian banks.
- ASX Clear's rule book gives the CCP the contractual right to use Offsetting Transaction Arrangements (OTAs) with non-defaulting participants who are counterparties to outstanding sale transactions with a defaulting participant. OTAs are a form of contingent liquidity from participants available at the option of the CCP and which are funded by the sale proceeds due to be received by that participant from the defaulting participant.

ASX's CCPs provide participants with information to help them manage their liquidity needs and risks, which in turn protects the CCPs to the extent this enhances participants' own liquidity risk management.

ASX Clear also provides monthly disclosures on participants' cash market contingent liquidity exposures including the potential use of OTAs.

Key consideration 2

An FMI 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.

ASX's CCPs' daily settlement and funding flows are identified, measured and monitored on a timely basis, including on an intraday basis through a number of systems.

Daily reports of key risk indicators related to liquidity demands are reviewed to ensure there are no issues. Cash margin and collateral holding information feeds into ASX's Treasury Management System every morning (or intraday if required). This allows

Responses for ASX's CCPs

the ASX CCPs' Treasury to view this information, understand the usage of intraday liquidity and enter trades required to manage daily cash-flows into ASX's Treasury Management System. Clearing and Settlement Operations then use daily settlement reports produced by the Treasury Management System to generate settlement instructions in Austraclear, which results in cash flow movements to be monitored in RITS.

Key consideration 4

A CCP should maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions. In addition, a CCP that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions.

As set-out in the Supplementary Interpretation of the Financial Stability Standards for Central Counterparties (issued 27 October 2014) the RBA considers both ASX CCPs to be of systemic importance in multiple jurisdictions.

Consistent with this Supplementary Interpretation, ASX's Liquidity Risk Policy requires that each CCP should maintain, with a high degree of confidence, sufficient liquidity to manage the default of the two largest participants and their affiliates and meet reasonably foreseeable operational cash flows.

ASX's CCPs primary liquidity requirement is the Core Liquidity Requirement (CLR). The CLR is calculated specific to each cash collateral currency (currency specific) and is the sum of the currency specific Default Liquidity Requirement (DLR) for each CCP and the currency specific Ordinary Liquidity Requirement (OLR) across both CCPs.

The currency specific DLR for ASX Clear is applicable for AUD only and is equal to the sum of the CCP's default fund and the aggregate margin requirements of the two largest participants.

ASX Clear (Futures) currency specific DLR is calculated for AUD and NZD currencies and is equal to the sum of the AUD and NZD currency specific liquid stress test results and the AUD and NZD aggregate margin requirements respectively of the two participants and their affiliates that result in the largest combined payment obligation to the CCP.

The currency specific OLR is intended to cover day to day liquidity requirements in each currency and is calculated by multiplying the ASXCC investment portfolio (less the DLR) held in that currency with the OLR rate specific to that currency – the OLR reflects the maximum one-day non-default outflows in the previous 12 months (subject to a floor).

ASX's CCPs also have an Additional Liquidity Requirement (ALR) for AUD and NZD currencies which is designed to reflect the potential for unexpected non-default related liquidity needs. The AUD and NZD ALRs are calculated by multiplying the ASXCC investment portfolio (less the DLR) held in AUD and NZD with the AUD and NZD ALR rates respectively. The ALR reflects the maximum historical one-day non-default outflow.

ASXCC's Investment Mandate establishes a clear definition of liquid assets that can be used to meet the CCPs' CLR and ALR (see key consideration 5).

ASXCC's Investment Mandate limits for each participant the proportion of IM requirements that can be met with collateral in currencies other than the margin requirement currency.

ASX's CCPs measure whether it has enough currency specific liquid assets to meet the combined value of the currency specific CLR and ALR on a daily basis.

ASX's CCPs apply haircuts to the value of ASXCC's investments when assessing the adequacy of liquid resources against the currency specific CLR and ALR. The haircuts are based on worst historical price movements and hypothetical forward looking scenarios.

ASX Clear has implemented a defined target minimum cash market liquidity buffer to cover cash market liquidity needs (before the potential use of OTAs) in the event of the default of the two participants and their affiliates that would generate the largest aggregate payment obligation for derivatives.

The ASX Clear and ASX Settlement Operating Rules allow for the creation of OTAs with non-defaulting clearing participants in the event that a clearing participant fails to meet a payment obligation in relation to a cash equity transaction. This arrangement settles obligations and entitlements under CCP Batch Instructions which would otherwise fail due to outstanding payment obligations. OTAs replace the previous settlement rescheduling arrangements for those failed CCP Batch Instructions and facilitate the settlement of CCP Batch Instructions on the scheduled settlement date.

Key consideration 5

For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI 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.

ASXCC is the controlling entity for the treasury investments for both ASX Clear and ASX Clear (Futures). ASXCC's AUD denominated investments are settled across ASXCC's ESA held with the RBA. NZD denominated investments are settled across the ESA System with the RBNZ.

ASXCC invests funds in accordance with its Investment Mandate; this covers both cash margin collected and prefunded default funds.

The primary driver of ASXCC's investment objective is the need to ensure timely and certain access to funds at all times, including in the event of a clearing participant default.

ASXCC's Investment Mandate and ASX's CCP Liquidity Stress Testing and Liquidity Requirement Standard require the CCPs' Treasury to meet the currency specific CLR with high quality liquid assets - cash held in accounts at the RBA, the RBNZ or creditworthy commercial banks that is available for use within two hours, securities issued by the Australian Government or semi-governments or the New Zealand Government that are eligible for repurchase transactions with the RBA and the RBNZ, and securities issued by the German, Japanese, United Kingdom and United States Governments (held as collateral for repo transactions). See Principle 16 for further information.

All other AUD and NZD liquid assets held in ASXCC's portfolio, such as bank bills negotiable certificates and Authorised Deposit-taking Institution issued securities (all eligible for repurchase transactions with the RBA and the RBNZ) are eligible to meet the AUD and NZD currency specific ALR.

Key consideration 6

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

ASX's CCPs do not rely on supplemental liquid resources, as they meet their minimum liquidity requirements through their qualifying liquid resources. All AUD denominated securities held are eligible for repo at the RBA which acts as a liquidity back-stop.

ASX Clear (Futures) can access, via ASXCC, EUR, GBP, JPY and USD liquidity under intraday liquidity facilities with two commercial banks.

Key consideration 7

An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.

ASX's CCPs have access to AUD and NZD liquidity on a secured basis through standing facilities (against eligible collateral) with the RBA and the RBNZ respectively.

ASX Clear also has access to several committed liquidity facilities to meet its minimum default liquidity resource requirements. ASX Clear periodically conducts due diligence to ensure that the committed liquidity facility from the liquidity providers could be drawn upon if needed.

ASX Clear's cash market liquidity includes contingent funding from participants' through OTAs.

ASX's CCPs periodically test their procedures for accessing ASXCC's liquid resources.

Key consideration 8

An FMI with access to central bank accounts, payment services or securities services should use these services, where practical, to enhance its management of liquidity risk.

ASX's CCPs use the following services to enhance their liquidity risk management:

- Austraclear: clearing participants settle routine margin payments in respect of ASX derivatives positions (for both ASX Clear and ASX Clear (Futures)) and novated unsettled cash equity market obligations (for ASX Clear only) via cash transfers in Austraclear, which settle in real time via RITS.
- RBA ESA: AUD denominated payments transactions reflecting margin-related funds movements and treasury investments for both CCPs are settled using ASXCC's ESA.
- RBNZ ESAS: NZD denominated settlement obligations at ASX Clear (Futures) are settled using ASXCC's ESAS account.

Key consideration 9

An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision-makers at the FMI and to use these results to evaluate the adequacy of, and adjust, its liquidity risk management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers and linked FMIs) and, where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.

ASX's CCPs assess the adequacy of their liquidity arrangements in the event of a joint default of two clearing participants having the largest aggregate exposure, using the ASX Liquidity Stress Testing models (specific to each CCP) on a daily basis.

To estimate the liquidity that the CCPs need to hold to manage clearing participant default events, the CCPs stress test their clearing participants' portfolios by considering a wide range of potential adverse price and implied volatility shocks (stress scenarios) that model extreme but plausible stressed market conditions. The worst cash outflow between the time of the last settled margin call (pre default) and the time that the entire defaulted portfolio(s) have been closed out informs the liquidity requirement.

The worst case Liquidity Stress Testing value i.e. the largest potential Liquidity Stress Testing requirement for the two largest clearing participants and their affiliates across all scenarios (as per consideration 4 above), is taken as the DLR for ASX Clear (Futures) or used to monitor the adequacy of liquidity resources for ASX Clear.

ASX's CCPs supplement their default liquidity stress testing with four currency specific liquidity specific stress test scenarios. These scenarios consider stresses to currency specific cash margin outflows across the CCPs. The results from the currency specific liquidity specific stress test scenarios assess the adequacy of CCPs currency specific CLR and ALR and the actual liquidity of the ASXCC investment portfolio.

The results of liquidity stress testing are reported to ASX's senior management and the RBA daily. The results of currency specific stress tests are reported to ASX's Treasury and senior management daily. The results of liquidity stress testing are reported to the CS Boards quarterly.

In line with the Model Risk Framework, user testing and independent validation is performed on the ASX Liquidity Stress Testing models, including models used to calibrate input parameters.

Key consideration 10

An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI'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.

The ASX Clear and ASX Settlement Operating Rules allow the creation of OTAs with non-defaulting clearing participants in the event that a clearing participant fails to meet a payment obligation in relation to a cash equity transaction. This arrangement settles obligations and entitlements under CCP Batch Instructions which would otherwise fail due to outstanding payment obligations. OTAs facilitate the settlement of CCP Batch Instructions on the scheduled settlement date.

ASX's CCPs, through the ASX Recovery Rulebook, have additional tools to enable them to address liquidity shortfalls they may face from participant default (Recovery Assessments and complete termination and, in the case of ASX Clear (Futures), payment reduction powers) and as well as to replenish their financial resources following a participant default.

8

Principle 8: Settlement finality

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

Key consideration 1

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

Settlement finality is achieved at the point defined in the Operating Rules of each of ASX's CCPs, as published on ASX's website.

For ASX Clear and ASX Clear (Futures), finality is established once the CCP's obligations are settled through the linked settlement facility. For cash-settled products, ASX Clear and ASX Clear (Futures) align the finality of obligations as CCP with the point of settlement finality in the linked securities settlement facilities (ASX Settlement or Austraclear).

The legal framework for ASX's clearing and settlement facilities provide a clear and enforceable basis for the discharge of payments, transfer instructions and other obligations. Each facility's Operating Rules specify the point at which obligations are taken to be settled:

- **ASX Clear Operating Rules:** Sections 4 and 12 provide for the discharge of net settlement and payment obligations for novated cash market and derivatives transactions, and the daily settlement of novated derivatives transactions;
- **ASX Clear (Futures):** Futures Operating Rules 44 for the daily settlement of novated futures contracts, and 103 for irrevocability of all payments and deliveries, and; OTC Operating Rules 5 for the payment of OTC Daily VM, and 8 for the payments by OTC participants and the discharge of net obligations.
- **ASX Recovery Rules** (covering both CCPs): Rule 8.3 provides that a net (or reduced) payment made by ASX's CCPs in accordance with the ASX Recovery Rules discharges their obligations.

Key consideration 2

An FMI 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 system should consider adopting RTGS or multiple-batch processing during the settlement day.

ASX Clear and ASX Clear (Futures)

- **Cash settlements:** AUD cash settlements are processed in real time through CHES, Austraclear and RITS, with obligations deemed final once credited or debited to the relevant ESA. NZD cash obligations at ASX Clear (Futures) are similarly settled in real time via the RBNZ. This ensures finality is achieved on the value date without deferral.
- **Collateral and margin:** Both CCPs accept collateral in AUD-denominated securities, which are transferred or reserved in a subposition in real time via Austraclear or ASX Settlement. These transfers or reservations become final when reflected in the relevant settlement facility's records. Cash margin is only released once obligations are confirmed as matched and settled.
- **Securities settlement:** For ASX Clear, novated equity trades are settled through ASX Settlement on a DvP Model 3 basis. Obligations are settled in the daily multilateral batch with the interbank cash leg simultaneously settled in RITS. Where settlement fails due to a securities or funds shortfall, back-out or injection processes are employed to ensure that settlement is completed no later than the end of the value date.

ASX's CCPs provide both intraday or real-time final settlement capabilities:

- **ASX Clear:** Novated equity trades are settled in ASX Settlement on a DvP Model 3 basis, with completion of the net batch occurring intraday. The interbank cash leg is settled in RITS simultaneously with the securities leg, ensuring finality on the value date.
- **ASX Clear (Futures):** AUD cash margin and VM payments are settled in real time via Austraclear and RITS. Obligations are final once debited or credited to ESAs. USD margin payments are all processed with commercial banks through the Fedwire Funds Service, an RTGS system.

Key consideration 3

An FMI should clearly define the point after which unsettled payments, transfer instructions or other obligations may not be revoked by a participant.

The ASX CCPs' Operating Rules define the point after which payment or transfer instructions cannot be revoked.

ASX Clear

- Cash equity trades may be removed from novation at the request of the buyer and settler prior to the calculation of participants' net settlement obligations at the end of the transaction date (ASX Clear Operating Rules Section 12).
- Extensions to cash equity novation cut-off times are permitted on an exceptional basis and must be justified by the circumstances of the individual case (ASX Clear Operating Rule 1.20)
- Exchange Traded Option and OTC Equity Option transactions cannot be revoked by participants once the instruction has been submitted to ASX Clear.

ASX Clear (Futures)

- Derivative transaction payment or transfer instructions cannot be revoked by participants once submitted to ASX Clear (Futures).
- Extensions to derivative clearing cut-off times are permitted on an exceptional basis and must be justified by the circumstances of the individual case (ASX Clear (Futures) Rule 22).

9

Principle 9: Money settlements

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

Key consideration 1

An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.

ASX Clear: All ASX Clear money settlements occur in AUD. The vast majority of AUD settlements are conducted in central bank money using ESA accounts in RITS for ASX Clear transactions settled in CHES and Austraclear. There are two exceptions to this:

- De minimis amounts which are injected into the CHES batch settlements for rounding purposes, which occur from an account held at a major highly rated Australian bank.
- In the event of a participant default, the same account would be used to contribute funds to ensure settlement of positions relating to the defaulting participant. Work is underway to assess the feasibility of removing this dependency and using ASX's ESA held at the RBA if required.

ASX Clear (Futures): All AUD settlements are conducted in central bank money using ESA accounts in RITS for ASX Clear (Futures) transactions settled in CHES and Austraclear.

ESA accounts in RITS are held in the name of ASXCC Limited as Trustee for ASXCC Trust for ASX Clear (Futures). This structure ensures that all AUD obligations of ASX's CCP are settled in central bank money at the RBA, eliminating commercial bank credit risk.

NZD settlements are also conducted in central bank money via ASXCC's ESA in New Zealand.

There are two circumstances where money settlements do not occur in central bank money for practical reasons (due to ASX's inability to hold a central bank account in the relevant jurisdiction):

- Settlement of non-AUD cash collateral occurs into an account held at the same major highly rated Australian bank used by ASX Clear. These monies are invested by ASX Treasury (directly or via repo) into highly rated government securities issued in the jurisdictions in question.
- Settlement of 2.00am margin calls when Australian markets are closed – five highly rated North American banks are used to settle these calls. Multiple banks are used to diversify exposure and ensure that ASX does not custody funds relating to settlement participant activity from the same bank.

Key consideration 2

If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.

ASX Clear: Central bank money is used, except as outlined in key consideration 1.

ASX Clear (Futures): Central bank money is used for AUD and NZD. For other currencies, practical limitations necessitate the use of commercial bank monies as outlined in key consideration 1.

Key consideration 3

If an FMI settles in commercial bank money, it should monitor, manage and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, an FMI 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. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.

ASX Clear – Use of commercial bank monies is de minimis and ASX Clear is assessing the feasibility of removing reliance on possible use of commercial bank money for default management purposes.

For ASX Clear (Futures): USD payments are settled through commercial bank participants in the Fedwire Funds Service.

The ASX CCP Settlement Risk Policy includes a list of approved commercial banks for settlement in each currency. A commercial settlement bank must meet certain criteria to act as money settlement agent for ASX Clear (Futures) for foreign currency payments other than NZD. This includes a minimum credit rating, being an approved counterparty and being within counterparty exposure levels as set out by the ASXCC Investment Mandate.

To reduce the liquidity risk from the timing of USD collateral payments, cash collateral collected from the 2.00am margin process is held across United States banks until it is returned following the settlement of the subsequent first AUD intraday margin run. The United States banks holding cash collateral are all highly rated (short term rating of A1, long term rating of A minimum) to reduce the counterparty risk.

Key consideration 4

If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.

Not applicable to ASX Clear as settlement occurs on a DvP basis.

Not applicable for ASX Clear (Futures) dematerialised contracts. For physical delivery contracts, where there is any impediment to delivery, the contract payment settles, thereby reducing the credit and liquidity risks.

Key consideration 5

An FMI'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 FMI and its participants to manage credit and liquidity risks.

ASX Clear and ASX Clear (Futures):

Terms and Conditions set out the manner in which the commercial bank accounts operate.

ASX's CCPs do not assume responsibility for clearing participants' credit and liquidity exposure arising from their own banking arrangements. These remain the responsibility of individual clearing participants who are best placed to monitor and manage their own commercial bank risks.

10 Principle 10: Physical deliveries

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

Key consideration 1

An FMI's rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.

ASX Clear does not clear any contracts with physical delivery obligations.

ASX Clear (Futures) only accepts physical delivery for derivative contracts cleared through the CCP for:

- a. grain (barley and wheat);
- b. gas; and
- c. environmental futures.

Storage and delivery of physical grain is facilitated using third party Bulk Handlers. ASX maintains and annually renews its contractual agreements with third party Bulk Handlers.

ASX Clear (Futures) does not take or make physical delivery for gas under ASX's Wallumbilla Natural Gas Futures Contract. It is exchanged bilaterally between clients on the Australian Energy Market Operator Gas Supply Hub.

For ASX's environmental futures contracts, ASX Clear (Futures) uses three registries who manage the certificates/units (as applicable) that the environmental futures underlying certificates/units are recorded in. ASX Clear (Futures) receives the certificates/units from the selling clearing participant and transfers the certificates/units to ASX who then transfers the units to the buying clearing participant. At the same time ASX receives funds from the buying clearing participant and pays to the selling clearing participant to facilitate the transfer of certificates/units.

The delivery obligations of ASX Clear (Futures) are set out in the ASX Clear (Futures) Operating Rules, as published on ASX's website.

- Grain – ASX Clear (Futures) Operating Rule 63 and Schedule 14
- Gas – ASX Clear (Futures) Operating Rule 66
- Environmental futures – ASX Clear (Futures) Operating Rule 67

At its discretion, ASX Clear (Futures) may direct a clearing participant with delivery obligations to make delivery to a nominated clearing participant holding an opposite position and to receive the settlement amount accordingly; or make or take delivery itself and pay or receive the settlement amounts accordingly.

In certain circumstances contracts can be cash settled, for example where ASX Clear (Futures) is required to make delivery but delivery is not received or is not possible.

In respect of grain contracts, delivery is effected by book entry by ASX Clear (Futures) to reduce or increase, as applicable, the amount of the interest in the commodity held by ASX Clear (Futures) for a seller or a buyer.

For gas and environmental futures - participants are required to test their internal processes/procedures relating to the delivery mechanism for the product, and attest that they are aware of their obligations and can meet the delivery requirements for that new product.

Delivery Guides are published on ASX's website:

- a. grain - [ASX grain futures](#)
- b. gas - [Wallumbilla Natural Gas Calendar Month Futures](#) (and additional general information is published here: [ASX Wallumbilla Natural Gas Futures](#))
- c. environmental futures - [Delivery guide for ASX Environmental Futures](#) (and additional general information is published here: [ASX Environmental Futures](#))

Key information for clients of ASX 24 trading participants includes:

- ASX 24 Operating Rules Schedules. The Futures contract specifications provide details of FMI obligations regarding physical delivery.
- ASX 24 Operating Rules Procedure 3801 contains information relating to the minimum terms for an Environmental Futures Client Agreement and Grain Futures Client Agreement.
- Information about the ASX commodity markets is available on ASX's website ([ASX 24 commodity codes](#) and [ASX 24 Operating Rules Schedule](#)).

Key consideration 2

An FMI should identify, monitor and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.

ASX Clear (Futures) identifies, monitors, and manages risks and costs involved when physical goods are delivered as part of a financial contract. Key risks identified include potential operational errors during the delivery process, incorrect billing or a buyer not being able to pay. These risks are tracked in a ASX's GRC application and reviewed regularly. To manage the risks, ASX uses contracts with storage providers, checks that grain transfers match records, verifies invoices before paying and requires two people to approve key actions. ASX also makes sure that any fees, such as storage or transfer costs, are passed on fairly to the right parties.

