Oversight, Supervision and Regulation of Financial Market Infrastructures

Financial market infrastructures (FMIs) are institutions that facilitate the clearing, settlement and recording of financial transactions. The Bank has a role in overseeing and supervising three types of FMIs: central counterparties (CCPs) and securities settlement facilities (SSFs)[25] – together referred to as clearing and settlement (CS) facilities – as well as systemically important payments systems.

The Bank's Regulatory Regime for FMIs

The *Corporations Act 2001* assigns to the Bank a number of powers and functions related to the supervision and oversight of CS facilities. Under the *Reserve Bank Act 1959*, the Payments System Board is responsible for ensuring that these powers and functions are exercised in a way that will best contribute to the overall stability of the financial system.

In accordance with the Reserve Bank Act, the Payments System Board also plays a role in the governance of the Bank's oversight of systemically important payments systems.

CS facilities

CS facilities that operate in Australia are required to be licensed or exempted under Part 7.3 of the Corporations Act. The requirement to be licensed applies to both domestic and overseas facilities. Under this Act, the Bank and the Australian Securities and Investments Commission (ASIC) have separate, but complementary, regulatory responsibilities for the supervision of CS facilities. The Corporations Act assigns to the Bank a number of powers and functions related to the supervision and oversight of CS facilities. In particular, the Bank is responsible for:

- providing advice to the Minister regarding applications for CS facilities, variations to or imposition of conditions on licences, or the suspension or cancellation of licences
- determining standards (the Financial Stability Standards) for the purposes of ensuring that CS facility licensees conduct their affairs in a way that causes or promotes overall stability in the Australian financial system
- assessing how well a licensee is complying with its obligation under the Corporations Act, to the extent that it is reasonably practicable to do so, comply with these standards and do all other things necessary to reduce systemic risk.

Under the Reserve Bank Act, the Payments System Board is responsible for ensuring that the Bank exercises these powers and functions in a way that will best contribute to the overall stability of the financial system.

25 Referred to internationally as 'securities settlement systems'.

Financial Stability Standards

The Bank has determined two sets of Financial Stability Standards – one for CCPs[26] and one for SSFs.[27] It is an obligation of each licensed CS facility that it meets the relevant set of Standards.

The objectives of the Standards are to ensure that CS facility licensees identify and properly control risks associated with the operation of the facility, and conduct their affairs in accordance with the Standards in order to promote overall stability of the Australian financial system. The Standards set principles-based requirements and regulatory expectations, rather than prescribing detailed rules and obligations.

In developing these Standards, the Bank has given close regard to the internationally agreed standards for FMIs set out in the *Principles for Financial Market Infrastructure* (PFMI). The PFMI are designed to ensure that the FMIs supporting global financial markets are financially, legally and operationally robust. The overall objective is to ensure that FMIs promote stability and efficiency in the financial system.

The consistency of the Bank's Standards with the PFMI has been verified through a peer review conducted in 2015 by the Committee on Payments and Market Infrastructures (CPMI) and the Technical Committee of the International Organization of Securities Commissions (IOSCO), the standard-setting bodies that developed the PFMI.[28]

No new Standards were determined in 2017/18.

The application of additional PFMI guidance to CS facilities

In recent years CPMI and IOSCO have developed additional guidance on a number of aspects of the PFMI, which the Bank applies in interpreting its Financial Stability Standards.[29] This guidance seeks to enhance FMI risk management practices by providing further clarity and detail on the existing requirements within the PFMI. The guidance covers, for example, areas of emerging risk or areas in which CPMI and IOSCO had identified that there were inconsistencies in how particular standards in the PFMI had been interpreted or adopted. The guidance encourages FMIs to adopt best practices and seeks to foster international consistency where that is appropriate.