11

Principle 11: Central securities depositories

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

Not applicable for ASX's CCPs.

12 Principle 12: Exchange-of-value settlement systems

If an FMI 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.

Key consideration 1

An FMI 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 FMI settles on a gross or net basis and when finality occurs.

ASX's CCPs use three facilities for settlement – ASX Clear (Futures), ASX Settlement and Austraclear.

- ASX Clear relies on ASX Settlement (CHESS) for securities transfers and the RBA's RITS for irrevocable cash settlement across ESAs.
- The majority of ASX Clear (Futures) trades are cash settled and through Austraclear. A small number of ASX Clear (Futures) trades (for physical delivery) settle through itself.

The Operating Rules of ASX Clear (Futures), ASX Settlement and Austraclear embed finality provisions that ensure settlement of linked obligations only occurs on a DvP basis. Neither ASX Settlement nor Austraclear are counterparties to transactions that settle through the settlement facilities and therefore are not exposed to principal risk. For further information, refer to:

- ASX Clear (Futures) Operating Rules 44 and 103.
- ASX Settlement Operating Rules Section 10.
- Austraclear Regulations 14, 15 and 16.

For physical deliveries in ASX Clear (Futures), principal risk is protected against because the physical commodity is transferred by the seller to the appropriate ASX account at the registry (environmental futures) or bulk handler (grains) ahead of the last trading day, ensuring ASX has the physical commodity. ASX then receives funds from the buyer on the settlement day. Once funds have been received ASX will pay the funds to the seller and transfer the physical commodity to the buying participant.

13 Principle 13: Participant-default rules and procedures

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

Key consideration 1

An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.

The Operating Rules of ASX's CCPs set out events constituting a participant default (both financial and operational). The powers to suspend and/or terminate a participant in the event of a default are also set out in Guidance Note 5 Suspension and Termination of Participants under the relevant CCP rulebook.

The Participant Issue Response Group (PIRG) is a management forum for the exchange of information and coordination of executive action with respect to incidents impacting a clearing participant's ability to comply with the Operating Rules. The Participant Issue Response Group also monitors and manages defaults of non clearing participants. In the event of a potential clearing participant default, the Participant Issue Response Group would escalate the matter to the Default Management Committee. If the issue identified is a potential act of default then this matter would bypass the Participant Issue Response Group and be immediately actioned by the Default Management Committee. The Default Management Committee is an advisory committee responsible for advising the Managing Director and CEO on the declaration and management of clearing participant default events in a timely and effective way.

Following a declaration of default, the CCPs may, among other things:

- Suspend the defaulting participant's authority to clear some or all market/OTC transactions. If all clearing activities are suspended, there will be no further payments or collateral movements to the participant. This enables the CCP to 'crystallise' the defaulting participant's position and establishes the basis for the close-out of exposures to the defaulting participant.
- For a defaulting OTC participant on ASX Clear (Futures), convene the Default Management Group (comprising representatives from OTC clearing participants) to provide guidance and advice to the Default Management Committee on the best way to hedge and auction the defaulting participant's portfolio.
- Liaise with one of its default brokers (authorised to act on behalf of the CCP in the event of a default) to close out or hedge the defaulting participant's outstanding obligations to the CCP and/or seek to auction the defaulting participant's portfolio.

The rules for both ASX CCPs contemplate that they may:

- Apply the default fund assets to satisfy their obligations irrespective of whether they have finally determined their obligations in respect of a clearing participant in default.
- Borrow or make other financial arrangements to discharge their obligations in a timely manner.

ASX's CCPs would meet obligations arising from a participant default using collateral (cash or eligible securities), excess cash and default fund contributions lodged by that participant. If the defaulting participant's assets were insufficient, the relevant CCP could draw upon their default fund. ASX Clear's \$250 million default fund is fully funded by the CCP's equity. ASX Clear (Futures) \$650 million default fund is fully prefunded with contributions from both ASX and clearing participants. The default fund comprises \$450 million in ASX capital (across three tranches), and \$200 million in participant contributions (across two tranches).

If a CCP's prefunded resources were exhausted, each CCP has the power to call Recovery Assessments from participants.

- Recovery Assessments at ASX Clear are capped at \$300 million, and at ASX Clear (Futures) are currently capped at \$200 million (for a single default) and \$600 million (if multiple participants default). The allocation of Recovery Assessments across individual participants is proportional to the risk associated with positions held by participants prior to the default.
- Beyond this, ASX Clear (Futures) can reduce (haircut) a range of its outgoing payment obligations to participants to allocate remaining financial exposures arising from the default. The allocation of payment haircuts is linked to the positions held by participants.
- As a last resort, ASX's CCPs have the power in recovery to allocate losses by reducing settlement payments in the context of complete termination of all open contracts.

The ASX Recovery Rules impose obligations on ASX's CCPs and non-defaulting participants to replenish the default funds if these are partially utilised or exhausted following a participant default. At the end of a 22-business-day cooling-off period, the default funds would be fully replenished to up to \$150 million (ASX Clear) and \$400 million (ASX Clear (Futures)). Participants'

Responses for ASX's CCPs

contributions are capped at half of the amount needed to replenish ASX's CCPs' default funds to those levels. Individual participants' replenishment contributions would be determined in proportion to the risk associated with positions held by the participant prior to the default. A participant's replenishment contribution is independent of its Recovery Assessment. If further increases to the default fund are required following full replenishment, these would be met 50/50 by the ASX CCPs and participant contributions as part of the quarterly recalibration of the default fund. Participant contributions arising from this quarterly recalibration would also be broadly proportional to the risk associated with positions held by that participant.

Key consideration 2

An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.

ASX's CCP Operating Rules require participants to inform ASX immediately if they become aware they are unable to comply with the Operating Rules including when the participant is at risk of being in a default event. ASX continuously monitor participants' compliance with obligations outlined in its Operating Rules and have arrangements in place (refer to key consideration 1) to expeditiously escalate any participant issues to the appropriate governance group (Default Management Committee).

ASX maintains a comprehensive Default Management Framework allowing it to implement its default rules and procedures to deal with an event of default in a timely manner. The Framework includes, but not limited to, the Default Management Policy and Standard, the Recovery Plans, playbooks, communications plans, and testing plans and procedures. The Framework is reviewed regularly and presented to the internal governance working group (Default Management and Recovery Working Group) with the Policy, Standard and Recovery Plan approved by the CS Board on an annual basis.

ASX's approach and method for identifying and managing default events are outlined in the Framework. The Framework delineates roles and responsibilities for addressing a default. The declaration of default decision is not automatic and takes into account the totality of the circumstances.

In an event of default of a participant, ASX has a range of tools available to manage the default including, but not limited to, suspension of the participant's membership, the transfer of customer positions to a non-defaulting participant, use of default brokers to close or hedge out the market risk arising from the open positions, and ability to auction the defaulted portfolio to a third party. The range of default management procedures available are outlined in ASX's internal procedures and default strategy documents.

Default management fire drills are conducted for the CCPs at least annually with involvement from relevant stakeholders (including regulators, boards, clearing participants, liquidity providers and end-user clients). The fire drills test communication channels that would be used in the event of a default. Refer to key consideration 3 for further details.

Key consideration 3

An FMI should publicly disclose key aspects of its default rules and procedures.

Default management information is published on [ASX's website](#), including:

- Frequently asked for clients of a Defaulting ASX Clear Participant
- ASX Clear Participant Default – Overview
- Fact Sheet for Insolvency Practitioners
- ASX Clear (Futures) Participant Default Overview

The Rules that cover the default and recovery processes of each of the CCPs are published on the ASX website:

- ASX Clear Operating Rules and Procedures – Section 15 – Default
- ASX Clear (Futures) Operating Rules and Procedures – Part 7 – Procedures on Default
- ASX Clear (Futures) OTC Rulebook – Section 6 – Default
- ASX Recovery Rules

These rules set out when the CCPs may take action against a participant and the powers of the CCPs in the event of a default, including the ability of ASX to transfer client derivative positions to other participants. The ASX Recovery Rules provide the CCPs with additional recovery tools to enable them to address losses or liquidity shortfalls arising from, and replenish financial resources utilised as a result of, a clearing participant default.

ASX has published on its website an overview of each CCP's approach to managing a clearing participant default, a Guidance Note on each CCP's approach to the suspension and termination of participants (Guidance Note 5 Suspension and Termination of Participants), as well as a client fact sheet that outlines the segregation and portability arrangements in ASX Clear (Futures) and the rights of clients in the event of their clearing participant's default.

Key consideration 4

An FMI should involve its participants and other stakeholders in the testing and review of the FMI'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.

Default management fire drills are conducted for the CCP facilities at least annually, to test, review and, where applicable, enhance ASX's default management processes and procedures. The scheduled fire drills are included in a forward-looking plan that is presented to the internal governance forum (Default Management and Recovery Working Group) and Risk Consultative Committee.

These fire drill tests include relevant parties that are likely involved in the default procedures including default brokers (who the CCPs may instruct to close-out or hedge the defaulter's portfolio), the OTC Default Management Group (who provide advice to ASX Clear (Futures) on hedging and auctioning of an OTC portfolio), liquidity facility providers (including actual drawdown on the facility to test the operational capability) and participants (who may bid in an auction of the defaulting participant's portfolio).

The scope and scenarios used for each fire drill may differ depending on the objectives of each fire drill but typically include testing of the operational capability of external stakeholders to ingest files from ASX, reconciling positions with ASX and assessing stakeholders' system preparedness to trigger their processes to participate in a default event. The fire drills are also designed to test participants' ability to evaluate sizeable portfolios under extreme but plausible market conditions and assess the pricing impact from the liquidation or auction process of such sizeable portfolio in such conditions.

The results of the fire drill testing (along with any enhancement opportunities) are shared with the CS Board, the RBA and the Risk Consultative Committees.

14 Principle 14: Segregation and portability

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

Key consideration 1

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

ASX Clear

ASX Clear maintains a single (comingled) account structure for its cash market products which does not separate client positions from the participant's proprietary positions. Under the Operating Rules, ASX Clear has the power to transfer (port) participants' clients' positions without the need to seek approval from the participant's external administrator. However, porting of cash equities positions is unlikely given the two day settlement cycle and impediments to portability, including those arising from a participant's Know Your Customer (KYC) obligations where all clients have not established a pre-existing clearing arrangement with the same alternative clearer.

Under the Operating Rules, participants are not allowed to use client collateral for the purpose of meeting margin obligations to ASX Clear in connection with transactions in cash market products. Accordingly, ASX Clear should not hold client collateral which could be exposed to a default of the participant or fellow customers.

Client asset protections for cash market products provide "materially equivalent protection of customer assets by alternative means" to an omnibus client account structure under FSS 13.2.10. This includes Operating Rule amendments and system changes introduced in April 2014 and May 2015 to enhance asset protections for buying and selling clients during the trade settlement cycle. Under the Operating Rules of ASX Clear and ASX Settlement and CHES processes that apply to clearing and settlement of cash market products:

- Client securities in the Accumulation Account are maintained beneficially for the client and accurate records are required to allow daily reconciliation of securities in the Accumulation Account.
- Funds covering client purchases can only be withdrawn from the client trust account if the participant has taken all steps required to register the securities into the client's name (subject to certain exceptions based on the Corporations Act).
- When client securities are transferred from the Accumulation Account or a Direct/Sponsored Holder Identification Number (HIN) into the Settlement Account funds representing the sale proceeds (net of brokerage) are paid into the client trust account or to the client concurrent with the transfer.
- If a client's securities held in the Accumulation Account are delivered directly to a buyer, funds representing the sale proceeds (net of brokerage) are paid into the client trust account or to the client on the same day that the securities are transferred.

ASX Clear maintains a segregated account structure for its equity derivatives products which separates client positions and collateral from the participant's proprietary positions and collateral. For these products, clients are able to access individually segregated accounts that offer protection against the concurrent default of the participant and a fellow client. Under the Operating Rules, ASX Clear has the power to transfer (port) participants' clients' positions and collateral without the need to seek approval from the participant's external administrator.

ASX Clear (Futures)

ASX Clear (Futures) maintains a segregated account structure for ASX 24 Exchange Traded Derivatives and OTC Interest Rate Derivatives which separates client positions and collateral from the participant's proprietary positions. For these products, clients are able to access individually segregated accounts (known as Individual Client Accounts (ICAs)) that offer protection of the positions and collateral value of the ICA against the concurrent default of the participant and a fellow client.

ASX Clear (Futures) offers an omnibus account structure, in which multiple clients are pooled together. In an omnibus account the positions and collateral value of the account are protected against the default of the participant but a client is exposed to losses on positions of other clients in the same account. Collateral is calculated and collected on a net basis thereby exposing each client in the omnibus account to fellow client risk.

Responses for ASX's CCPs

The collateral value of an ICA or omnibus account is the greater of:

- the value determined by ASX Clear (Futures) of all collateral (if any) attributed by ASX Clear (Futures) to the account as at the time at which the participant defaults; and
- the value of IM calculated by ASX Clear (Futures) in respect of the account as at the last end-of-day time at which the participant settled its IM obligations prior to its default.

ASX has obtained an Australian law legal opinion that supports the enforceability of the client segregation and portability arrangements outlined in this Principle 14, irrespective of the jurisdiction in which the defaulting participant in the ASX CCP may be incorporated.

Key consideration 2

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

Refer to key consideration 1.

Key consideration 3

A CCP should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.

ASX Clear

Under the Operating Rules, ASX Clear has the power to transfer (port) positions and collateral without the need to seek approval from the participant's external administrator in the event of a default.

The availability of individually segregated client accounts for options supports the transfer of client positions and collateral to another participant in the event of a clearing participant default.

Under individual client segregation:

- margin requirements are calculated on a gross basis for the positions held by each client;
- excess cash may be held directly with ASX Clear and attributed to an ICA; and
- non-cash collateral is retained in the name of the registered holder, subject to a security interest in favour of ASX Clear, and attributed to individually segregated client accounts.

Accordingly, there should be sufficient collateral available to support the transfer of each client's positions to another clearing participant. However, porting is subject to an alternate clearer being able and willing to accept the client's positions within prescribed timeframes.

A single (comingled) account structure is maintained by ASX Clear for cash market products which does not separate client positions from the participant's proprietary positions. There are however a range of legal and practical impediments to the porting of cash equities positions on the default of a clearing participant which make the porting of such positions at scale unlikely with a two day settlement cycle, regardless of whether segregation of positions was introduced. Such impediments to portability include obligations of participants to perform KYC procedures before accepting ported clients and the need for clients to have established a clearing arrangement with an alternative clearer.

ASX Clear (Futures)

Under the Operating Rules, ASX Clear (Futures) has the power to transfer (port) positions and collateral of a participant's clients without the need to seek approval from the participant's external administrator in the event of a default. The availability of ICAs for ASX 24 Exchange Traded Derivatives and OTC Interest Rate Derivatives supports the transfer of client positions and collateral value to another participant in the event of a clearing participant default.

Under the ICA model, the participant deposits with ASX Clear (Futures) the IM calculated by ASX Clear (Futures) for the ICA (there is no netting effect as with omnibus accounts) and may request that ASX Clear (Futures) attribute excess cash or specific non-cash collateral to the ICA. Accordingly, the positions and related collateral value of clients that opt for the ICA can be ported in the event of the clearing participant's default, subject to an alternate clearer being able and willing to accept the client's positions within prescribed timeframes.

Key consideration 4

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

ASX Clear

Current arrangements for segregation and portability are defined in sections 10, 12, 14, 15 and 17 of the ASX Clear Operating Rules and Procedures. Current arrangements for client asset protections for cash market products to provide "materially equivalent protection of customer assets by alternative means" to an omnibus client account structure, for the purposes of FSS 13.2.10, are set out in section 4 of the ASX Clear Operating Rules and sections 6 and 10 of the ASX Settlement Operating Rules.

Detailed information relating to the ASX Clear default management process is published on ASX's website, on both [participant focused](#) and [client focused](#) pages.

ASX Clear (Futures)

Current arrangements for segregation and portability are defined in parts 4, 7, and 10 of the ASX Clear (Futures) Operating Rules and Procedures.

Participants are required by the ASX Clear (Futures) Operating Rules to provide this [fact sheet](#) to clients who have invested in, or are considering investing in, ASX 24 Exchange Traded Derivatives or OTC Interest Rate Derivatives.

This [fact sheet](#) outlines the key features of the Client Protection Model that supports the Client Clearing Service offered by ASX Clear (Futures). Further information can be found [here](#).

Detailed information relating to the ASX Clear (Futures) default management process is published on [ASX's website](#).

15 Principle 15: General business risk

An FMI 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.

Key consideration 1

An FMI 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.

General business risks at ASX refer to the risks and potential losses that arise from operations that are not related to participant default nor separately covered under credit, investment or liquidity risk. These general business risks could result in losses from poor execution of business strategy, negative cash flows or unexpected and excessively large operating expenses. General business risks can be categorised as strategic/business risks, regulatory or reputational risks, operational risks and financial risks (other than participant default risk).

ASX has robust management and control systems to identify, monitor and manage general business risks. Key risks (including general business risks) identified under the ERMF are recorded in ASX's GRC application and are managed by the relevant risk owners and monitored using key risk indicators and suitably designed controls. There is quarterly risk reporting to Board Risk Committee and CS Boards.

Financial risks are mitigated through the annual preparation of the five-year business plans which are reviewed and approved by the ASX Board. These business plans include financial forecasts, new business initiatives and associated risks, and capital forecasts. These forecasts are reviewed on a monthly basis and presented to the ASX Board.

In addition, ASX has in place a number of insurance policies to reduce its exposure to a broad range of risks, including professional indemnity, fraud and operational risks such as computer equipment failure.

Key consideration 2

An FMI 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 an FMI 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.

Each CCP holds liquid net assets funded by equity so that it can continue operations and services as a going concern if it incurs general business losses.

ASX's CCPs are required to maintain sufficient general business risk capital to cover operational risk, business risk and to allow for a recovery or orderly wind-down. ASX's methodology for calculating general business risk capital is based on the RBA's FSSs for CCPs and is aligned with the European Market Infrastructure Regulation (EMIR)¹ requirements. ASX's methodology for calculating general business risk capital includes the following components:

- **Operational risk capital** based on 15% of average operating income over the past three financial years (basic indicator approach).
- **Business risk capital** based on scenario analysis of potential loss incidents with minimum capital requirement of three months of operating expenses.
- **Recovery or wind-down capital** based on the potential costs to affect a recovery or orderly wind-down with minimum capital requirement of six months of operating expenses.

¹ Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, also known as EMIR.

Responses for ASX's CCPs

- **Early warning indicator capital** based on 10% of the calculated capital requirement.

The length of time and associated operating costs of achieving a recovery or orderly wind-down of critical operations and services is based on the Orderly Wind-Down Plan maintained by ASX for its CCPs. The plan takes into consideration the time and the associated operating costs, including the one-off costs of achieving a recovery or an orderly wind-down.

In addition to general business risk capital, each CCP maintains investment risk capital to cover a potential loss from its investment of participants' margins and default capital contributions. The CCP's invest participant margins and default capital contributions into a common investment pool that is managed by ASX in accordance with an approved investment mandate (see Principle 16). In accordance with the ASX Recovery Rules, ASX's CCPs are exposed to a maximum investment loss of \$75 million (Investment Loss Threshold), which in the event of a loss is allocated to each CCP based on their proportional contribution to the common investment pool at the time of the loss. The investment risk capital held by each CCP is based on their proportional exposure to the Investment Loss Threshold using the average contribution of each CCP to the common investment pool over a period of time. The investment risk capital for each CCP includes a buffer to cover a potential shortfall should the actual proportion of a CCP on the day of an investment loss occurs differ from this average over the historical period.

Key consideration 3

An FMI 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, an FMI 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.

ASX maintains a Recovery Plan as well as an Orderly Wind-Down Plan that has been approved by the Boards of the CCPs.

The Recovery Plan sets out how each CCP can continue to provide critical services during situations of extreme financial stress which threaten the provision of those critical services ('recovery situations'). It sets out the tools available for Management and the Boards of each CCP to consider during recovery situations when a course of recovery action is required to ensure the continued supply of critical services from the entity.

The Orderly Wind-Down Plan takes into consideration the operational and technological requirements for a wind-down of the licensed business activities. The plan assesses the time, effort and cost to separate and transfer existing technology infrastructure for the relevant business activity, customer open position and transaction migration, as well as the one-off restructuring costs that the business would incur in an orderly wind-down (redundancies, contract termination etc).

ASX's CCPs currently hold an amount of capital to cover an orderly wind-down or recovery equal to a minimum of six months of the current operating expenses (based on a management profit and loss view of the expenses allocable to each business activity of the CCP). The sufficiency of this capital amount is determined by referencing the wind-down capital model, which provides different scenarios for impacts on cash flows and profitability during the wind-down when factoring in negative impacts to profitability, including the impact of one-off restructuring costs. The impact on cash flows and profitability is compared against the level of recovery or wind-down capital held by the relevant CCP to ensure that the level of capital held is sufficient.

Capital designed to cover business risks and losses is held directly by the CCPs and invested in highly liquid financial assets.

Key consideration 4

Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.

The composition of the CCPs' liquid net assets primarily includes cash, negotiable certificates of deposit, semi-government discount securities, Australian Government discount securities and reverse repurchase agreements over these discount securities. All securities are issued by semi-government and government bodies and financial institutions with a minimum S&P short-term credit rating of A-1. Under the relevant investment mandate, the securities are required to have a maturity of less than 12 months (generally each portfolio duration is less than six months). The securities are all highly liquid and the CCPs test liquidity in the securities on at least an annual basis. The short duration of each investment portfolio, investment in interest rate products only and high credit quality provides protection for little or no loss of value when converting assets into cash during adverse market conditions.

Key consideration 5

An FMI 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.

ASX's CCP have developed a viable default and non-default fund replenishment plan that has been approved by the CS Boards, and is reviewed and updated annually. The plan involves the CCPs relying on a Replenishment Deed entered into with their ultimate parent, ASX Limited whereby ASX Limited agrees to provide additional capital to the CCP to cover any replenishment of the default funds that the CCP is required to fund. The plan also involves the CCPs relying on the Group Support Agreement whereby ASX Limited agrees to maintain sufficient capital held as liquid net assets that can be made available to each CCP to meet their obligations to hold sufficient capital to maintain operations and services in the event of general operational and business losses and investment losses (excluding participant default, credit risk or liquidity risk).

16 Principle 16: Custody and investment risks

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

Key consideration 1

An FMI 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.

ASX's CCPs hold their own and their participants' assets at supervised and regulated entities:

- ASX Clear's AUD-denominated non-cash collateral is held in CHES.
- ASX Clear (Futures)' AUD-denominated non-cash collateral is held in its account in Austraclear.
- NZD denominated investment securities are held in NZClear. NZClear is owned and operated by the RBNZ.
- ASXCC cash, including term deposits, is held either with the RBA or approved ADIs.
- United States Treasury Bills posted as collateral and investment securities denominated in EUR, GBP, JPY and USD are held in Clearstream. Clearstream, a wholly owned subsidiary of Deutsche Börse, is a leading European CSD that is subject to the supervision of the Commission de Surveillance du Secteur Financier and Banque Centrale du Luxembourg in Luxembourg.
- Cash collateral collected in USD from the 2.00am margin process is held across five United States banks until it is returned following the settlement of the subsequent first AUD intraday margin run.

Any AUD securities owned directly or indirectly by ASXCC are held in Austraclear.

Key consideration 2

An FMI should have prompt access to its assets and the assets provided by participants, when required.

ASX Clearing Corporation

- AUD denominated assets invested on behalf of ASX's CCPs and their participants are subject to ASX's CCPs' exclusive custody.
- Investments are held directly by ASXCC: NZD denominated investments are held in NZClear and investments denominated in EUR, JPY, GBP and USD are held in Clearstream and approved ADIs.
- ASXCC Cash, including term deposits, is held either with the RBA or approved ADIs.
- The ASXCC portfolio is invested in AUD denominated cash, Bank Bills and Negotiable Certificates of Deposits, and Australian Government and state issued bonds (directly or via reverse repurchase agreement).
- The Investment Mandate identifies a maximum Portfolio Weighted Average Maturity and a trigger that provides early warning of the maximum average maturity being approached.

These arrangements ensure that ASX's CCPs have prompt access to participant collateral and their own contributions to prefunded financial resources, including in the event of participant default.

ASX Clear and ASX Clear (Futures)

ASX's CCPs' own capital is invested in AUD denominated cash, Bank Bills and Negotiable Certificates of Deposits, and Australian Government and state issued bonds in a separate investment pool from the ASXCC Investment portfolio and in accordance with their respective Investment Mandates.

A custodian is not used to hold these assets.

The Investment Mandate identifies a maximum Portfolio Weighted Average Maturity and a trigger that provides early warning of the maximum average maturity being approached.

These measures contribute to ensuring that ASX's CCPs have prompt access to their assets as required.

Key consideration 3

An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.

United States Treasury Bills posted as collateral and investment securities denominated in EUR, GBP, JPY and USD are held in Clearstream. Clearstream, a wholly owned subsidiary of Deutsche Börse, is a leading European CSD that is subject to the supervision of the Commission de Surveillance du Secteur Financier and Banque Centrale du Luxembourg in Luxembourg.

Key consideration 4

An FMI'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.

ASX Clearing Corporation

ASXCC is the controlling entity for the investments of both ASX CCPs. ASXCC invests funds in accordance with a defined treasury investment policy which is endorsed by the Clearing Boards. ASX's CCPs' investment policy articulates the basis for ASX's CCPs' mitigation of investment-related credit, market and liquidity risks. The primary objective of the Investment Mandate is to ensure that the investment portfolio is made up of highly liquid financial instruments with a high credit quality and low levels of market risk. This is driven by ASX's CCPs' requirement to have timely and certain access to funds at all times, including in the event of clearing participant default. This objective is achieved by setting appropriate limits and restrictions on investment products and on the amount and source of credit, liquidity and market risk exposures.

All investments are purchased by ASXCC with the intent to hold until maturity, however investments may be sold as liquidity or other needs arise, and so will be deemed 'available-for-sale'.

To ensure the ongoing appropriateness of the investment policy, it is reviewed on an annual basis by the CS Boards. Information regarding ASXCC's investment portfolio is provided to clearing participants via reporting to the Risk Consultative Committees and via publicly available quarterly quantitative disclosures on ASX's website.

ASX Clear and ASX Clear (Futures)

Separate Investment Mandates exist for each ASX CCP for the investment of that ASX CCPs' own capital to cover business and operational risk. The Investment Mandates set out approved products, counterparties and their limits and portfolio limits.

To ensure the ongoing appropriateness of the Investment Mandates, they are reviewed on an annual basis by the CS Boards.

As the funds invested by ASX's CCPs represent ASX funds, the respective ASX CCP Investment Mandates are not disclosed to participants.

17 Principle 17: Operational risk

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

Key consideration 1

An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures and controls to identify, monitor and manage operational risks.

ASX's CCPs adopt ASX's framework for risk management which is described in its ERMF. This outlines: the overall risk environment in the ASX Group; the fundamental risk management processes for identification and assessment, treatment, monitoring, reporting and communicating risk; as well as the risk governance structure, which summarises responsibilities for ownership and management, framework and risk appetite overview and executive management committee and Board oversight.

ASX's risk appetite statement is a central component of ASX's risk management framework and describes the risk types encountered in ASX's business, along with tolerance thresholds. Tolerance thresholds are expressed through key risk indicators that are cascaded throughout ASX to assist employees in their day-to-day management of risk. This helps ensure the whole organisation operates within agreed risk tolerance boundaries. ASX's stated tolerance for technology, counterparty, financial, operational, legal and regulatory risks is 'very low'.

ASX integrates commercial standards into its risk management frameworks. For example, the ERMF is assessed against the international standard ISO 31000:2018 Risk Management – Principles and Guidelines. The BCMF has been prepared with reference to the ISO International Standard on business continuity and the Business Continuity Institute's Good Practice Guidelines. The ASX Fraud Control Policy references Standards Australia's Standard on Fraud and Corruption Control.

ASX's CMF is aligned with the ISO 37301:2001 compliance management systems. It provides processes, systems and tools to facilitate effective regulatory risk management and compliance with obligations applicable to ASX's CCPs. ASX's GRC application documents risks, obligations and controls, facilitating implementation of ASX's ERMF and CMF.

The ERMF, CMF and other policies and procedures are the subject of internal and external review. ASX has a Policy Design and Review Handbook, which sets out governance arrangements for ASX policies and associated procedures and systems, including a policy cycle review process.

ASX's Change Management Policy and Process documents are reviewed and approved annually.

Key consideration 2

An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk management framework. Systems, operational policies, procedures and controls should be reviewed, audited and tested periodically and after significant changes.

The Board has formally endorsed ASX's ERMF, which assigns specific risk responsibilities across the ASX Group, including to the ASX Limited Board of Directors, the Board Risk Committee, the Management Risk Committee, Enterprise Risk and Compliance, executive management and business unit management and employees. The CS Boards oversee ASX's CCPs operational risks as per carve out in the Board Risk Committee Charter.

The Board Risk Committee's Charter outlines the Committee's role in:

- Reviewing ASX's risk strategy and appetite.
- Monitoring the effectiveness of the ERMF.
- Overseeing management's implementation of risk controls.
- Receiving and tracking plans to return risks within Board-approved appetite

Responses for ASX's CCPs

The Management Risk Committee, comprising executives from across divisions, is responsible for overseeing the implementation and adequacy of enterprise risk management and risk processes to ensure risks are being managed within the board approved risk appetite.

Individual departments are responsible for: identifying business-specific risks; applying controls; maintaining risk management systems; testing and 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 it on a periodic basis and updating as appropriate. More frequent reviews are undertaken where there are potential changes to technology, legal or regulatory requirements, or business drivers. The risk, issues and audit items are also reviewed and discussed quarterly at divisional Risk Working Groups.

The ERMF is reviewed annually, with material changes requiring approval by the Board Risk Committee. Every three years, the operating effectiveness of the ERMF is reviewed by an independent expert.

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 Supervision 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 also considered by external auditors as required by the scope of the audit.

ASX has an Accountability Framework, which is approved by the board. The Accountability Framework sets out the accountability map, accountability statements, reasonable steps and the reasonable steps assessment. The accountability statements in place for all ASX executives set out the allocation of responsibilities, which includes risk management, to executives across ASX's operations.

Key consideration 3

An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.

ASX's CCPs have clearly defined operational objectives in place. Monthly management reporting summarises performance against availability measures and other measures such as critical system capacity and headroom and includes a description of any incidents where an outage has occurred to a critical service. Actual capacity and performance of CCP systems is tested on a periodic basis. A required level of redundant capacity is taken into account. There are tools and controls in place that are used to monitor, review and test the capacity and performance of the systems.

Availability targets are documented and defined formally for critical services. The CCP systems are required to meet a minimum availability target of between 99.8% and 99.95% depending on system criticality, contractual or regulatory requirement, or the system implementation date.

The CS Boards formally endorse set tolerance levels. They receive regular reporting on system performance and incidents. The Board Risk Committee and Technology Committee also monitor enterprise-level risk metrics.

The operational reliability targets are documented in internal artefacts that define uptime requirements, maintenance windows, recovery objectives, and roles and responsibilities.

Key consideration 4

An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.

ASX's CCPs are designed to have scalable capacity which is maintained at levels to support increasing volumes and service availability objectives.

Scalable capacity is maintained at levels to support increasing volumes and service availability objectives. The internal metric for target capacity is to maintain 100% over peak recorded daily measured monthly, rolling three and 24 month and historical peak volumes. Review of current and projected capacity requirements are triggered when a service does not meet 100% available headroom, or when a significant/environmental change to the service.

ASX's CCPs have real time monitoring as well as reporting in place to identify capacity performance which may have caused disruptions or may cause issues in the future and action will be taken to investigate and where necessary put actions in place to increase headroom.

Key consideration 5

An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.

ASX has a range of security policies and standards, designed to provide guidance to employees and safeguard the ASX technology environment against threats which may disable or affect its effectiveness (including cyber security threats). Policies, standards and guidelines cover user access and administration, infrastructure builds, default security requirements, firewalls, encryption, virus protection, passwords, removable media, email, internet and other risks.

ASX has implemented physical security measures in accordance with ISO27001 standards and other frameworks that minimise or remove the risk of harm to people, and information and physical asset resources being made inoperable or inaccessible, or being accessed, used or removed without proper authorisation.

ASX performs regular threat and vulnerability reviews of our critical systems, using third-party experts..

Key consideration 6

An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.

BCM is a key component of ASX's ERMF and includes the following key elements: crisis management; business continuity; business resumption; exercise and awareness. It encompasses the analysis and arrangements in place to support continuation and/or timely resumption of business activities and services.

ASX business continuity arrangements are underpinned by a permanent three site dual operations model with dual site technology and dual site split team operations in place. There are sufficient resources, capabilities and functionalities and appropriate staffing arrangements at both the primary and alternate operations sites (including the use of remote working arrangements). One operations site is located outside of the Sydney CBD. The primary and backup data centres are both located outside of the CBD and are geographically separated.

ASX's CCPs conduct business impact analysis' and maintain business continuity plans detailing the operational responses to a disruption of core service delivery. The plans identify and address events that pose a significant risk of disrupting core services' operations, for example technology failure, employee unavailability, pandemic, cyber-attack, greater CBD inaccessibility and primary site and systems unusable. The business impact analysis and plans are reviewed annually.

ASX has a Crisis Management Framework, Incident Management Framework and IT Incident Management Process in place.

ASX's business continuity arrangements are designed to achieve failover to the backup site data centre within two hours and to ensure there is zero or near zero data loss. Front-end servers handling communications with participants are configured to provide automatic failover across sites.

ASX has a comprehensive exercise framework and regularly tests its business continuity arrangements. Dual site operational teams across the primary and alternate operations sites effectively test backup operational capabilities on a continuous basis. Live tests, where clearing and settlement services are provided in real time from the alternate backup data centre site, are conducted annually. Restoration from backup tests is also conducted on an annual basis.

Key consideration 7

An FMI should identify, monitor and manage the risks that key participants, other FMIs and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor and manage the risks its operations might pose to other FMIs.

ASX's CCPs have identified risks that key participants, other FMIs and key third party providers pose to and from its operations. The CCPs admission requirements are designed to limit the risks that the CCPs face including tiered business continuity arrangements depending upon the volume of activity, financial requirements as well as operational, resource and technological requirements.

Responses for ASX's CCPs

ASX has developed a Supplier Lifecycle Policy and Standard which sets the framework and processes for how supplier risk is assessed (based on criticality) and managed. Criticality is assessed at supplier arrangement level at the outset of the arrangement, reviewed periodically, and managed on an ongoing basis based on supplier tier.

The supplier's tier is identified by a criticality assessment which considers if the supplier's service supports ASX license obligations or if an outage would cause a significant BCP event, and prescribes enhanced governance protocols over such suppliers (for example risk questionnaires, financial due diligence, BCP arrangements, cyber protocols as well as periodic supplier governance meetings with a defined agenda emphasising risk and performance aspects of the relationship).

18 Principle 18: Access and participation requirements

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

Key consideration 1

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

Requirements for participation in ASX Clear and ASX Clear (Futures) are principle based and are designed to ensure that all participants have sufficient resources (financial, technical and human) and processes (supervision, compliance, risk management, business continuity and disaster recover) to meet their obligations. ASX has published its articulation of what it means to provide its clearing and settlement services in a 'fair and effective' way in a document entitled [Fair and Effective Clearing and Settlement Facilities](#).

Guidance Notes on admission as an ASX Clear and ASX Clear (Futures) participant are included in the [Participant Application Kit](#), and include risk-related participant requirements.

Capital requirements, as well as other risk-related requirements, for ASX Clear and ASX Clear (Futures) participants are set-out [online](#) (refer to section 1(f) for a summary of the capital requirements for clearing participants).

Relevant Operating Rule oversight and Guidance Notes can be found on the [ASX website](#), see in particular:

- ASX Clear Operating Rules [Section 3: Participation in the Clearing Facility](#);
- ASX Clear Operating Rules [Section 4: Rights and Obligations of Participants](#);
- ASX Clear Operating Rules [Section 5: Risk Management Capital Requirements](#);
- ASX Clear [Guidance Note 1: Admission as a Participant](#);
- ASX Clear (Futures) Operating Rules [Part 2: General](#); and
- ASX Clear (Futures) [Guidance Note 1: Admission as a Participant](#).

In considering the balance between fair and open access and management of systemic risk, ASX monitors a number of indicators for participants, including capital ratios, as well as applying margin based controls commensurate with the nature and scale of the participants activity, rather than relying solely on pre-set admission criteria.

Key consideration 2

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

Reviews of participant admission, access restrictions and eligibility requirements are undertaken as needed and take into consideration the market conditions and regulatory requirements. Any material changes to the Operating Rules will be consulted on and subject to regulatory approvals to ensure they are fair.

Admission requirements are principle based with guidance issued around expectations and evidence requirements to demonstrate the capabilities to become a participant.

ASX offers different classes of participation to participants which will take into account their needs, activities and requirements.

Guidance Notes on admission as an ASX Clear and ASX Clear (Futures) participant are included in the [Participant Application Kit](#), and include risk-related participant requirements. Capital requirements, as well as other risk related requirements, for ASX Clear and ASX Clear (Futures) participants are set-out [online](#). Having capital requirements, among other admission requirements, seeks to ensure that only entities with an adequate level of financial resources are admitted, and remain, as clearing participants. All ASX Clear non-bank participants are subject to the same risk based capital regime, within which participants that undertake higher risk activities are required to hold a higher level of capital. ASX Clear (Futures) participants are largely subject to a net tangible asset requirement, which is higher for OTC participants than futures participants, reflecting the higher risk of OTC derivatives clearing.

Key consideration 3

An FMI 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.

Relevant Operating Rules require participants to comply with the admission requirements on an ongoing basis and include notification requirements for participants to advise of changes to their businesses which will be assessed to ensure ongoing compliance with the admission criteria. The relevant Operating Rules also permit conditions to be imposed on participants as a way of managing a change in the profile of the participant which may limit the exposures the participant can take or notification requirements. Detailed Operating Rules and Guidance Notes set out the basis for triggers for an event of default as well as suspension and termination.

ASX's Participants Compliance team conducts risk-based thematic compliance reviews to monitor participants' compliance with the relevant Operating Rules.

Relevant documents disclosed on the ASX website include:

- Monitoring and Enforcing Compliance: [Monitoring and Enforcing Compliance with ASX's Operating Rules](#);
- For ASX Clear: [ASX Clear Default Management Overview](#); and
- For ASX Clear (Futures): [ASXCLF Clearing Participant Default Overview](#).

The Counterparty Risk Assessment unit reviews financial information provided by participants to monitor their compliance with the relevant capital requirements. Participants provide financial information via monthly, annual and ad hoc and returns. The returns must be provided by the lodgement deadlines specified by the ASX CCPs and must be authorised by directors (or alternatively by authorised signatories in the case of ASX Clear (Futures) participants).

The Counterparty Risk Assessment unit is also responsible for developing and monitoring the capital regimes that clearing participants must comply with. This includes developing the policy framework and reporting mechanisms designed to ensure that the financial strength of participants is measured and monitored on a regular basis.

A clearing participant watchlist is prepared on a monthly basis. The purpose of the watchlist is to provide information to senior management on those clearing participants that appear to be experiencing financial, risk, operational, compliance or reputational issues that may impact their ongoing ability to meet their obligations as a participant and therefore need to be monitored more closely.

Relevant Operating Rule oversight and Guidance Notes can be found on ASX's [website](#), see in particular:

- ASX Clear: [Section 15](#): Default;
- ASX Clear: [Guidance Note 5](#): Suspension and Termination of Participants;
- ASX Clear (Futures): [Part 7: Procedures on a Default](#); and
- ASX Clear (Futures): [Guidance Note 5](#): Suspension and Termination of Participants.

19 Principle 19: Tiered participation arrangements

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

Key consideration 1

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

ASX Clear and ASX Clear (Futures) both have tiered participation arrangements as follows:

- Direct participants: entities admitted as clearing participants under the ASX Operating Rules, responsible for meeting all obligations to the CCP.
- Indirect participants: clients of clearing participants, including market participants, banks, asset managers, hedge funds, market makers and individuals, who do not have a direct contractual relationship with the CCP but whose transactions are cleared through a direct participant.

ASX's CCP Tiered Participation Policy establishes a framework for identifying, monitoring and managing risks arising from these arrangements.

ASX's CCPs gather information on indirect participation through several mechanisms:

- Operating Rule framework: the ASX Operating Rules empower the CCPs to request information on any activities covered under the framework, including those relating to indirect clients.
- Capital monitoring: under capital monitoring provisions, CCPs gather information on all activities conducted by non-bank participants and report overdue client obligations monthly.
- Position Reporting:
 - for ASX Clear, most clients hold ICAs, which enables monitoring at the client level and enables the CCP to ascertain concentration and exposure; and
 - for ASX Clear (Futures), clearing participants must provide daily reports on client open positions, enabling the CCP to monitor concentration and exposure.
- Client agreements: clearing participants are required to have client agreements in place, which include obligations for clients to meet margin requirements and allow for the collection of relevant information.
- Periodic reviews: the CCPs conduct reviews of participant client risk management frameworks, which inform ongoing monitoring.
- Derivatives: house and client activity is segregated enabling the CCPs to understand materiality of aggregate client exposure to the clearing participants (e.g. margin).