In 2017/18, the Bank completed assessments of domestic CS facilities against the CPMI–IOSCO *Guidance on Cyber Resilience for Financial Market Infrastructures* (the Cyber Resilience Guidance)[30] and two sets of guidance published in July 2017:

- *Resilience of Central Counterparties (CCPs): Further Guidance on the PFMI* (the CCP Resilience Guidance), which seeks to clarify and elaborate on requirements in the PFMI related to CCP resilience[31]
- *Recovery of financial market infrastructures* (the revised Recovery Guidance).[32]

Licensed CS facilities

At present there are seven CS facilities licensed to operate in Australia:

- Four ASX Group facilities – ASX Clear Pty Limited (ASX Clear), ASX Clear (Futures) Pty

26 Available at <https://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/clearing-and-settlement-facilities/standards/central-counterparties/2012/>.

27 Available at <https://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/clearing-and-settlement-facilities/standards/securities-settlement-facilities/2012/>.

28 *CPMI–IOSCO, Implementation monitoring of PFMI: Level 2 Assessment Report for Australia*, December 2015. Available at <http://www.bis.org/cpmi/publ/d140.pdf>.

29 For the full list of guidance that the Bank has adopted see the notes to the Financial Stability Standards at <http://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/clearing-and-settlement-facilities/standards/>.

30 Available at <http://www.bis.org/cpmi/publ/d146.htm>.

31 Available at <http://www.bis.org/cpmi/publ/d163.htm>.

32 Available at <http://www.bis.org/cpmi/publ/d162.htm>.

Limited (ASX Clear (Futures)), ASX Settlement Pty Limited (ASX Settlement) and Austraclear Limited – which are domiciled in Australia.

- IMB Limited, an Australian building society, which operates a market for trading in its own shares by its members, and an associated SSF to settle these trades.
- The UK-based LCH Limited (LCH Ltd).
- The US-based Chicago Mercantile Exchange Inc. (CME).

In 2017/18 there were no new CS facility licences granted; there was, however, a variation of LCH Ltd's licence to amend its legal name from LCH. Clearnet Limited to LCH Limited.

Assessments

As part of its obligations under the Corporations Act, the Bank must periodically assess how well a CS facility licensee is complying with the Financial Stability Standards and doing all other things necessary to reduce systemic risk.[33] The Bank also assesses prospective licensees against these standards at the time of their licence application. The Bank has set out in policy statements its broad approach to assessments,[34] and also the frequency with which it will conduct assessments.[35] Consistent with the CPMI–IOSCO Principles for Financial Market Infrastructures: Disclosure Framework and Assessment Methodology (PFMI),[36] which encourages greater transparency regarding the activities of FMIs, the Bank publishes its assessments of CS facilities.

In July 2018, the Bank and ASIC published their updated joint self-assessment against the Responsibilities for Authorities (which are part of the PFMI) with respect to CS facilities.[37] This report provides more transparency around the Bank's and ASIC's role in the regulation and oversight of CS facilities and, in particular, the application of the PFMI to these facilities. The report concludes that the Bank and ASIC observe the relevant Responsibilities for Authorities, but nevertheless commits the Bank to certain actions in the spirit of continuous improvement.

Approach to assessments

When undertaking assessments of a domestic CS facility's compliance with the standards, the Bank's methodology is guided by CPMI–IOSCO's Assessment Methodology for the PFMI, which provides a framework for assessing and monitoring observance of the PFMI.[38]

The Bank complements the periodic information it receives with in-person meetings with CS facility personnel, including: annual meetings with the board and, separately, the chair of the board to discuss strategic issues and compliance with the Financial Stability Standards, semi-annual senior executive-level discussions of strategy and relevant market developments; quarterly meetings with executives/senior management to discuss developments relevant to compliance with the standards and other material developments; quarterly meetings with management/staff to discuss developments in financial and operational risk management; and other ad hoc meetings as needed.

33 The exception is IMB Limited, which is currently exempt from the Financial Stability Standards owing to its small size.

34 The Reserve Bank's Approach to Assessing Clearing and Settlement Facility Licensees', available at <http://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/clearing-and-settlement-facilities/standards/assess-csf-licensees.html>.

35 'Frequency and Scope of Regulatory Assessments of Licensed Clearing and Settlement Facilities', available at <http://www.rba.gov.au/payments-and-infrastructure/payments-system-regulation/frequency-of-assessments.html>.