Key consideration 2

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

ASX's CCPs identify material dependencies between direct and indirect participants through a combination of data collection, monitoring and participant engagement:

- Position reporting: for ASX Clear (Futures), clearing participants provide daily reports on client open positions which allows the CCP to review concentration across a clearing participant or multiple clearing participants.
- Account structure: the CCPs distinguish between house and client accounts, allowing for the identification of the proportion of activity conducted on behalf of indirect participants.
- Participant reviews: the CCPs conduct periodic reviews of participant risk management frameworks, including how participants manage client risk and dependencies.
- Incident and event reviews: when issues arise (e.g. onboarding of a new large indirect participant), ASX's CCPs undertakes targeted reviews of the relevant participant's risk management framework and dependencies.
- Engagement with participants: discussions with participants on business developments, risk management activities and changes in client base help identify emerging dependencies.

Key consideration 3

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

ASX's CCPs have processes in place to identify and monitor:

- Proportion of activity: the granularity of margin and position data allows ASX's CCPs to determine the proportion of activity conducted by direct participants on behalf of indirect participants. For derivatives, client margin is segregated from house margin, and client-level position data is available from position reporting.
- Direct participants with many indirect participants: ASX's CCPs monitor the number and activity of indirect participants associated with each direct participant, identifying those acting on behalf of a material number of clients.
- Significant indirect participants: indicators for activity by clearing participants are used to flag changes in volume or activity, prompting further enquiry where necessary. ASX's CCPs also maintain relationships with indirect participants that generate a material share of overall trade volume.
- Large indirect participants relative to direct participants: ASX's CCPs use position and margin data to identify indirect participants whose transaction volumes or values are large relative to the capacity of their direct participant. This is supported by periodic reviews and targeted investigations.

Risks identified include concentration risk, contagion risk and operational risk. ASX's CCPs manage these risks through margining, additional initial margins, monitoring and reviews, participant engagement and capital requirements.

Key consideration 4

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

ASX's CCPs have established policies and procedures for the regular review of rules and risk management frameworks relating to tiered participation:

- Policy review cycle: ASX's CCP Tiered Participation Policy and related standards are reviewed every two years, with material changes requiring approval by the CS Boards.
- Continuous improvement: the CCPs monitor developments in participant activity, market structure and regulatory requirements, updating policies and procedures as necessary to address emerging risks.

ASX's CCPs monitor and mitigate risks arising from tiered participation arrangements through:

- Ongoing data collection: daily monitoring of margin and position data.
- Periodic reviews: ad hoc reviews of participant risk management frameworks.
- Participant engagement: periodic discussions with participants on risk management practices and business developments.
- Policy updates: policies and procedures are updated as needed to address identified risks and regulatory expectations.

20

Principle 20: FMI links

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

Key consideration 1

Before entering into a link arrangement and on an ongoing basis once the link is established, an FMI should identify, monitor and manage all potential sources of risk arising from the link arrangement. Link arrangements should be designed such that each FMI is able to observe the other principles in this report.

As a CCP, the following links exist between ASX's CCPs and other FMIs:

- ASX Clear and ASX Settlement, for the settlement of novated cash equity market transactions;
- ASX Clear and Austraclear, for the settlement of AUD margin payments;
- ASX Clear (Futures) and Austraclear, for AUD fund transfers and lodgement of AUD-denominated non-cash collateral;
- ASX Clear (Futures) and High Value Clearing System (HVCS) (operated by Payments NZ), for the settlement of NZD payments; and
- ASX Clear (Futures) and ASX Clear and the DTCC Data Repository (Singapore) Pty Ltd (DTCC), for the provision of trade repository services for cleared OTC transactions.

The CCPs' links to ASX Settlement and Austraclear are subject to the ERMF that covers all ASX CS facilities. The framework addresses operational and technology risks. Incident reports are required for all significant technical or operational incidents and include, in the assessment, mitigating actions to reduce the risk of reoccurrence. Annual independent system-controls audits are also performed (ASAE 3402 Assurance Reports).

The link from ASX Clear (Futures) to HVCS is limited by the small size of NZD margin requirements. The HVCS rules, standards and procedures set out how these types of transactions are made, including what payment information is required and the timeframes for completing the transaction. HVCS participants use a dedicated SWIFT-based system between banks to settle these payments and interchange information between them. ASX Clear (Futures) also has contingency arrangements that allow for late payment of margin on New Zealand futures products via Austraclear in AUD if required.

ASX Clear (Futures) uses SWIFT/commercial bank accounts for USD intraday margins and collateral deposits for USD, GBP, JPY and EUR.

ASX Clear (Futures) uses Clearstream to facilitate USD non-cash collateral deposits.

The CCPs' links to DTCC for trade reporting purposes are supported by contractual arrangements between the FMIs.

Key consideration 2

A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the FMIs involved in the link.

All links have a well-founded legal basis supported by contractual arrangements which include, where applicable, Operating Rules that establish the framework for participation in the FMI or the provision of settlement instructions from one FMI to another. ASX conducts legal due diligence on the non-ASX Group FMI links on a periodic basis and reviews any regulatory matters that may impact those FMI links.

FMI links between the ASX entities are established in Australia.

ASX Clear's links to Austraclear and ASX Settlement have their legal basis in the rules and procedures of those facilities. The finality of settlements in the systems is supported, respectively, by approvals of the Austraclear System under Part 2 of the PSNA, and by the approval of CHES (operated by ASX Settlement) under Part 3 of the PSNA.

ASX Clear (Futures)' link to Austraclear has its legal basis in the Austraclear Regulations and procedures. Securities are held in a bankruptcy remote manner from Austraclear. The finality of cash and securities settlements in Austraclear, including transactions submitted via these links, is supported by its approval under Part 2 of the PSNA.

ASX Clear (Futures)' link to HVCS for NZD margin payments is established in New Zealand. ASX Clear (Futures)' link to HVCS has its legal basis in the rules and procedures of Payments NZ. The rules provide that cash settlements must take place through the NZ Exchange Settlement Account System (ESAS) (operated by the RBNZ). ESAS is a designated settlement system under

Responses for ASX's CCPs

Part 5C of the Reserve Bank Act 1989 (New Zealand) and designation gives legislative backing to the finality of settlements effected in accordance with the rules of the system.

The CCPs' links to DTCC for trade reporting are established in Singapore. The CCPs' links to DTCC for trade reporting purposes do not give rise to legal risks associated with the clearing and settlement of transactions or the recording of title to assets. Nevertheless, the CCPs' links to DTCC are supported by contractual arrangements between the FMIs.

Key consideration 7

Before entering into a link with another CCP, a CCP should identify and manage the potential spillover effects from the default of the linked CCP. If a link has three or more CCPs, each CCP should identify, assess and manage the risks of the collective link arrangement.

ASX Clear and ASX Clear (Futures) have no links with other CCPs.

Key consideration 8

Each CCP in a CCP link arrangement should be able to cover, at least on a daily basis, its current and potential future exposures to the linked CCP and its participants, if any, fully with a high degree of confidence without reducing the CCP's ability to fulfil its obligations to its own participants at any time.

ASX Clear and ASX Clear (Futures) have no links with other CCPs.

Key consideration 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.

Not applicable to ASX's CCPs.

21

Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Key consideration 1

An FMI 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.

ASX Clear and ASX Clear (Futures) provide a range of participation choices to suit the market and tailor the application process and arrangements dependant on the products and markets available. Refer to [ASX's website](#) for further details.

The ASX Clear and ASX Clear (Futures) Risk Consultative Committees are forums established by ASX Clear and ASX Clear (Futures) for the purpose of consulting with their clearing participants in relation to matters which may have an impact on the risk management of ASX's CCPs and their clearing participants.

ASX Clear

User input is provided to the Boards of ASX Clear and ASX Settlement on the ongoing operation and development of cash equity clearing infrastructure and services by the independently chaired [ASX Business Committee](#). Additional forums have been established by the Business Committee to ensure that participant needs are being served, including the [CHESS Replacement Technical Committee](#), [CHESS Replacement working groups](#) and a [T+1 Working Group](#). Regular bilateral meetings also occur.

The ASX [Cash Equities Clearing and Settlement Advisory Group](#), also independently chaired and with a majority of independent members, provides advice to the Boards of ASX Clear and ASX Settlement on strategic clearing and settlement matters.

ASX Clear (Futures)

ASX Clear (Futures) consults with participants via formal consultation papers, regular bilateral meetings with clearing participants and the ASX Clear (Futures) Working Group, where participants may provide input on commercial, technical and operational aspects of the derivatives clearing service.

ASX has taken a number of steps to ensure robust engagement with stakeholders on its ClearStar Program, including establishment of a ClearStar Program Committee (chaired by a clearing participant representative) and project-specific working groups on business design, technical, and implementation and transition to ensure appropriate and targeted stakeholder engagement with subject matter experts.

Key consideration 2

An FMI 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.

Each ASX CCP has in place a corporate strategy that places a high priority on the safety of the facility and promotes financial stability. Each strategy outlines the key objectives and goals, along with the current initiatives to deliver agreed goals. ASX's CCPs' strategies are refreshed annually, with progress monitored on a quarterly basis via reporting to the CS Boards. The strategy documents cover areas such as risk management and business priorities.

Availability targets for critical systems have been set and are monitored and reported to relevant governance committees on a regular basis. For ASX Clear, the minimum system availability target is 99.8% for CHESS, the Trade Acceptance Service and Derivatives Clearing System. For ASX Clear (Futures), the minimum system availability target is 99.95% for Genium and 99.95% for Calypso.

ASX has policies and procedures regarding risk management, for more information refer to Principle 3.

ASX Clear publishes information regarding business priorities for CHESS through the CHESS Roadmap, published annually on ASX's website.

Key consideration 3

An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.

Business strategy documents provide for periodic reporting to the CS Boards of progress against the goals and objectives, at a minimum on a quarterly basis. The business strategy is reviewed annually.

ASX has a balanced scorecard approach, with metrics to track and measure performance of outcomes.

ASX undertakes regular stakeholder engagement via the forums detailed in key consideration 1. Stakeholder feedback is obtained from stakeholder engagement and surveys, which provides a regular review of ASX Clear and ASX Clear (Futures)' efficiency and effectiveness. Stakeholder feedback is recorded.

External assurance is performed on key artefacts which provides additional assurance that ASX's CCPs are operating effectively.

As part of its commitment to continuous improvement, ASX has a suite of policies and procedures to support the activities to supervise the ASX CCPs. These policies and procedures are reviewed on a regular basis.

ASX Clear and ASX Clear (Futures) are subject to review by both ASIC and the RBA.

22

Principle 22: Communication procedures and standards

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

Key consideration 1

An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.

ASX Clear and ASX Clear (Futures) use industry recognised communication standards specific to the domestic and regional market.

ASX Clear

ASX Clear currently uses a proprietary system, CHESSE. CHESSE is used by domestic clearing participants, settlement participants, payment providers and issuers (via share registries) for the secure and efficient clearing (and settlement) of products transacted on an AMO using proprietary format messaging protocols. AMOs using ASX Clear's facilities are informed of any changes to connectivity or messaging protocols (either standardised or commercial) and there are processes and procedures in place to determine impact and actions required to accommodate changes.

As part of its initiative to [replace CHESSE](#), ASX will implement global messaging standards: FIX for trade registrations and ISO 20022 for clearing, settlement, and subregister operations. The Clearing system is anticipated to transition in the first half of 2026, introducing the FIX messaging standard to AMOs. Settlement functionality, utilising ISO 20022 messages, is scheduled for delivery in 2029.

Additionally, derivatives cleared via ASX Clear operate on proprietary systems. The proprietary system will transition to international communication standards at the appropriate juncture.

ASX Clear (Futures)

ASX Clear (Futures) uses Genium Clearing and OMNET API as an industry recognised communication standard to facilitate and manage the clearing of ASX 24 products.

Genium Clearing and the OMNET API are used regionally in neighbouring exchanges (for example Singapore Exchange) and further afield across Scandinavian markets.

For OTC clearing of client clearing accounts, a proprietary FpML API is used.

23

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

An FMI 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 FMI. All relevant rules and key procedures should be publicly disclosed.

Key consideration 1

An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.

Rules/regulations and procedures, including any amendments are disclosed to participants and published on ASX's [website](#). ASX will publish a market notice to participants of changes to its rules and procedures and include a marked-up version of those changes in the market notice.

Key policies and procedures such as application forms, clearing forms, acceptable collateral lists, interest payments, haircuts and user guides are disclosed via ASX's website.

ASX conducts a review of the CS facilities' rules and procedures on a five-year cycle, to consider any changes that mitigate systemic risk or are otherwise desirable, address stakeholder feedback and replace redundant or inconsistent rules and procedures. This helps to ensure that the rules and procedures remain clear and comprehensive. ASX's CCPs also take in feedback as part of engagement with participants as well as where rules are investigated and there does not appear to be clarity or enforceability.

Key consideration 2

An FMI should disclose clear descriptions of the system's design and operations, as well as the FMI's and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.

The rights and obligations of participants are set out in the rules and procedure guidelines of ASX's CCPs which are published on ASX's [website](#), with further information set out here for:

- [ASX Clear](#); and
- [ASX Clear \(Futures\)](#).

ASX's website provides descriptions of the clearing process [here](#) and margining approaches for securities (cash market) and derivatives (exchange-traded or OTC) in ASX Clear [here](#).

ASX's website provides descriptions of the clearing processes and margining approaches for exchange-traded and OTC derivatives in ASX Clear (Futures) [here](#) and for overnight margining [here](#).

ASX's website also provide participants with user guides for system design and operations [here](#).

Key consideration 3

An FMI should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.

A Participant Application Kit is available on ASX's [website](#) for new and prospective participants, which provides participants with key forms and Guidance Notes about the requirements for admission as a participant, including:

- ASX Clear [Guidance Note 1: Admission as a Participant](#); and
- ASX Clear (Futures) [Guidance Note 1: Admission as a Participant](#).

The rules and procedures and additional participant education material are also available on ASX's website.

Responses for ASX's CCPs

ASX has published fact sheets for ASX's CCPs that cover topics including default management, novation and investment risks for clients under the ASX Recovery Rules.

Consultation papers are provided as part of [public consultations](#) conducted on amendments to rules and procedures (among other things).

Education webinars and online modules are available [online](#).

New clearing participants are required to complete an operational readiness assessment prior to admission and ASX's Participants Compliance team will undertake a detailed review of a number of the applicants' key processes as part of the onboarding process to ensure the applicant understands their obligations under ASX's Operating Rules.

Participants Compliance, as part of its ongoing participant engagement and review program of work, will assess what education or guidance is required and will issue that to participants. Clearing participants have a dedicated adviser who can assist them with questions or advise on the application of the rules.

If it becomes apparent that a clearing participant does not have the expected level of understanding of a particular element of the clearing process, the clearing team will provide additional training. Where the clearing participant appears to lack sufficient understanding of the obligations and rules, Participants Compliance will investigate a non-compliance event and may refer the matter to ASX's Enforcement team.

Key consideration 4

An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.

ASX Clear

ASX's Clearing and Settlement schedule of fees is published on ASX's [website](#).

On 1 July 2025, ASX introduced a [Cash Equities Clearing, Settlement and Issuer Services Pricing Policy](#). The process related to amending the fee schedules is outlined in the Cash Equities Clearing, Settlement and Issuer Services Pricing Policy specifically the occurrence of a 'trigger event'. In the event of any fee changes, ASX would consult with participants as outlined in the policy.

ASX Clear (Futures)

The ASX Clear (Futures) schedule of fees is published on ASX's [website](#). Any fee changes are communicated to participants via market notice generally two to three months in advance of the effective date.

Key consideration 5

An FMI should complete regularly and disclose publicly responses to the CPMI-IOSCO Disclosure Framework for Financial Market Infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.

The CPMI-IOSCO Disclosure Framework for Financial Market Infrastructures is updated, at a minimum, every two years [here](#).

On a quarterly basis, ASX updates the Quantitative Disclosures for both [ASX Clear](#) and [ASX Clear \(Futures\)](#). These quantitative disclosures for ASX Clear and ASX Clear (Futures) enable authorities, participants and the public to understand the risks associated with the ASX CCP.

ASX publishes a monthly group activity report which includes data on transaction volumes and values. In addition, for ASX Clear, quarterly operational performance data for CHES is published on ASX's [website](#).

24

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.

Not applicable for ASX's CCPs.

4.2 Responses for ASX's SSFs

1

Principle 1: Legal basis

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

Key consideration 1

The legal basis should provide a high degree of certainty for each material aspect of an FMI's activities in all relevant jurisdictions.

ASX operates two SSFs:

- ASX Settlement Pty Limited (ABN 49 008 504 532); and
- Austraclear Limited (ABN 94 002 060 773).

ASX's two SSFs are separate legal entities, incorporated in Australia.

Material aspects of ASX's SSFs' activities, and their legal basis, are:

- **Licensing:** The primary activity of ASX's SSFs is the provision of settlement services to their participants. Each of ASX's SSFs holds an Australian CS facility licence (under Part 7.3 of the Corporations Act), which provides the legal basis for these services. The relevant licences can be found on ASIC's website.
- **Legally binding nature of ASX's SSFs' Operating Rules:** Section 822B of the Corporations Act provides that the operating rules of each of ASX's SSFs have effect as a contract under seal between:
 - the ASX SSF and each issuer;
 - the ASX SSF and each participant;
 - each issuer and each participant; and
 - each participant and each other participant.

The Operating Rules therefore comprise a statutory contract.

- **Payment Systems and Netting Act (PSNA):** In the event that a participant in an ASX SSF enters into external administration, the PSNA provides certain protections under Australian law, from reversal or invalidation under the laws of any jurisdiction, for the transfer of property, rights and obligations, and the termination, netting and settlement of obligations effected in accordance with the Operating Rules of ASX's SSFs, as follows:
 - Part 2 protects real time gross settlements effected through an approved RTGS system (each of Austraclear and CHES (operated by ASX Settlement) have this approval; RITS, in relation to which Austraclear and ASX Settlement are "feeder systems", is also an approved RTGS system);
 - Part 3 protects net settlements effected through an approved netting arrangement (each of Austraclear and ASX Settlement has this approval).
- **Title and transfer of securities:**
 - **ASX Settlement:** Securities are dematerialised (electronic) and held in CHES. Title is held in the name of the Holder (i.e. the person registered as the legal owner of financial products in a CHES Holding (account)).
 - **Austraclear:** Acts as a central securities depository for three different classes of securities:
 - Dematerialised securities: these are electronic debt securities created under the Austraclear Regulations. The Owner has good title provided that it has taken it in good faith for value and without notice of any defect in title.
 - Non-paper securities and Euroentitlements: these are electronic debt securities in respect of which Austraclear holds legal title for the Owner as nominee, while the Owner retains beneficial title. Austraclear must deal with the securities in accordance with directions entered in the Austraclear System by the Owner.
 - Paper securities: these are held by Austraclear for the Owner as bailee with the Owner retaining legal and beneficial title. Austraclear does not currently hold any paper securities.
 - The rules of ASX's SSFs provide the legal basis for the transfer of title to securities in CHES and Austraclear by way of electronic book entry and a framework for recording encumbrances. Transfers are protected by Parts 2 and 3 of the PSNA (refer to settlement finality below).
- **Creditor claims against ASX SSFs:** In the event of the insolvency of an ASX SSF, the rules and arrangements for title within the ASX SSFs are designed to provide a high degree of assurance that securities in CHES and the Austraclear System would be immune from claims by their respective creditors.

Responses for ASX's SSFs

- **Netting:** The rules of ASX Settlement and Austraclear provide for the netting of participants' obligations against each other for the purposes of batch settlement in CHESS and Assured Mode in Austraclear (a contingency system state that allows participants to continue processing securities settlement transactions in real-time even if RITS is unavailable, by deferring cash settlements until the next day). Part 3 of the PSNA protects this netting and any payment made by a party in external administration under the approved netting arrangement to discharge a net obligation.
- **Settlement Finality**
 - Under Part 2 of the PSNA, payments of money or transfers of assets by a participant of Austraclear or ASX Settlement (as Approved RTGS systems) are protected from the zero hour rule if the participant enters external administration by the negation or deferral to the next day of the effect of that external administration.
 - Under Part 3 of the PSNA, if a participant of ASX Settlement or Austraclear enters external administration, then net settlements effected through ASX's SSFs (which have approval as an approved netting arrangement) are protected.

All activities of ASX's SSFs take place in Australia (other than in respect of the securities account Austraclear maintains in Clearstream to facilitate Euroentitlements). The legal bases outlined above apply under Australian law irrespective of the jurisdiction in which a participant in ASX's SSF may be incorporated.

Austraclear maintains a securities account with Clearstream's International Central Securities Depository (ICSD) to support Euroentitlements. The Settlement Finality in Payment and Securities Settlement System Directive which has been implemented into Luxembourg Law ensures that instructions that have settled in Clearstream's settlement system (upon the successful debit and credit of the relevant accounts) are final and cannot be unwound. This means that Eurosecurities transferred into Austraclear's account at Clearstream at the direction of a Participant are final and can be reflected with a high degree of certainty as Euroentitlements in the Austraclear System.

Key consideration 2

An FMI should have rules, procedures and contracts that are clear, understandable and consistent with relevant laws and regulations.

Rules, procedures and contracts in place:

- **Rules and procedures:** each ASX SSF has its own set of Operating Rules and Procedures which govern the operation of the facility.
- **Contracts:** ASX maintains separate contract review processes in place for third party contracts. Where appropriate, ASX appoints external counsel to assist with negotiating, drafting and advising on contracts.

ASX has processes to ensure that rules, procedures and contracts are clear and understandable as follows:

- Quality control for all amendments to ASX's SSFs' Operating Rules and procedures, including:
 - ASX management oversight and approval of the drafting of amendments;
 - Consultation with participants on all material rule and procedure amendments; and
 - The regulatory clearance process for amendments to the Operating Rules, under Part 7.3 of the Corporations Act (Division 2, Subdivision B), which involves review by ASIC and RBA.
- ASX conducts a review of ASX's SSFs' rules and procedures on a five year cycle to identify and make changes that mitigate systemic risk or are otherwise desirable, address stakeholder feedback and replace redundant or inconsistent rules and procedures.
- For third party contracts, ASX maintains internal contract review processes.

ASX has processes to ensure that the rules, procedures and contracts are consistent with relevant laws and regulations as follows:

- ASX conducts a periodic internal review of amendments to (or introduction of) laws and regulations that affect ASX's SSFs' operations, and works with ASIC and the RBA as appropriate to amend its Operating Rules, Procedures and contracts to ensure ongoing consistency with the law.
- Amendments to the rules and procedures of ASX's SSFs are subject to review and non-disallowance by ASIC (in consultation with the RBA).
- Updates to ASX's legal opinions are commissioned when there are material changes to legislation that impact ASX's SSFs.
- ASX maintains contract review processes for third party contracts.
- The RBA conducts annual assessments of the ASX SSFs' compliance with the FSS, which provides further oversight of ASX's SSFs' consistency with the relevant laws and regulations.

Key consideration 3

An FMI 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 ASX's SSFs and the facilities' protection under the PSNA are set out on ASX's public website in the Operating Rules and Procedures, Guidance Notes and the PFMI disclosure framework document.

Responses for ASX's SSFs

ASX Limited (on behalf of each licensed entity within the ASX Group, including the SSFs) submits an Annual Group Licence Report to ASIC. This report sets out the legal basis for the SSFs' activities (namely the licence obligations).

ASX shares the legal opinions supporting the legal basis of the activities of ASX's SSFs (and any updates to those opinions) with regulators.

Key consideration 4

An FMI 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 FMI under such rules and procedures will not be voided, reversed or subject to stays.

Rules and Procedures: Section 822B of the Corporations Act provides that the Operating Rules of each ASX SSF have effect as a contract under seal between the ASX SSF, participants and issuers. The Operating Rules are enforceable as a statutory contract. Under the Operating Rules all participants submit to New South Wales governing law and the exclusive jurisdiction of the New South Wales Courts and courts of appeal from them.

Contracts: The contracts entered into by the ASX SSFs and third parties are enforceable under Australian contract law.

Actions taken by an ASX SSF under its Operating Rules:

- The status of actions taken by an ASX SSF under Australian law where one of its participants defaults and enters into administration is addressed by the PSNA, which provides certain protections under Australian law from reversal or invalidation under the laws of any jurisdiction for the transfer of property, rights and obligations, and the termination, netting and settlement of obligations effected in accordance with the Operating Rules of ASX's SSFs.
- ASX has analysed the legal enforceability of the rules of ASX's SSFs upon their entry into external administration (including statutory management) and has identified no material legal risk to enforceability.

Legal opinions: To ensure legal certainty in connection with their activities, ASX's SSFs obtain legal opinions as to the enforceability of key rules in relevant jurisdictions (New South Wales, Australia).

Key consideration 5

An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.

All of the activities of ASX's SSFs take place in Australia (with the exception of the securities account Austraclear maintains in Clearstream to support Euroentitlements).

The Operating Rules of ASX's SSFs are governed by Australian law and participants submit to the jurisdiction of the courts of New South Wales. This means Australia is the relevant jurisdiction for enforcement of the rules.

ASX has confirmed that Australian law applies to the legal bases outlined in key consideration 1 irrespective of the jurisdiction in which a participant in the ASX SSF may be incorporated. This means there is no conflict of laws issues in relation to these matters.

2

Principle 2: Governance

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

Key consideration 1

An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.

ASX's strategy includes ensuring that ASX continues to deliver on its licence obligations and that it has risk, compliance and operating frameworks which are actively maintained at an appropriately high standard.

ASX recognises that as an operator of (clearing and) settlement facilities it is critical that it leads by example, with good corporate governance and effective risk management. As a provider of critical financial infrastructure, ASX also recognises that it has a responsibility to support the integrity of its (clearing and) settlement facilities.

ASX's Stakeholder Charter sets out commitments to the financial community and communicates how ASX balances the interests of customers, shareholders, regulators and the broader financial markets.

Each SSF has a specific strategy document that has been developed by the CS Lead Executives and approved by the CS Boards that explicitly places a high priority on the safety of the facility, supports the stability of the financial system and other relevant public interest considerations. These strategy documents are reviewed annually, with objectives and goals reset as appropriate.

Progress against SSF goals is monitored regularly, with updates also provided to the CS Boards.

ASX has published a document, [Fair and Effective Clearing and Settlement Facilities](#), which articulates how ASX interprets its obligation under the Corporations Act to do all things necessary, to the extent that it is reasonably practicable to do so, to ensure that the services of each of its licensed clearing and settlement facilities are provided in a fair and effective way.

In performing their responsibilities, ASX's SSFs will have regard to the stability of the broader financial system, and other relevant public interest considerations as set out in the CS Boards Charter. The CS Boards Charter also refers to the statutory obligations of the CS Boards under the Corporations Act, which also include, but are not limited to, doing all other things necessary to reduce systemic risk, providing ASX's SSFs' services in a fair and effective way and having adequate conflict handling and compliance arrangements.

ASX has established a compliance function that oversees compliance by its settlement participants to ensure its regulatory function is segregated from its commercial governance.

Key consideration 2

An FMI 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.

Governance arrangements

Governance arrangements are documented in the CS Boards, ASX Limited Board and ASX Board Committee Charters.

The CS Boards provide leadership, guidance and oversight of the clearing and settlement operations of the CS subsidiaries, including management of clearing and settlement risk. The CS Boards have a number of Committees (see key consideration 3).

As set out in the CS Boards Charter, the non-ASX directors on the CS Boards:

- manage and make any variations to the decision process for those Boards, to determine whether there is an intra-group conflict;
- meet without the directors who are also directors of ASX, to consult on, and discuss, intra-group conflicts; and
- determine the process for managing the intra-group conflict by those Boards including making any recommendations to those Boards that they consider appropriate.

Responses for ASX's SSFs

When appropriate, the CS Boards establish forums to consult with participants on matters impacting operational or risk management aspects of participants' businesses. ASX's Stakeholder Charter sets out how ASX seeks to balance the interests of its customers, shareholders, regulators and the broader financial markets and summarises ASX's approach to engaging with each stakeholder group. The CS Boards have delegated the management of the CS Subsidiaries to the Managing Director and CEO of ASX. Except for those matters reserved by the CS Boards or delegated by the CS Boards to ASX Board Committees, the CEO may make all decisions and take all action required to manage the CS subsidiaries.

The Group Executive, Securities and Payments, and the Group Executive, Listings and Markets, are the CS Lead Executives responsible for the operation of ASX's SSFs. The CEO is accountable for ensuring that sufficient resources are made available for the operation of ASX's SSFs.

The CRO is responsible for developing and maintaining the clearing and settlement risk management framework for the CS subsidiaries.

The CS Boards have delegated the performance of compliance and enforcement functions of the CS facility licensees to the Chief Compliance Officer.

The CRO and CS Lead Executives are appointed and terminated by the CEO, who will consult with the CS Boards on this matter.

ASX has written agreements with executives setting out the terms of their appointment. Accountability statements are also in place for all ASX executives setting out the allocation of responsibilities to executives across ASX's operations.

Disclosure of governance arrangements

The Charters of the CS Boards, ASX Limited Board and ASX Board Committee are published on ASX's website, along with the ASX Director and ASX Executive Team members' profiles.

ASX publishes an annual Corporate Governance Report in the Annual Report, which follows the Corporate Governance Council's Principles and Recommendations.

ASX's CHES Governance Statement is available on ASX's website.

ASX uses a number of avenues to convey important updates and information to its stakeholders (including customers, regulators, partners/service providers, government, media, associations, ASX's investment community and ASX people) as set out in ASX's Stakeholder Charter. It also engages with associations, government and public policy, including working groups and member forums, project/program consultations and board level engagement with the government.

Accountability for owners, participants and other relevant stakeholders

The ASX Cash Equities Clearing and Settlement Code of Practice (Code of Practice) sets out ASX's commitments to comply with the Council of Financial Regulators' Regulatory Expectations for the Conduct of Cash Equity Clearing and Settlement Services in Australia (Regulatory Expectations), and its commitment to users in managing cash equities clearing and settlement infrastructure and services for the Australian market.

This includes the role of the ASX Business Committee as a mechanism for input into ASX's governance framework. In April 2024 the Code of Practice was updated to also reflect the function of the ASX Cash Equities Clearing and Settlement Advisory Group (Advisory Group) convened in September 2023 as a further stakeholder forum for input on strategic matters relating to clearing and settlement services and associated infrastructure, the associated regulatory expectations introduced at that time, and the interaction of the Business Committee with the new Advisory Group. The ASIC CS Services Rules were made in February 2025. These rules implement the Regulatory Expectations as enforceable obligations on ASX and impose a number of additional obligations. The Business Committee comprises representatives of clearing participants, settlement participants, approved market operators, other relevant stakeholders and their associated industry organisations.

The CHES Replacement Technical Committee was established in February 2023 as a sub-committee of the Business Committee and provides a forum for ASX and industry to focus on the replacement of CHES.

The CHES Project is a key development for cash equities clearing and settlement in Australia. ASX has given careful consideration to its engagement program with key stakeholders through the delivery of this project, including a range of working group forums and formal consultation.

Key consideration 3

The roles and responsibilities of an FMI'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.

Roles and responsibilities of the Board

Key responsibilities of the CS Boards, as set out in the CS Boards Charter, include:

- providing leadership, guidance and oversight of the clearing and settlement operations of the CS entities;
- reviewing and approving the strategy developed by management to comply with the CS facility licensees' statutory and regulatory obligations, and to monitor the execution of the strategy approved by the CS Boards;
- setting the financial and counterparty risk tolerances and key risk indicators related to the operation of the CS facility licensees;
- together with the ASX Board, approving the risk tolerances and key risk indicators for the risk categories set out in the ASX Group risk appetite statement as they apply to the CS facility licensees;
- reviewing and approving the ERMF together with any specific risk frameworks related to the operation of the CS facility licensees; and
- overseeing the adequacy of internal controls, systems and processes for the management of clearing and settlement risks of the CS facility licensees.

The responsibilities of each non-executive director of the CS Boards are set out in their accountability statement.

Conflicts of interest (board members)

Directors are required to disclose all interests that may conflict with their duties as a director of CS entities. A register of director's interests is provided to the CS Boards at each meeting. A register of committee members' interests is also provided to committee meetings. If there is a change to a director's material personal interests, the director must notify that change at or prior to the next CS Boards meeting. If a director has a material personal interest in a matter being considered by a board or committee, they must not be present during the consideration of that matter or vote on the matter, unless approved by other directors who do not have a material personal interest in the matter. Directors are expected to take reasonable steps to avoid actual or perceived conflicts of interest.

Board committees

The ASX Board has established a Board Risk Committee which also serves as a Committee of the CS Boards. The CS Chair (or another non-ASX director in their absence) is a regular attendee of the Board Risk Committee. The CS Boards have delegated to Board Risk Committee certain matters specified in the CS Charter including assisting the CS Boards to review and oversee the arrangements for the CS facility licensees to achieve compliance with their statutory obligations as licence holders with the exception of those matters carried out by the Technology Committee and the Audit and Supervision Committee.

The Nomination Committee assists the CS Boards in considering nomination matters relevant to the CS Boards.

The People and Culture Committee assists the CS Boards in considering remuneration matters relevant to the CS Boards.

The Technology Committee assists the CS Boards in considering technology, data and cyber resilience matters relevant to the CS Boards.

The Audit and Supervision Committee assists the CS Boards in considering the general corporate financial risk relevant to the CS Boards.

Board and directors performance

The CS Boards assess their performance, and the performance of individual directors annually. The reviews are conducted to help ensure the CS Boards continue to operate effectively and efficiently. The CS Boards may, in consultation with the Nomination Committee, determine to engage an external consultant to conduct the performance assessment.

Key consideration 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).

Board members' skills

The CS Boards are collectively comprised of directors with the skills and expertise necessary to discharge their respective responsibilities. In consultation with the Nomination Committee, the CS Boards will at least annually review the skills and experience represented by directors on each board to determine whether the CS Boards collectively has the mix of skills and experience which is relevant to fulfil their responsibilities. The CS Boards have developed the CS Board Skills Matrixes to capture the mix of skills, knowledge and experience relevant to the CS Boards.

Board members' remuneration

The People and Culture Committee assists the CS Boards to oversee executive remuneration and non-executive director remuneration arrangements. Non-executive director fees are set to ensure:

- ASX non-executive directors are remunerated fairly for their services, recognising the workload and level of skill and experience required for the role; and
- ASX can attract and retain talented non-executive directors.

The People and Culture Committee may take advice from an external expert to assist the committee in carrying out its responsibilities. Independent non-executive CS Board directors do not receive any performance-related remuneration.

The CS Boards have approved guidelines on director tenure.

Board independence

The CS Boards are comprised of a majority of directors who are non-executive and have been assessed by the Board as independent. ASX's website discloses which CS Directors are independent.

In determining independence, the CS Boards consider whether the director is free of interests that could (or could be perceived to) materially interfere with the independent exercise of the director's judgement and the capacity to act in the best interest of the ASX Group company that they are director of. Examples of factors considered as part of ASX's independence assessment include employment at ASX in an executive capacity within three years, in a material business relationship to ASX Group entities, a substantial shareholder, personal close ties and tenure of directorship. These are included in the ASX Group Board Policy and Guideline to Relationships Affecting Independent Status as well as materiality thresholds. This policy is published on ASX's website.

The CS Boards review the independence of each director prior to their appointment, annually against the ASX Group Board Policy and Guideline to Relationships Affecting Independent Status as well as having regard to disclosures made by directors at board meetings of any new interests, positions, affiliations or other relationships.

The Nomination Committee also reviews and makes recommendations to the CS Boards on the independence of non-executive directors.

The ASX Clear and ASX Settlement Boards comprise at least 50% non-executive directors who are also directors of ASX (non-ASX directors). The CS Boards ensure that a quorum can be constituted by non-ASX directors.

The CS Board chair of each of the CS facilities is an independent non-executive director and a non-ASX director.

The CS Boards also have meetings of non-ASX directors to:

- consider competitively sensitive information acquired in the course of providing clearing and settlement services to another market operator or listing venue; and
- oversee the provision of clearing and settlement services to another market operator or listing venue.

The non-ASX directors on the CS Boards shall:

- manage (and make any variations to) the decision process for those Boards to determine whether there is an intra-group conflict;
- meet without the directors who are also directors of ASX, to consult on, and discuss, intra-group conflicts; and
- determine the process for managing the intra-group conflict by those Boards including making any recommendations to those Boards that they consider appropriate.

Key consideration 5

The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.

Roles and responsibilities of management

The Group Executive, Securities and Payments is accountable for the management of the CS facility licences for ASX Settlement and Austraclear. Together with the Group Executive, Listings and Markets (who is accountable for management of ASX Clear (Futures) CS facility licence), the two executives have been appointed as the CS Lead Executives responsible for the operation of ASX's CCPs and SSFs.

The Group Executive, Securities and Payments is accountable to the CS Boards for the operation of the relevant ASX SSF, developing objectives, strategies and goals for the CS facility in a manner that aligns with ASX's risk appetite (subject to CS Boards review and approval) and delivering the objectives, strategies and goals approved by the CS Boards.

The main roles and responsibilities of members of the Executive Team relevant to CS operations (being the CEO, CS Lead Executives, CRO and Chief Compliance Officer) are set out in the CS Boards Charter and are more fully documented in accountability statements which set out the allocation of responsibilities to executives across ASX's operations.

The CHESS Governance Statement also contains an outline of the roles and responsibilities of management and a summary of accountability statements for relevant members of the Executive Team relating to CHESS operations, the CHESS Roadmap and the CHESS Project.

ASX has established three key internal management committees comprised of senior executives to support the Boards and Executive Management in discharging their responsibilities by providing a forum to accountable executives for discussion and constructive challenge.

- The Management Risk Committee is chaired by the CRO and has oversight of the implementation of ASX's ERMF, risk policies and frameworks and considers general risk matters consistent with the ASX Board's risk appetite. The Management Risk Committee reports to the CS Boards, Board Risk Committee and Audit and Supervision Committee as appropriate on matters relevant to those bodies.
- The Strategic Policy and Rules Committee is chaired by the Group General Counsel and develops and approves policies, and considers updates on regulatory and government engagement and ASX rule changes. The Chair of the Strategic Policy and Rules Committee reports to the ASX Boards and Board Committees as appropriate on matters relevant to those bodies.
- The Technology Management Committee is chaired by the Chief Information Officer and has oversight of IT security matters, systems updates and incident management and considers emerging technology, operational and security risks. The Technology Management Committee reports to the ASX Boards and the Board Technology Committee as appropriate on matters relevant to those bodies.

The board sets financial and non-financial goals for the CEO at the start of the financial year, having regard to the strategic objectives set by the board. The CEO is responsible for setting goals for each executive having regard to those objectives, the Group Scorecard and the accountabilities of the executive's role.

Performance evaluation of Group Executives includes:

- The CEO makes recommendations to the People and Culture Committee on the individual performance rating of each member of the Executive Team, including those who are Executive Key Management Personnel, having regard to, among other things, the feedback from the CRO and, where applicable, feedback from CS Boards and Board Committees.
- The ASX Chair makes recommendations to the People and Culture Committee on the performance of the CEO, having regard to, among other things, the feedback from the CRO and the ASX and CS Non-Executive Directors.
- The People and Culture Committee considers the CEO's and the ASX Chair's recommendations and makes final recommendations to the CS Boards on the outcomes of the performance review processes.

Experience, skills and integrity

The members of the Executive Team have breadth and depth of experience, including but not limited to trading, clearing and settlement business, banking, technology, operations, risk management and regulation. The detailed profiles of the Executive Team are published on ASX's website.

ASX undertakes comprehensive reference checks before appointing a senior executive including education, employment, character, criminal history and bankruptcy checks.

Relevant regulatory agencies are notified of appointments.

Key consideration 6

The board should establish a clear, documented risk management framework that includes the FMI'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.

Risk management framework

The ASX Limited Board has delegated the Board Risk Committee to review the ASX risk management framework for identifying, monitoring and managing significant business risks across the ASX and consider whether the risk management framework and internal controls effectively identify areas of potential or material risk.

ASX's risk appetite statement is a central component of ASX's risk management framework and describes the risk types encountered in ASX's business. Risk tolerance levels are expressed through Board level key risk indicators and organisational key risk indicators are cascaded throughout ASX to assist employees in their day-to-day management of risk. This helps ensure the whole organisation operates within agreed risk tolerance boundaries.

The CS Chair (or another non-ASX director in their absence) is a regular attendee at the Board Risk Committee meetings where ASX's risk strategy and appetite on an enterprise-wide level are considered and has the opportunity to provide input at those meetings. The CS Lead Executives are responsible for providing input on ASX's risk appetite.

The CS Boards review and approve the risk management framework and oversee the adequacy of internal controls, systems and processes for the management of clearing and settlement risks of the CS facility licensees. They also manage the CS Subsidiaries within ASX risk appetite and risk tolerances set by the CS Boards.

The Board Risk Committee assists the CS Boards to fulfil its oversight responsibilities in respect to clearing and settlement risks and it reports to the CS Boards on matters that may impact on CS operations.

Dedicated Enterprise Risk and Compliance and Clearing Risk functions are responsible for establishing and maintaining formal risk frameworks, policies and minimum standards, and support the Management Risk Committee and Board Risk Committee. These functions report to the CRO, who in turn reports to the CEO.

The ERMF has been developed with reference to leading practice global risk management standards. See Principles 3 and 17 for further details.

Risk profiles are formally self-assessed annually as part of an enterprise-wide risk self-assessment program focusing on risks and controls within each business unit. Review of risk and controls is also provided by each line of business as part of quarterly risk working groups. Risk profiles are also reviewed and updated in the event of restructure, process adjustment and/or other material change to a business area.

ASX has a Crisis Management Team that is in place to manage a crisis, with supporting documentation and regular fire drills to review plans and procedures to ensure ASX's response to and management of a crisis is well coordinated and effective.

Risk management function

Enterprise Risk and Compliance is an independent function responsible for establishing and maintaining a formal framework, and appropriate training aimed at improving risk management and promoting common risk terminology and concepts applicable across ASX.

Enterprise Risk and Compliance acts in a second line assurance and advisory role, working with management to ensure the business has appropriately identified, measured, and managed risk within its risk appetite.

Internal audit function

The General Manager Internal Audit reports to the Chair of the Audit and Supervision Committee, the Chief Financial Officer, for administrative purposes, and has direct access to the ASX CS Boards.

Through performing various assurance activities, Internal Audit provide objective confirmation that the ERMF continues to be designed and operating effectively. The responsibilities and authority of the Internal Audit function are contained in the Internal Audit Charter which is published on ASX's website.

Internal Audit is authorised to have unrestricted access to all functions' records, property and personnel and the General Manager Internal Audit is authorised to:

- allocate resources, set frequencies, select areas of focus, determine scopes of work and apply the techniques required to accomplish audit objectives; and
- engage specialist resources (internal and external) to supplement the skills of the internal audit function as required to fulfil the requirements of the audit plan

Key consideration 7

The board should ensure that the FMI'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 Stakeholder Charter. ASX's Stakeholder Charter:

- represents ASX's commitment to develop genuine engagement and foster strong partnerships within the financial community;
- sets out the key principles that underpin ASX's approach to stakeholder engagement;
- identifies key stakeholders and communicates how ASX engages with each group; and
- promotes open and transparent communication, through collaborative relationships with all ASX stakeholders, customers, partners, associations, regulators, government, the investment community, media and ASX employees.

ASX's key principles for stakeholder engagement include being:

- transparent and accountable;
- consultative and balanced; and
- proactive and future focused.

Consultation processes include operational arrangements, risk controls and default management rules and procedures. Details of all public consultation and non-confidential submissions received are published on ASX's website.

The Business Committee and Advisory Group (see key consideration 2) provide stakeholder input to the Boards of ASX Clear and ASX Settlement on cash equities clearing and settlement services and associated infrastructure.

ASX also seeks participant input into the design, operation and development of Austraclear through an Austraclear User Group.

Disclosure

ASX publishes its Annual Reports, which describes to investors its business objectives, financial statements and strategic direction. ASX also releases its financial results on a half yearly basis.

3

Principle 3: Framework for the comprehensive management of risks

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

Key consideration 1

An FMI 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 FMI. Risk management frameworks should be subject to periodic review.

Risks faced by ASX's SSFs are considered under seven key risk categories with the objective of providing a common risk lexicon to support business risk identification and assessment, and to facilitate organisation-wide monitoring, reporting and analysis of risks. The seven risk categories are strategic, operational, technology, counterparty, financial, regulatory and legal, and reputation.

ASX's ERMF has been developed with reference to leading practice global risk management standards, in particular ISO 31000:2018. It describes elements that help enable ASX to manage its key risks and supports assurance that ASX's risk management and internal control environment is designed appropriately and operating effectively. Core components include risk profiling and assessment, control testing, key risk indicators, fraud control, incident management, risk issue management, crisis management and business continuity and second line oversight of project risk management. These core elements are complemented by specific risk management processes, minimum standards and practices including establishing the context, identification and assessment, treatment, monitoring, reporting and communicating risk.

The ERMF is reviewed on an annual basis with material changes approved by the Board Risk Committee. Review of the operating effectiveness of the ERMF is also performed every three years by an independent expert.

Management and monitoring of risk profiles, risk issues, key risk indicators and control improvement action plans is supported by ASX's GRC application. This application is the core repository for all risks, issues, controls and action plans across ASX, including risks and controls specifically related to the integrity, resilience, reliability and security of ASX's SSFs. The GRC application enables both a line of business and aggregated overview of risk and control profiles across the ASX business and supports and informs quarterly risk reporting information to the Board Risk Committee and CS Boards.

ASX's CMF, which aligns with the ISO 37301:2001 compliance management systems, provides processes, systems and tools to facilitate effective regulatory risk management and compliance with obligations applicable to ASX's SSFs. The CMF is reviewed on an annual basis with material changes approved by the Board Risk Committee. Review of the operating effectiveness of the CMF is also performed every three years by an independent expert.

ASX's Settlement Risk Policy Framework sets out a comprehensive set of settlement policies to support the risk management approach of ASX's SSFs. Settlement policies and standards are documented and reviewed biennially, and material changes are approved by the CS Boards.

ASX has a Policy Design and Review Handbook, which sets out governance arrangements for ASX policies and associated procedures and systems, including a policy cycle review process.

The ERMF, CMF and other policies and procedures are the subject of internal and external review. ASX's Internal Audit department routinely monitors compliance with operational frameworks and policies, reporting to the Audit and Supervision Committee on a quarterly basis. Audit findings may prompt a review of a framework and/or policy, which would be conducted in consultation with key stakeholders. Internal Audit includes SSF activities in its risk based audit plan. The Internal Audit Charter is published on ASX's website.

Key consideration 2

An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.

Penalties for non-compliance with ASX's SSFs Operating Rules and Regulations may be applied.

ASX Settlement

Participants are incentivised to manage their settlement risks through:

- fees for failed settlements; and
- performance bonds (Settlement Bonds for settlement participants that are not clearing participants, and Sponsorship Bonds for sponsoring participants that are not trading or clearing participants).

Austraclear

Two messaging alternatives (SWIFT and HTHL) are provided to enable participants to achieve straight through processing of settlement transactions that must be matched bilaterally. This helps mitigate participants' operational and settlement risk through the reduction or elimination of manual processing.

Key consideration 3

An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers and service providers) as a result of interdependencies and develop appropriate risk management tools to address these risks.

Periodic assessments of material risks posed by external entities to ASX's SSFs are performed, and include credit, liquidity, general and operational risk management, business continuity arrangements and recovery planning.

Review of material risks posed by external entities to ASX's SSFs are encompassed under the enterprise-wide annual risk self-assessment program. Review of risks and controls is also performed as part of quarterly line of business risk working groups, and risk profiles are also reviewed and updated in the event of any organisational restructure, process adjustment and/or other material change to a business area. Further, the risk self-assessment program, which is part of the ERMF is subject to internal review.

Key consideration 4

An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.

ASX's BCMF has clearly stated objectives and is supported by a range of other internal documents to support ASX's SSFs rapid recovery and timely resumption of critical operations following a disruption to a service. Examples of these internal documents include the BCM Exercise Framework, BCM Scenario Risk Assessment, ASX Crisis Management Plan and Incident Management Framework. ASX business continuity arrangements are underpinned by permanent dual-site operational teams in place with sufficient resources, capabilities and functionalities and appropriate staffing arrangements at both the primary and alternate operations sites. The primary and backup data centres and are geographically separated. These arrangements enable ASX's SSFs to operate under a broad range of circumstances including wide-scale disruptions.

ASX's SSFs conduct periodic business impact analysis and maintain business continuity plans detailing the operational responses to events that pose a significant risk of disrupting operations. The plans identify and address events such as technology failure, employee unavailability, pandemic, cyber-attack, greater CBD inaccessibility and primary site and systems unusable. These plans are reviewed annually.

ASX has an Orderly Wind-Down Plan that applies to both SSFs and is reviewed annually.

ASX's SSFs regularly test their business continuity arrangements consistent with a BCM Exercise Framework that sets out exercise requirements. Dual site operational teams across the primary and alternate secondary operations sites effectively test backup operational processes on a continuous basis. Live tests, where clearing and settlement services are provided in real time from the alternate backup data centre site, are conducted annually.

In addition to the BCMF, ASX's SSFs maintain a Recovery Plan which sets out how ASX's SSFs plan to ensure they continue to provide their critical operations in recovery situations. The Recovery Plan is reviewed on an annual basis and includes:

Responses for ASX's SSFs

- An assessment of the CS facility recovery tools against the desirable characteristics of recovery tools set out in the CPMI-IOSCO Recovery of Financial Market Infrastructures guidance.
- An assessment of the operational readiness to actually implement the Recovery Plan/tools.
- An assessment of ASX's SSFs ability to meet its replenishment obligations under the Recovery Rules.

4

Principle 4: Credit risk

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

Key consideration 1

An FMI 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 exposure may arise from current exposures, potential future exposures, or both.

Not applicable for ASX's SSFs. ASX's SSFs do not enter into arrangements with participants that give rise to credit risk as they do not act as direct counterparty to transactions that settle on ASX's SSFs.

Key consideration 2

An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk management tools to control these risks.

Not applicable for ASX's SSFs.

Key consideration 3

A securities settlement system 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 system in which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing and settlement processes, such an FMI 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 for ASX's SSFs.

Key consideration 7

An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.

Not applicable for ASX's SSFs.

5

Principle 5: Collateral

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

Key consideration 1

An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity and market risks.

ASX's SSFs do not act as direct or indirect counterparty to the settlement of transactions between participants of the facility and therefore their activities do not result in credit exposures for ASX's SSFs which need to be collateralised as a risk mitigant.

Key consideration 2

An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.

Not applicable for ASX's SSFs. See key consideration 1 for further detail.

Key consideration 3

In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.

Not applicable for ASX's SSFs. See key consideration 1 for further detail.

Key consideration 4

An FMI 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 for ASX's SSFs. See key consideration 1 for further detail.

Key consideration 5

An FMI 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 for ASX's SSFs. See key consideration 1 for further detail.

Key consideration 6

An FMI should use a collateral management system that is well designed and operationally flexible.

Not applicable for ASX's SSFs. See key consideration 1 for further detail.

6

Principle 6: Margin

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

Not applicable for ASX's SSFs.

7

Principle 7: Liquidity risk

An FMI should effectively measure, monitor and manage its liquidity risk. An FMI 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 FMI in extreme but plausible market conditions.

Key consideration 1

An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers and other entities.

ASX's SSFs do not act as direct or indirect counterparty to the settlement of transactions between participants of the facility.

All AUD transactions are settled DvP across participants banks' ESAs at the central bank, where the payment leg settles irrevocably, and prior to the settlement of securities. For ASX Settlement, there are two exceptions to this (see SSF Principle 9, key consideration 1).

USD and RMB cash payments are settled in Austraclear using commercial bank money.

As settlements are completed DvP, liquidity risks in the operation of each SSF does not arise.

Key consideration 2

An FMI 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.

As settlements are completed DvP, intraday liquidity requirements to be met by each SSF does not arise. See key consideration 1.

Key consideration 3

A payment system or securities settlement system, 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.

As settlements are completed DvP, intraday liquidity requirements to be met by each SSF does not arise. See key consideration 1.

Key consideration 5

For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI 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.

This key consideration is not applicable. See key consideration 1.

Key consideration 6

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

This key consideration is not applicable. See key consideration 1.

Key consideration 7

An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.

This key consideration is not applicable. See key consideration 1.

Key consideration 8

An FMI with access to central bank accounts, payment services or securities services should use these services, where practical, to enhance its management of liquidity risk.

This key consideration is not applicable. See key consideration 1.

Key consideration 9

An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision-makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.

This key consideration is not applicable. See key consideration 1.

Key consideration 10

An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI'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.

In the event of a default of an ASX Settlement participant, (where the DvP settlement takes place in one market level batch per day), ASX Settlement will seek to remove the defaulting participants obligations and progress with the settlement of all non-related obligations for other ASX Settlement participants.

As settlements are completed DvP, intraday liquidity to manage deferred settlement requirements do not arise in the ordinary course of business. See key consideration 1.

8

Principle 8: Settlement finality

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

Key consideration 1

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

Settlement finality is achieved at the point defined in the Operating Rules of each of ASX's SSFs, as published on ASX's website. Refer to:

- **ASX Settlement Operating Rules:** Section 10 - the irrevocable discharge or satisfaction of delivery/payment obligations and entitlements under Batch Instructions included in Batch Settlement.
- **Austraclear Regulations:** Regulations 14, 15, 16 and 29 - in the case of transactions involving an AUD cash payment, the cash element of the transaction is settled and may not be unwound when Austraclear receives a message from RITS that the cash transfer has been made. Upon receipt of the RITS confirmation, Austraclear will update the cash records of the participants (Section 15). In the case of transactions involving the transfer of a security, the security element of a transaction is final and may not be unwound when Austraclear has made the appropriate amendments to the security records of the participants involved in the transaction. For a transaction with an AUD cash element, this will only occur once Austraclear receives a message from RITS that the cash transfer has been made (Regulation 14.3). In the case of transactions involving a foreign currency cash payment (currently USD or Renminbi (RMB)), the cash element of the transaction is settled and may not be unwound once the cash transaction has passed any requisite testing of the paying participant's foreign currency cash record in the Austraclear System (Regulation 29.1). Participants receive a claim on the foreign currency settlement bank upon updating their foreign currency cash record.

Key consideration 2

An FMI 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 system should consider adopting RTGS or multiple-batch processing during the settlement day.

ASX Settlement: Settlement of equities trades in CHESS occurs in a single daily multilateral net batch (DvP Model 3), with interbank cash obligations settled across ESAs in RITS intraday. ASX Settlement Operating Rule Section 10 requires settlement of eligible batch instructions on the designated business day, ensuring completion by end of value date.

Austraclear: Cash and securities transactions are settled on a delivery-versus-payment (DvP Model 1) basis in real time. Once matched instructions are settled, they are final and irrevocable. Cash transfers are also settled on an RTGS basis. While settlement may be pending intraday due to insufficient funds or securities, any instructions that remain unsettled at the end of the day are considered failed trades. These failed trades remain failed ensuring no obligations remain unsettled past value date.

Key consideration 3

An FMI should clearly define the point after which unsettled payments, transfer instructions or other obligations may not be revoked by a participant.

The ASX SSF Operating Rules define the point after which payment or transfer instructions cannot be revoked.

ASX Settlement

- The timing for scheduling, change and removal of Batch Instructions from Batch Settlement on a day is prescribed in Section 10 of the ASX Settlement Operating Rules (Rules 10.5 and 10.9).
- Extensions to settlement cut-off times in ASX Settlement are permitted on an exceptional basis and must be justified by the circumstances of the individual case (ASX Settlement Rule 1.12.1).

Responses for ASX's SSFs

Austraclear

- 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.
- Payments pending settlements in the RTGS queue can be recalled. These transactions remain in the queue as they await cash settlement in the RITS ESA account.
- Settlement recall requests must meet Austraclear and RITS cut-off times unless an extension is granted.
- Extensions to settlement cut-off times in Austraclear are permitted on an exceptional basis and must be justified by the circumstances of the individual case (Austraclear Regulation 1.10). Some extensions in Austraclear require the RBA's approval due to the implications for RITS.

9

Principle 9: Money settlements

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

Key consideration 1

An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.

ASX Settlement: All money settlements occur in AUD. The vast majority of AUD settlements are conducted in central bank money using ESA accounts in RITS for ASX Settlement transactions settled in CHES. There are two exceptions to this:

- De minimis amounts which are injected into the CHES batch settlements for rounding purposes, which occur from an account held at a major highly rated Australian bank.
- In the event of a participant default, the same account would be used to contribute funds to ensure settlement of positions relating to the defaulting participant. Work is underway to assess the feasibility of removing this dependency and using ASX's ESA held at the RBA if required.

Austraclear: All AUD money settlements occur through central bank money. Austraclear settles USD and RMB cash payments using commercial bank money.

Key consideration 2

If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.

All AUD settlements for ASX's SSFs are completed in central bank money, except for ASX Settlement as outlined in key consideration 1.

Austraclear

Cash transactions settle in USD and RMB. USD is a global reserve currency with little or no credit and liquidity risk. RMB is included in the International Monetary Fund (IMF) special-drawing-rights basket of currencies, comprising USD, GBP, EUR, RMB and JPY, and has little or no credit or liquidity risk.

Key consideration 3

If an FMI settles in commercial bank money, it should monitor, manage and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, an FMI 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. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.

ASX Settlement: does not settle in commercial bank money, except as outlined in key consideration 1. For the de minimis funds injected for rounding purposes, use of commercial bank monies is de minimis, and ASX Settlement is assessing the feasibility of removing reliance on possible use of commercial bank money for default management purposes.

Austraclear: the criteria for foreign currency settlement banks are set out in Austraclear Regulations 29.3 and 29.4, which require consideration of prudential supervision, capital adequacy, operational reliability, business continuity and reporting obligations. These requirements are ongoing, and banks must continue to satisfy them to remain eligible as settlement banks.

In considering whether to approve an entity as a foreign currency settlement bank, matters including the regulation and supervision, creditworthiness, capitalisation, access to liquidity and organisational competencies of the applicant are assessed. These requirements are ongoing. Particular organisational competencies include prescribed operating hours, system reliability, system capacity, outage reporting, business continuity, communication links, notifications and outsourcing. In addition, the admission requirements also include the obligation for the foreign currency settlement bank to provide prescribed risk disclosures to parties that hold a foreign currency account.

Key consideration 4

If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.

ASX's SSFs do not settle money on their own accounts. Each processes payments either in central bank or commercial bank accounts in the name of participants.

Key consideration 5

An FMI'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 FMI and its participants to manage credit and liquidity risks.

ASX Settlement: all AUD settlements are completed in central bank money, except as outlined in key consideration 1. Terms and Conditions set out the manner in which the commercial bank accounts operate.

Austraclear: only applicable to cash transactions in a foreign currency within Austraclear. The agreement between Austraclear, each foreign currency settlement bank and participants with respect to the completion of settlement of foreign currency transactions is set out in Austraclear Regulation 29.4. Foreign currency transactions settle within the Austraclear System and Part 2 of the PSNA protects the finality of these transactions from the external administration of a participant. The foreign currency settlement bank's administrative step to update the corresponding accounts in its own books and records is not a condition to the completion of settlement in the Austraclear System, or the foreign currency settlement bank incurring a debt to the relevant participant.

10

Principle 10: Physical deliveries

An FMI 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.

Not applicable for ASX's SSFs.

11

Principle 11: Central securities depositories

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

Key consideration 1

A CSD 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.

ASX Settlement and Austraclear maintain comprehensive rules, procedures and controls, supported by robust accounting practices, to safeguard the rights of securities issuers and holders, and to maintain the integrity of securities records. These frameworks ensure that securities cannot be created or deleted outside of authorised processes and are subject to regular reconciliation, internal control reviews and independent external audit. Collectively, these arrangements promote the accuracy, completeness and legal certainty of securities holdings recorded within the facilities.

ASX Settlement

- Under the ASX Settlement Operating Rules, title to dematerialised securities recorded in CHESS rests with the registered holder. The CHESS subregister serves as the definitive record of legal ownership, and the transfer of securities is governed by ASX Settlement Operating Rules Sections 9 and 10, which establish the framework for trade matching, transfer and settlement on a DvP basis.
- Creditors of ASX Settlement have no claim over securities in CHESS, as the facility itself has no title to those securities (ASX Settlement Operating Rules Section 8).

Austraclear

- Procedures for acceptance of non-paper securities and dematerialised securities are set out in Austraclear Regulations 8, 8A and 8B, requiring issuer authorisation and system-controlled validation. Securities are settled in real time via a DvP mechanism, which matches buyer and seller instructions so that payment and securities are exchanged simultaneously. Settlement is final and irrevocable, with title passing from seller to buyer at the point of settlement.
- The Austraclear Regulations ensure that, to the extent permitted by law, creditors of Austraclear Limited have no claim over securities deposited by participants. For non-paper securities, Austraclear acts as a nominee for the owners, and for dematerialised securities, Austraclear does not hold title.

Key consideration 2

A CSD should prohibit overdrafts and debit balances in securities accounts.

ASX Settlement and Austraclear do not permit security holdings records to be in overdraft, or carry debit balances in their securities accounts.

Key consideration 3

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

All securities eligible for settlement in ASX Settlement and Austraclear are dematerialised, and all transactions are processed electronically by book-entry. While the Austraclear Regulations allow for settlement of paper securities, in practice paper securities are no longer accepted in Austraclear.

Key consideration 4

A CSD should protect assets against custody risk through appropriate rules and procedures consistent with its legal framework.

ASX Settlement and Austraclear protect assets against custody risk in a number of ways.

ASX's SSF's rules specify that creditors of ASX Settlement and Austraclear have no claim over securities registered in the ASX SSFs:

- **ASX Settlement** - as specified in ASX Settlement Operating Rule section 8, legal title to financial products recorded in CHESS is retained by the 'Holder' – the person registered as the legal owner of financial products in a CHESS holding. CHESS operates as a dematerialised system, meaning securities are held and transferred electronically without the need for physical certificates. The creditors of ASX Settlement have no claim over securities registered in ASX Settlement as ASX Settlement does not hold any legal or beneficial interest in the securities recorded in CHESS.
- **Austraclear** Regulation 8 establishes that Austraclear acts as nominee for deposited non-paper securities, holding them on behalf of the owners and managing them strictly to the owners' instructions. The regulations also confirm that beneficial ownership remains with the participant, and that a transferring participant gives certain warranties about title and value of securities it transfers in the Austraclear System.
- **Austraclear** Regulation section 8A and 8B confirm that when a participant deposits dematerialised securities into the Austraclear System, they are recognised as the owner and have the legal right to transfer those securities with clear, unencumbered title.

In addition, a framework of controls limit the risk of loss from negligence, misuse of assets, fraud, poor administration or inadequate recordkeeping. These include regular reporting and reconciliations, authorised signatories and verification, account set-up controls, dual authorisations, leave policies and regular external audits.

Key consideration 5

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

ASX Settlement

ASX Settlement does not hold assets in its name within the CSD, ensuring segregation between its own assets and the securities of its participants.

ASX Settlement segregates the securities of their participants and participant's customers by maintaining individual CHESS Holdings for each Holder on the CHESS subregister. Each holder is assigned a unique Holder Identification Number (HIN), which links to an individual CHESS Holding recorded in the customers' legal name on the CHESS subregister.

Austraclear

Austraclear does not hold assets of its own within the CSD, ensuring segregation between its own assets and the securities of its participants.

Austraclear ensures segregation among the securities of participants by establishing a dedicated and distinct house account for each Austraclear participant. This structure keeps each participant's assets separate and secure, with all deposited or transacted securities recorded in the participant's own house sub-account.

Austraclear supports the operational segregation of securities belonging to a participant's customers on the participant's books and facilitates the transfer of customer holdings through separate and segregated house accounts for each Austraclear participant. Austraclear also offers participants ability to create additional sub-accounts, allowing them to further segregate their clients' holdings and set up customised accounts as needed.

Key consideration 6

A CSD 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.

ASX Settlement and Austraclear do not perform any ancillary activities to the operation of their CSD function. Specifically, they do not provide a centralised securities lending facility or act as a principal in securities lending transactions.

12 Principle 12: Exchange-of-value settlement systems

If an FMI 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.

Key consideration 1

An FMI 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 FMI settles on a gross or net basis and when finality occurs.

ASX Settlement and Austraclear are exchange-of-value settlement systems.

The Operating Rules of ASX Settlement (section 10) and Austraclear (sections 14-16) embed finality provisions that ensure settlement of linked obligations only occurs on a DvP basis.

ASX Settlement uses electronic dematerialised DvP settlement (model 3) - with cash and securities obligations settled simultaneously in a single daily batch across RITS. The single multilateral net batch comprises both novated and non-novated transactions. The settlement of equity securities from delivering settlement entrepot accounts to receiving entrepot accounts will only occur after confirmation from RITS that cash has irrevocably settled across the ESAs of the paying/receiving banks. Settlement instructions that cannot be completed due to insufficient stock being available in the entrepot account are rescheduled to the following settlement day. The reschedule of settlement instructions that cannot complete takes place prior to the calculation of cash due for settlement.

Austraclear uses electronic dematerialised DvP settlement (model 1) for debt instruments, with real-time gross settlement of securities and cash occurring simultaneously for each transaction. The settlement of AUD securities in Austraclear is contingent on the irrevocable settlement of the cash across central bank ESAs such that the securities cannot be transferred until the cash settlement has been completed.

Neither ASX Settlement nor Austraclear are counterparties to transactions that settle through the settlement facilities and therefore are not exposed to principal risk.

13 Principle 13: Participant-default rules and procedures

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

Key consideration 1

An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.

The Operating Rules and Regulations of ASX's SSFs set out events constituting a participant default (both financial and operational) which is known as a non-compliance event. The powers to suspend and/or terminate a participant where a non-compliance event has occurred are also set out in Guidance Note 5 Suspension and Termination of Participants under the relevant SSF Operating Rule and Regulation.

ASX's SSF Operating Rules and Regulations require participants to inform ASX immediately if they become aware they are unable to comply with the Operating Rules and Regulations including when the participant is at risk of being of a non-compliance event. ASX monitor participants' compliance with obligations outlined in its Operating Rules and Regulations and have arrangements in place to expeditiously escalate any participant issues to the appropriate governance group.

The Participant Issue Response Group is responsible for coordinating the SSF's response and provides input into any decision on whether to suspend or terminate the admission of, or take other action in relation to, the participant.

ASX's SSFs have documented procedures for a participant non-compliance event, the criteria and mechanisms for suspending and terminating participants and the removal of outstanding non-CCP transactions from settlement.

Key consideration 2

An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.

ASX's SSFs' Operating Rules and Regulations require participants to inform ASX immediately if they become aware they are unable to comply with the Operating Rules and Regulations including when the participant is at risk of being in default event which is known as a non-compliance event for SSFs. ASX monitor participants' compliance with obligations outlined in its Operating Rules and Regulations and has arrangements in place (refer to key consideration 1) to expeditiously escalate any participant issues to the appropriate governance group.

ASX maintains a comprehensive process for managing a material non-compliance event in the SSFs, that may result in suspension and/or termination.

ASX maintains a comprehensive Default Management Framework allowing it to implement its default rules and procedures to deal with an event of default in a timely manner. Given ASX operates an integrated exchange, it will consider the SSFs when considering the default of a clearing participant. Refer to CCP Principle 13 (key consideration 2) for further details on this approach.

Key consideration 3

An FMI should publicly disclose key aspects of its default rules and procedures.

Default management information is published on [ASX's website](#), including:

- ASX Settlement and Austraclear Participant Default – Overview;
- Fact Sheet for Insolvency Practitioners; and
- Fact Sheet for CHESS Sponsored and Issuer Sponsored Holdings.

Responses for ASX's SSFs

The Operating Rules and Regulations of ASX's SSFs detail the powers and actions available to a SSF in the event of a default, known as a non-compliance event under the SSF Operating Rules and Regulations. The powers to suspend and/or terminate a participant from a non-compliance event are also set out in Guidance Note 5 Suspension and Termination of Participants under the relevant SSF Operating Rules and Regulations.

Further information can be found in the documentation on [ASX's website](#).

Key consideration 4

An FMI should involve its participants and other stakeholders in the testing and review of the FMI'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.

Not applicable for ASX's SSFs.

14

Principle 14: Segregation and portability

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

Not applicable for ASX's SSFs.

15 Principle 15: General business risk

An FMI 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.

Key consideration 1

An FMI 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.

General business risks at ASX refer to the risks and potential losses that arise from operations that are not related to participant default nor separately covered under credit, investment or liquidity risk. These general business risks could result in losses from poor execution of business strategy, negative cash flows or unexpected and excessively large operating expenses. General business risks can be categorised as strategic/business risks, regulatory or reputational risks, operational risks and financial risks (other than participant default risk).

ASX has robust management and control systems to identify, monitor and manage general business risks. Key risks (including general business risks) identified under the ERMF are recorded in ASX's GRC application, and are managed by the relevant risk owners and monitored using key risk indicators and suitably designed controls. There is quarterly risk reporting to the Board Risk Committee and CS Boards.

Financial risks are mitigated through the annual preparation of the five-year business plans which are reviewed and approved by the ASX Board. These business plans include financial forecasts, new business initiatives and associated risks, and capital forecasts. These forecasts are reviewed on a monthly basis and presented to the ASX Board.

In addition, ASX has in place a number of insurance policies to reduce its exposure to a broad range of risks, including professional indemnity, fraud and operational risks such as computer equipment failure.

Key consideration 2

An FMI 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 an FMI 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.

Each SSF holds liquid net assets funded by equity so that it can continue operations and services as a going concern if it incurs general business losses.

ASX's SSFs are required to maintain sufficient general business risk capital to cover operational risk, general business risk and to allow for a recovery or orderly wind-down. ASX's methodology for calculating general business risk capital is based on the RBA's Financial Stability Standards for SSFs and is aligned with the Central Securities Depositories Regulation (CSDR)². ASX's methodology for calculating general business risk capital includes the following components:

- **Operational risk capital** based on 15% of average operating income over the past three financial years (basic indicator approach).
- **Business risk capital** based on scenario analysis of potential loss incidents with minimum capital requirement of three months of operating expenses.
- **Recovery or wind-down capital** based on the potential costs to affect a recovery or orderly wind-down with minimum capital requirement of six months of operating expenses.
- **Early warning indicator capital** based on 10% of the calculated capital requirement.

² Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories, also known as CSDR.

The length of time and associated operating costs of achieving a recovery or orderly wind-down of critical operations and services is based on the Orderly Wind-Down Plan maintained by ASX for its SSFs. The plan takes into consideration the time and the associated operating costs, including the one-off costs of achieving a recovery or an orderly wind-down.

Key consideration 3

An FMI 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, an FMI 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.

ASX maintains a Recovery Plan as well as an Orderly Wind-Down Plan that has been approved by the Boards of the SSFs.

The Recovery Plan sets out how each SSF can continue to provide critical services during situations of extreme financial stress which threaten the provision of those critical services ('recovery situations'). It sets out the tools available for Management and the Boards of each SSF to consider during recovery situations when a course of recovery action is required to ensure the continued supply of critical services from the entity.

The Orderly Wind-Down Plan takes into consideration the operational and technological requirements for a wind-down of the licensed business activities. The plan assesses the time, effort and cost to separate and transfer existing technology infrastructure for the relevant business activity, customer open position and transaction migration, as well as the one-off restructuring costs that the business would incur in an orderly wind-down (redundancies, contract termination etc).

ASX's SSFs currently hold a minimum amount of capital to cover an orderly wind-down or recovery equal to six months of current operating expenses (based on a management profit and loss view of the expenses allocable to each business activity of the SSF). The sufficiency of this capital amount is determined by referencing the wind-down capital model, which provides different scenarios for impacts on cash flows and profitability during the wind-down when factoring in negative impacts to profitability, including the impact of one-off restructuring costs. The impact on cash flows and profitability is compared against the level of wind-down or restructuring capital held by the relevant SSF to ensure that the level of capital held is sufficient.

Capital designed to cover business risks and losses is held directly by the SSFs and invested in highly liquid financial assets.

Key consideration 4

Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.

The composition of the SSFs' liquid net assets primarily includes cash, negotiable certificates of deposit, semi-government discount securities, Australian Government discount securities and reverse repurchase agreements over these discount securities. All securities are issued by semi-government and government bodies and financial institutions with a minimum S&P short-term credit rating of A-1. Under the relevant investment mandate, the securities are required to have a maturity of less than 12 months (generally each portfolio duration is less than six months). The securities are all highly liquid and the SSFs test liquidity in the securities on at least an annual basis. The short duration of each investment portfolio, investment in interest rate products only and high credit quality provides protection for little or no loss of value when converting assets into cash during adverse market conditions.

Key consideration 5

An FMI 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.

ASX's SSFs have developed a non-default fund replenishment plan that has been approved by the CS Boards, and is reviewed and updated annually. The plan involves the SSFs relying on the Group Support Agreement whereby ASX Limited agrees to maintain sufficient capital held as liquid net assets that can be made available to each SSF to meet their obligations to hold sufficient capital to maintain operations and services in the event of general operational and business losses and investment losses (excluding participant default, credit risk or liquidity risk).

16

Principle 16: Custody and investment risks

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

Key consideration 1

An FMI 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.

Neither of ASX's SSFs hold clearing participant assets.

Both of ASX's SSFs hold funds from issued capital and retained earnings that are invested in cash or other high quality liquid assets in accordance with their respective Investment Mandates.

Key consideration 2

An FMI should have prompt access to its assets and the assets provided by participants, when required.

A custodian is not used to hold ASX's SSFs' assets.

Both of ASX's SSFs funds are invested in AUD denominated cash, Bank Bills and Negotiable Certificates of Deposits in accordance with their respective Investment Mandates.

The Investment Mandate identifies a maximum Portfolio Weighted Average Maturity and a trigger that provides early warning of the maximum average maturity being approached.

These measures contribute to ensuring that ASX's SSFs have prompt access to their assets as required.

Key consideration 3

An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.

ASX's SSFs do not use the services of external custodians.

Key consideration 4

An FMI'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.

ASX has allocated capital to each ASX SSF for the purpose of covering general business risk.

The Investment Mandates set out approved products, counterparties, and their limits and portfolio limits.

To ensure the ongoing appropriateness of the Investment Mandates, they are reviewed on an annual basis by the CS Boards.

17 Principle 17: Operational risk

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

Key consideration 1

An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures and controls to identify, monitor and manage operational risks.

ASX's SSFs adopt ASX's framework for risk management which is described in its ERMF. This outlines: the overall risk environment in the ASX Group; the fundamental risk management processes for identification and assessment, treatment, monitoring, reporting and communicating risk; as well as the risk governance structure, which summarises responsibilities for ownership and management, framework and risk appetite overview and executive management committee and Board oversight.

ASX's risk appetite statement is a central component of ASX's risk management framework and describes the risk types encountered in ASX's business, along with tolerance thresholds. Tolerance thresholds are expressed through key risk indicators that are cascaded throughout ASX to assist employees in their day-to-day management of risk. This helps ensure the whole organisation operates within agreed risk tolerance boundaries. ASX's stated tolerance for technology, counterparty, financial, operational, legal and regulatory risks is 'very low'.

ASX integrates commercial standards into its risk management frameworks. For example, the ERMF is assessed against the international standard ISO 31000:2018 Risk Management – Principles and Guidelines. The BCMF has been prepared with reference to the ISO International Standard on business continuity and the Business Continuity Institute's Good Practice Guidelines. The ASX Fraud Control Policy references Standards Australia's Standard on Fraud and Corruption Control.

ASX's CMF is aligned with the ISO 37301:2001 compliance management systems. It provides processes, systems and tools to facilitate effective regulatory risk management and compliance with obligations applicable to ASX's SSFs. ASX's GRC application documents risks, obligations and controls, facilitating implementation of ASX's ERMF and CMF.

The ERMF, CMF and other policies and procedures are the subject of internal and external review. ASX has a Policy Design and Review Handbook, which sets out governance arrangements for ASX policies and associated procedures and systems, including a policy cycle review process.

ASX's Change Management Policy and Process documents are reviewed and approved annually.

Key consideration 2

An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk management framework. Systems, operational policies, procedures and controls should be reviewed, audited and tested periodically and after significant changes.

The Board has formally endorsed ASX's ERMF, which assigns specific risk responsibilities across the ASX Group, including to the ASX Limited Board of Directors, the Board Risk Committee, the Management Risk Committee, Enterprise Risk and Compliance, executive management and business unit management and employees. The CS Boards oversee ASX's SSFs operational risks as per carve out in the Board Risk Committee Charter.

The Board Risk Committee Charter outlines the Committee's role in:

- Reviewing ASX's risk strategy and appetite.
- Monitoring the effectiveness of the ERMF.
- Overseeing management's implementation of risk controls.
- Receiving and tracking plans to return risks within Board-approved appetite

Responses for ASX's SSFs

The Management Risk Committee, comprising executives from across divisions, is responsible for overseeing the implementation and adequacy of enterprise risk management and risk processes to ensure risks are being managed within the board approved risk appetite.

Individual departments are responsible for: identifying business-specific risks; applying controls; maintaining risk management systems; testing 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 it on a periodic basis and updating as appropriate. More frequent reviews are undertaken where there are potential changes to technology, legal or regulatory requirements, or business drivers. The risk, issues and audit items are also reviewed and discussed quarterly at divisional Risk Working Groups.

The ERMF is reviewed annually, with material changes requiring approval by the Board Risk Committee. Every three years, the operating effectiveness of the ERMF is reviewed by an independent expert.

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 Supervision 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 also considered by external auditors as required by the scope of the audit.

ASX has an Accountability Framework, which is approved by the board. The Accountability Framework sets out the accountability map, accountability statements, reasonable steps and the reasonable steps assessment. The accountability statements in place for all ASX executives set out the allocation of responsibilities, which includes risk management, to executives across ASX's operations.

Key consideration 3

An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.

ASX's SSFs have clearly defined operational objectives in place. Monthly management reporting summarises performance against availability measures and other measures such as critical system capacity and headroom and includes a description of any incidents where an outage has occurred to a critical service. Actual capacity and performance of SSF systems is tested on a periodic basis. A required level of redundant capacity is taken into account. There are tools and controls in place that are used to monitor, review and test the capacity and performance of the systems.

Availability targets are documented and defined formally for critical services. The SSF services are required to meet a minimum availability target of 99.8% for legacy systems up to July 2014. From July 2014, all new systems, or legacy systems that have experienced a major upgrade, are required to meet a minimum availability target of 99.95% (99.9% for the Austraclear System as required under the Step-in and Service Agreement with the Reserve Bank).

The CS Boards formally endorse set tolerance levels. They receive regular reporting on system performance and incidents. The Board Risk Committee and Technology Committee also monitor enterprise-level risk metrics.

The operational reliability targets are documented in internal artefacts that define uptime requirements, maintenance windows, recovery objectives, and roles and responsibilities.

Key consideration 4

An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.

ASX's SSFs are designed to have scalable capacity which is maintained at levels to support increasing volumes and service availability objectives.

Scalable capacity is maintained at levels to support increasing volumes and service availability objectives. The internal metric for target capacity is to maintain 100% over peak recorded daily measured monthly, rolling three and 24 month and historical peak volumes. Review of current and projected capacity requirements are triggered when a service does not meet 100% available headroom, or when a significant/environmental change to the service.

ASX's SSFs have real time monitoring as well as reporting in place to identify capacity performance which may have caused disruptions or may cause issues in the future and action will be taken to investigate and where necessary actions put in place to increase headroom.

Key consideration 5

An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.

ASX has a range of security policies and standards, designed to provide guidance to employees and safeguard the ASX technology environment against threats which may disable or affect its effectiveness (including cyber security threats). Policies, standards and guidelines cover user access and administration, infrastructure builds, default security requirements, firewalls, encryption, virus protection, passwords, removable media, email, internet and other risks.

ASX has implemented physical security measures in accordance with ISO27001 standards and other frameworks that minimise or remove the risk of harm to people, and information and physical asset resources being made inoperable or inaccessible, or being accessed, used or removed without proper authorisation.

ASX performs regular threat and vulnerability reviews of our critical systems, using third-party experts.

Key consideration 6

An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide- scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.

BCM is a key component of ASX's ERMF and includes the following key elements: crisis management; business continuity; business resumption; exercise and awareness. It encompasses the analysis and arrangements in place to support continuation and/or timely resumption of business activities and services.

ASX business continuity arrangements are underpinned by a permanent three site dual operations model with dual-site technology and dual site split team operations in place. There are sufficient resources, capabilities and functionalities and appropriate staffing arrangements at both the primary and alternate operations sites (including the use of remote working arrangements). One operations site is located outside of the Sydney CBD. The primary and backup data centres are both located outside of the CBD and are geographically separated.

ASX's SSFs conduct business impact analysis' and maintain business continuity plans detailing the operational responses to a disruption of core service delivery. The plans identify and address events that pose a significant risk of disrupting core services' operations, for example technology failure, employee unavailability, pandemic, cyber-attack, greater CBD inaccessibility and primary site and systems unusable. The business impact analysis and plans are reviewed annually.

ASX has a Crisis Management Framework, Incident Management Framework and IT Incident Management Process in place.

ASX's business continuity arrangements are designed to achieve failover to the backup site data centre within two hours and to ensure there is zero or near zero data loss. Front-end servers handling communications with participants are configured to provide automatic failover across sites.

ASX has a comprehensive exercise framework and regularly tests its business continuity arrangements. Dual site operational teams across the primary and alternate operations sites effectively test backup operational capabilities on a continuous basis. Live tests, where clearing and settlement services are provided in real time from the alternate backup data centre site, are conducted annually. Restoration from backup tests is also conducted on an annual basis.

Austraclear has alternative arrangements in place (for example, manual paper-based procedures) to allow for the processing of time-critical transactions in extreme circumstances, which have been tested and agreed with the RBA.

Key consideration 7

An FMI should identify, monitor and manage the risks that key participants, other FMIs and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor and manage the risks its operations might pose to other FMIs.

ASX's SSFs have identified risk that key participants, other FMIs and key third party providers pose to and from its operations they pose to external parties and vice-versa. The SSFs admission requirements are designed to limit the risks that the SSFs face including tiered business continuity arrangements depending upon the volume of activity, financial requirements as well as operational, resource and technological requirements.

Responses for ASX's SSFs

ASX has developed a Supplier Lifecycle Policy and Standard which sets the framework and processes for how supplier risk is assessed (based on criticality) and managed. Criticality is assessed at supplier arrangement level at the outset of the arrangement, reviewed periodically, and managed on an ongoing basis based on supplier tier.

The supplier's tier is identified by a criticality assessment which considers if the supplier's service supports ASX license obligations or if an outage would cause a significant BCP event, and prescribes enhanced governance protocols over such suppliers (for example, risk questionnaires, financial due diligence, BCP arrangements, cyber protocols as well as periodic supplier governance meetings with a defined agenda emphasising risk and performance aspects of the relationship).

18 Principle 18: Access and participation requirements

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

Key consideration 1

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

Requirements for participation in ASX Settlement and Austraclear are principle based and are designed to ensure that all participants have sufficient resources (financial, technical and human) and processes (supervision, compliance, risk management, business continuity and disaster recover) to meet their obligations. ASX has published its articulation of what it means to provide its clearing and settlement services in a 'fair and effective' way in a document entitled [Fair and Effective Clearing and Settlement Facilities](#).

Information regarding participation options is available on ASX's website for [ASX Settlement](#) and [Austraclear](#). Details on the requirements for admission are available via [Participant Application Kit](#), and include risk-related participant requirements.

Relevant Operating Rule and Regulations and Guidance Notes relating to admission can be found on [ASX's website](#), see:

- ASX Settlement Operating Rules [Section 4: Participation in the Settlement Facility](#);
- ASX Settlement Operating Rules [Section 6: Rights and Obligations of Participants](#);
- ASX Settlement [Guidance Note 1: Admission as a Participant](#);
- ASX Settlement [Guidance Note 14: Specialist Settlement Participants](#); and
- Austraclear [Regulations 2-5](#).

In considering the balance between fair and open access and management of systemic risk, ASX monitors a number of indicators for participants, including business continuity commensurate with the nature and scale of the participants activity, rather than relying solely on pre-set admission criteria.

Key consideration 2

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

Reviews of participant admission, access restrictions and eligibility requirements are undertaken as needed and take into consideration the market conditions and regulatory requirements. Any material changes to the Operating Rules will be consulted on and subject to regulatory approvals to ensure they are fair.

Admission requirements are principle based with guidance issued around expectations and evidence requirements to demonstrate the capabilities to become a participant.

ASX offers different classes of participation to participants which will take into account their needs, activities and requirements. Information about the range of participation choices are published on ASX's website for [ASX Settlement](#) and [Austraclear](#).

Key consideration 3

An FMI 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.

Relevant Operating Rules and Regulations require participants to comply with the admission requirements on an ongoing basis and include notification requirements for participants to advise of changes to their businesses which will be assessed to ensure ongoing compliance with the admission criteria.

Responses for ASX's SSFs

The Relevant Operating Rules and Regulations also permit conditions to be imposed on participants as a way of managing a change in the profile of the participant which may limit the exposures the participant can take or notification requirements.

ASX's Participants Compliance team conducts risk-based thematic compliance reviews to monitor participants' compliance with the relevant Operating Rules, with the following document setting out how [Monitoring and Enforcing Compliance with ASX's Operating Rules](#) is undertaken.

Relevant Operating Rule and Regulation oversight and Guidance Notes can be found on [ASX's website](#), refer to:

- ASX Settlement: [Section 3: Functions, Powers, Rights and Obligations of ASX Settlement](#);
- ASX Settlement: [Section 12](#);
- ASX Settlement: [Guidance Note 5](#): Suspension and Termination of Participants;
- Austraclear: [Regulation 6](#); and
- Austraclear: [Guidance Note 5](#): Suspension and Termination of Participants.

19 Principle 19: Tiered participation arrangements

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

Key consideration 1

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

Direct participants (settlement participants) settle directly through the SSF, while indirect participants (clients of the direct participant) settle through their direct participants.

ASX's SSF Tiered Participation Policy establishes a framework for identifying, monitoring and managing risks arising from these arrangements.

ASX has the right, under its Operating Rules and Regulations, to request client information enabling the SSF to identify clients that may pose risk to the settlement participant and the SSF.

Where a participant has a settlement failure in ASX Settlement, this is monitored, and trends are investigated (including establishing client contribution). This monitoring facilitates the SSFs identification of potential problematic clients, for example a long-term trend of failure may indicate systematic issues with that client.

The nature of tiered participation risks for the SSFs are considerably less complex and the materiality lower than that of the CCPs:

- **Austraclear:** Every transaction is settled on a bilateral DvP basis and by RTGS. In the event of a participant not meeting its obligations, the transaction will be deferred or cancelled. Therefore, the risk resides with the two counterparties to the transaction (and the associated clients). Operational resilience is considered the key risk where a participant has a large percentage of volume or activity (which is often the result of indirect participants) – inability to process these volumes may impact the efficiency of the facility. Participants with large activity (volume or value) are therefore required to connect to the secure connectivity model.
- **ASX Settlement:** Transactions are settled on a DvP model. If a settlement participant is unable to meet its delivery obligations into the CHES batch settlement, transactions can be deferred or cancelled. For non-novated transactions, the risk resides with the participants (and their client(s)) to the transaction. In the case of a clearing participant's failure to meet its funding obligation in relation to novated transactions, the risk is to the CCP and not the SSF. ASX Settlement requires Settlement Bonds (settlement participants that are not clearing participants) and Sponsorship Bonds (sponsorship participants which are not trading or clearing participants) providing protection against settlement non-compliance as well as client related issues.

Key consideration 2

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

There are no material dependencies between direct and indirect participants in ASX's SSFs.

Key consideration 3

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

ASX has a series of indicators for activity by settlement participants that consider changes in volume or activity by participants, and ASX will make enquiries of the participants where necessary. ASX also has relationships with indirect participants that generate a material share of the volume of trades executed across all cleared products.

Responses for ASX's SSFs

Tiered participation risks arise for ASX's SSFs from clients being unable to deliver their obligations to their settlement participant because of operational issues. The following acts to mitigate this risk:

- **Austraclear** - participants with large activity (volume or value) are required to connect to the secure connectivity model to mitigate operational resilience risk where a participant that has a large percentage of volume or activity (which is often the result of indirect participants) and is unable to process these volumes may impact the efficiency of the facility.
- **ASX Settlement** requires Settlement Bonds (settlement participants that are not clearing participants) and Sponsorship Bonds (sponsorship participants which are not trading or clearing participants) providing protection against settlement non-compliance as well as client related issues.

Key consideration 4

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

Given the structure of Austraclear, ASX considers there to be no material risk arising from tiered participation.

The ASX SSF Tiered Participation Policy and related standards are reviewed every two years, with material changes requiring approval by the CS Boards.

20

Principle 20: FMI links

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

Key consideration 1

Before entering into a link arrangement and on an ongoing basis once the link is established, an FMI should identify, monitor, and manage all potential sources of risk arising from the link arrangement. Link arrangements should be designed such that each FMI is able to observe the other principles in this report.

ASX Settlement has a link to ASX Clear in order to settle novated cash equity market transactions. ASX Settlement is not exposed to financial risk through this link and the operational risk inherent in the link is managed under ASX's ERMF.

Austraclear maintains six links:

- ASX Clear, for the settlement of AUD margins ASX Clear is an Austraclear participant.
- ASX Clear (Futures), for the settlement of AUD fund transfers and lodgement of AUD-denominated non-cash collateral, and for settlement of 90-day bank bill futures ASX Clear (Futures) is an Austraclear participant.
- Clearstream Banking S.A. (Clearstream), in relation to Euroentitlements managed in Austraclear. Austraclear is a participant in Clearstream's ICSD. In addition, Austraclear has links with ASX Collateral Management Services Pty Limited which has links with Clearstream, in relation to ASX's Collateral Management Service.
- LCH Limited (LCH), for the management of LCH's AUD liquidity requirements. This link does not, in practice, bring with it any binding additional requirements for Austraclear, over and above the operational risk management arrangements that Austraclear maintains for participants more broadly, since Austraclear does not have a dependency on LCH as part of the arrangement. LCH Limited is an Austraclear participant.
- Central Moneymarket Unit (CMU), a CSD operated by the Hong Kong Monetary Authority, which allows CMU participants to settle securities held in Austraclear.
- RITS, in relation to AUD payments made through Austraclear.

Austraclear and ASX Settlement do not act as bilateral counterparty. Neither are exposed to financial risk through the links specified above, and the operational risk inherent in the links is managed under ASX's ERMF.

Key consideration 2

A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the FMIs involved in the link.

All links have a well-founded legal basis supported by contractual arrangements which include, where applicable, Operating Rules that establish the framework for participation in the FMI or the provision of settlement instructions from one FMI to another. ASX conducts legal due diligence on the non-ASX Group FMI links on a periodic basis and reviews any regulatory matters that may impact those FMI links.

FMI links between the ASX entities are established in Australia.

The FMI link with LCH is established in Australia.

Austraclear's link to Clearstream's ICSD is established in Luxembourg. Austraclear's link to Clearstream's ICSD has a legal basis in a contract between the two FMIs, and Clearstream's rules which are supported by the Settlement Finality in Payment and Securities Settlement System Directive which has been implemented into Luxembourg Law. This ensures that instructions that have settled in Clearstream's settlement system (upon the successful debit and credit of the relevant accounts) are final and cannot be unwound. Securities are held in a bankruptcy remote manner from Clearstream.

Austraclear's link to LCH is governed by the Austraclear Regulations and does not expose Austraclear to legal risk different to any other Austraclear Participant.

Austraclear's link to CMU is governed by the Austraclear Regulations and does not expose Austraclear to legal risk different to any other Austraclear Participant.

Key consideration 3

Linked CSDs should measure, monitor and manage the credit and liquidity risks arising from each other. Any credit extensions between CSDs should be covered fully with high quality collateral and be subject to limits.

Not applicable, as CSD arrangements do not involve credit or liquidity requirements:

- ASX Settlement does not operate any links to other CSDs.
- Austraclear does not extend credit to Clearstream.

Key consideration 4

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

Not applicable:

- ASX Settlement does not operate any links to other CSDs.
- 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 CSDs.

Key consideration 5

An investor CSD should only establish a link with an issuer CSD if the arrangement provides a high level of protection for the rights of the investor CSD's participants.

Not applicable for ASX's SSFs.

Key consideration 6

An investor CSD that uses an intermediary to operate a link with an issuer CSD should measure, monitor and manage the additional risks (including custody, credit, legal and operational risks) arising from the use of the intermediary.

Not applicable for ASX's SSFs.

Key consideration 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.

Not applicable for ASX's SSFs.

21

Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Key consideration 1

An FMI 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.

ASX Settlement and Austraclear provide a range of participation choices to suit the market and tailor the application process and arrangements dependant on the products and markets available. Refer to [ASX's website](#) for further details.

ASX Settlement

User input is provided to the Boards of ASX Clear and ASX Settlement on the ongoing operation and development of cash equity clearing infrastructure and services by the independently chaired [ASX Business Committee](#). Additional forums have been established by the Business Committee to ensure that participant needs are being served, including the [CHESS Replacement Technical Committee](#), [CHESS Replacement working groups](#) and a [T+1 Working Group](#). Regular bilateral meetings also occur. The ASX [Cash Equities Clearing and Settlement Advisory Group](#) provides advice to the Boards of ASX Clear and ASX Settlement on strategic clearing and settlement matters.

Austraclear

User input is provided through bilateral meetings and the Austraclear User Group, composed of invited executives from Austraclear participants and chaired by an ASX appointee. The Austraclear User Group meets biannually to provide feedback on product enhancements, industry developments and participate in testing to guide Austraclear's product roadmap and operational aspects.

Key consideration 2

An FMI 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.

Each ASX SSF has in place a corporate strategy that places a high priority on the safety of the facility and promotes financial stability. Each strategy outlines the key objectives and goals, along with the current initiatives to deliver agreed goals. ASX's SSFs' strategies are refreshed annually, with progress monitored on a quarterly basis via reporting to the CS boards. The strategy documents cover areas such as risk management and business priorities.

Availability targets for critical systems have been set and are monitored and reported to relevant governance committees on a regular basis. For ASX Settlement, the minimum system availability target is 99.8% for CHESS. For Austraclear, the minimum system availability target is 99.9%, as required under Austraclear's 'Step-in and Service Agreement' with the RBA.

ASX has policies and procedures regarding risk management, for more information refer to Principle 3.

ASX Settlement publishes information regarding business priorities for CHESS through the CHESS Roadmap, published annually on ASX's website.

Key consideration 3

An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.

Business strategy documents provide for periodic reporting to the CS Boards of progress against the goals and objectives, at a minimum on a quarterly basis. The business strategy is reviewed annually.

ASX has a balanced scorecard approach, with metrics to track and measure performance of outcomes. ASX undertakes regular stakeholder engagement via the forums detailed in key consideration 1. Stakeholder feedback is obtained from stakeholder

Responses for ASX's SSFs

engagement and surveys, which provides a regular review of ASX Settlement and Austraclear's efficiency and effectiveness. Customer feedback is recorded.

For ASX Settlement - external assurance is performed on key artefacts which provides additional assurance that the SSF is operating effectively.

As part of its commitment to continuous improvement, ASX has a suite of policies and procedures to support the activities to supervise the ASX SSFs. These policies and procedures are reviewed on a regular basis.

ASX Settlement and Austraclear are subject to review by both ASIC and the RBA.

22

Principle 22: Communication procedures and standards

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

Key consideration 1

An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.

ASX Settlement

ASX Settlement uses a proprietary system, CHESSE. CHESSE is used by domestic clearing participants, settlement participants, payment providers and issuers (via Share Registries) for the secure and efficient clearing and settlement of products transacted on an AMO using proprietary format messaging protocols.

As part of ASX's project to [replace CHESSE](#), the replacement system will use global messaging standards – FIX for trade registrations and ISO 20022 for clearing, settlement and subregister functions.

Austraclear

Austraclear uses internationally accepted messaging standards (SWIFT 15022, ISO 20022 from November 2024 and cross-border payments and reporting plus (CBPR+)), in addition to a proprietary Host to Host file based STP mechanism and the Austraclear Graphical User Interface.

23

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

An FMI 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 FMI. All relevant rules and key procedures should be publicly disclosed.

Key consideration 1

An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.

ASX's SSFs' Operating Rules and Regulations and procedures, including any amendments are disclosed to participants and published on ASX's [website](#). ASX will publish a market notice to participants of changes to its rules and procedures and include a marked-up version of those changes in the market notice.

Key policies and procedures such as application forms and user guides are disclosed via ASX's website.

ASX conducts a review of the CS facilities' rules and procedures on a five-year cycle, to consider any changes that mitigate systemic risk or are otherwise desirable, address stakeholder feedback and replace redundant or inconsistent rules and procedures. This helps to ensure that the rules and procedures remain clear and comprehensive. ASX's SSFs also take in feedback as part of engagement with participants as well as where rules are investigated and there does not appear to be clarity or enforceability.

Key consideration 2

An FMI should disclose clear descriptions of the system's design and operations, as well as the FMI's and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.

Details of all systems' design and operations can be found [online](#) via the ASX website.

Rights, obligations and benefits to participants is available via ASX's website:

- [ASX Settlement](#); and
- [Austraclear](#).

The rights and obligations of participants are set out in the rules and procedure guidelines of the ASX SSFs which are published on ASX's [website](#).

Key consideration 3

An FMI should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.

A Participant Application Kit is available on ASX's [website](#) for applicants, which provides them with key forms and Guidance Notes about the requirements for admission as a participant. The rules and procedures and additional participant education material are also available on ASX's website.

Consultation papers are provided as part of [public consultations](#) conducted on amendments to rules and procedures (among other things).

Education webinars and online modules are available [online](#).

Responses for ASX's SSFs

New ASX Settlement participants are required to complete an operational readiness assessment prior to admission and ASX's Participants Compliance team will undertake a detailed review of a number of the applicants' key processes as part of the onboarding process to ensure the applicant understands their obligations under ASX's Operating Rules.

ASX's Participants Compliance team, as part of its ongoing participant engagement and review program of work, will assess what education or guidance is required and will issue that to participants. Participants have an adviser who can assist them with questions or advise on the application of the rules.

If it becomes apparent that a participant does not have the expected level of understanding of a particular element of the settlement process, the operations team will provide additional training. Where the participant appears to lack sufficient understanding of the obligations and rules, ASX's Participants Compliance team will investigate a non-compliance event and may refer the matter to ASX's Enforcement team.

Key consideration 4

An FMI should publicly disclose its fees at the level of the individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.

ASX Settlement

ASX's Clearing and Settlement schedule of fees is published on ASX's [website](#).

On 1 July 2025, ASX introduced a [Cash Equities Clearing, Settlement and Issuer Services Pricing Policy](#). The process related to amending the fee schedules is outlined in the Cash Equities Clearing, Settlement and Issuer Services Pricing Policy specifically the occurrence of a 'trigger event'. In the event of any fee changes, ASX would consult with participants as outlined in the policy.

Austraclear

Austraclear's schedule of fees is published on ASX's [website](#). Any fee changes are communicated to participants via market notice generally two to three months in advance of the effective date.

Key consideration 5

An FMI should complete regularly and disclose publicly responses to the CPMI-IOSCO Disclosure Framework for Financial Market Infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.

The CPMI-IOSCO Disclosure Framework for Financial Market Infrastructures is updated, at a minimum, every two years [here](#).

ASX publishes a monthly group activity report which includes data on transaction volumes and values. In addition for ASX Settlement, quarterly operational performance data for CHESS is published on ASX's [website](#).

24

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.

Not applicable for ASX's SSFs.

5. List of publicly available resources

Links are included throughout this document as applicable. See www.asx.com.au for further information.

Appendix I

Acronyms used throughout this document:

ABN	Australian Business Number
ACCC	Australian Competition and Consumer Commission
ADI	Authorised Deposit-taking Institution
AIMs	Additional Initial Margins
ALR	Additional Liquidity Requirement
AMO	Approved Market Operator
APRA	Australian Prudential Regulation Authority
ASIC	Australian Securities and Investment Commission
ASX	Australian Securities Exchange
ASXCC	ASX Clearing Corporation
AUD	Australian Dollar
BCM	Business Continuity Management
BCMF	Business Continuity Management Framework
CBD	Central Business District
CCP	Central Counterparty
CEO	Chief Executive Officer
CHESS	Clearing House Electronic Subregister System
CMF	Compliance Management Framework
CPMI	Committee on Payments and Market Infrastructures
CRO	Chief Risk Officer
CS	Clearing and Settlement
CSD	Central Securities Depository
CST	Credit Stress Testing
CLR	Core Liquidity Requirement
DLR	Default Liquidity Requirement
DvP	Delivery versus Payment
ERMF	Enterprise Risk Management Framework
ESA	Exchange Settlement Account
ESAS	Exchange Settlement Account System
EUR	Euro
FHSVaR	Filtered Historical Simulation Value at Risk
FMI	Financial Market Infrastructure
FSS	Financial Stability Standards
GBP	Pound Sterling
GRC	Governance, Risk and Compliance
HSVaR	Historical Simulation Value at Risk
HVCS	High Value Clearing System
ICA	Individual Client Account
ICSD	International Central Securities Depository
IM	Initial Margin
IOSCO	International Organisation of Securities Commissions
IRS	Interest Rate Swap
JPY	Japanese Yen
NZD	New Zealand Dollar
OLR	Ordinary Liquidity Requirement
OTA	Offsetting Transaction Arrangement
OTC	Over the Counter
PFMI	Principles for Financial Market Infrastructures

PSNA	Payment Systems and Netting Act
QCCP	Qualifying Central Counterparty
RBA	Reserve Bank of Australia
RBNZ	Reserve Bank of New Zealand
RITS	Reserve Bank Information and Transfer System
RMB	Renminbi
RTGS	Real Time Gross Settlement
SPAN	Standard Portfolio Analysis of Risk
SSF	Securities Settlement Facility
STEL	Stress Test Exposure Limit
TCS	Tata Consultancy Services
USD	United States Dollar
VaR	Value at Risk
VM	Variation Margin

Disclaimer

This document provides general information only and may be subject to change at any time without notice. ASX Limited (ABN 98 008 624 691) and its related bodies corporate ("ASX") makes no representation or warranty with respect to the accuracy, reliability or completeness of the information. To the extent permitted by law, ASX and its employees, officers and contractors shall not be liable for any loss or damage arising in any way (including by way of negligence) from or in connection with any information provided or omitted, or from anyone acting or refraining to act in reliance on this information.

© Copyright ASX Operations Pty Limited ABN 42 004 523 782. All rights reserved 2025.