36 CPMI–IOSCO, *Principles for financial market infrastructures: disclosure framework and assessment methodology*, December 2012. Available at <http://www.bis.org/cpmi/publ/d106.htm>.

37 Available at <http://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/principles/assessment-against-responsibilities/responsibilities-of-authorities/2018/>.

38 Available at <http://www.bis.org/cpmi/publ/d106.htm>.

The Bank's assessment reports of a domestic CS facility's compliance with the standards typically comprise: an assessment of progress in addressing recommendations and stated regulatory priorities identified in previous assessments; a discussion of material changes in the operation of the facility and their implications for compliance with the standards; a more comprehensive and detailed 'deep dive' assessment against a subset of the standards; and a review of how the CS facility's arrangements address each of the standards.

The Bank's supervisory approach to overseas CS facilities depends on a number of factors:

- whether the supervisory regime in an overseas CS facility's home jurisdiction is sufficiently equivalent to that in Australia
- whether satisfactory information sharing and regulatory cooperation arrangements have been established between the Bank and the relevant overseas authorities.

Where these conditions are met, the Bank will, in general, look to rely on the CS facility's primary regulator, rather than undertake direct supervision. Given that the Bank and many other jurisdictions have incorporated the PFMI into their regulatory regimes, the Bank would in general expect this to be the case for most overseas CS facilities looking to operate in Australia. However, there may still be some differences in detail between the Bank's standards and the overseas regime that mean the Bank undertakes a direct assessment of the facility's compliance with these aspects of the standards. In practice, these differences are typically where the standards specify Australian-specific regulatory reporting and notification requirements and/or measures to enhance Australian regulatory influence over cross-border facilities.

For all overseas CS facility licensees, the Bank reserves the right to gather information through a range of interactions with the licensee to aid its understanding of material developments affecting the licensee or to assess progress against stated regulatory priorities, including participation in supervisory 'colleges' organised by the primary regulator.

In accordance with the above information sharing expectations, there are a number of bilateral and multilateral agreements relevant to the Bank's oversight of the two overseas CS facility licensees that operate in Australia.[39]

- Memoranda of Understanding (MoU) are in place with the Bank of England (with respect to oversight of LCH Ltd) and with the US Commodity Futures Trading Commission (with respect to oversight of CME). These MoUs establish cooperation arrangements and the exchange of information between the Bank and the relevant overseas regulators.
- The Bank is also a member of two international multilateral cooperative arrangements as part of its oversight of LCH Ltd: the Multilateral Arrangement for Regulatory, Supervisory and Oversight Cooperation on LCH Ltd (LCH Ltd Global College), which is a forum of LCH Ltd's international regulators; and the LCH Ltd Crisis Management Group, which was formed to create arrangements between international regulators to undertake recovery and resolution planning for LCH Ltd.

Frequency and scope of assessments

The frequency of assessment against the relevant standards is considered with reference to whether: (i) a facility is systemically important

39 These agreements are available at <http://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/clearing-and-settlement-facilities/memoranda-of-understanding.html>.

in Australia, and/or (ii) has a strong domestic connection. The Bank has determined that the four domestic ASX Group CS facility licensees meet these criteria and therefore are assessed annually. In addition, the Bank has determined that one overseas facility, LCH Ltd, should also be assessed annually.

Assessments of other CS facilities will typically be undertaken at a reduced level of detail and may be carried out on a less frequent basis. In the case of overseas facilities, the assessment cycle of the home regulator will be a relevant consideration. Furthermore, depending on the nature and scope of a CS facility's activities in Australia, detailed assessments against all parts of the standards may not be necessary. Where the Bank has set regulatory priorities, however, an update on progress against these would be expected to be carried out. These arrangements currently apply in the case of CME.

Systemically important payments systems

A key element of the Payments System Board's responsibility for the safety and stability of the payments system in Australia is the oversight of systemically important payments systems.

The only domestic payment system that the Bank regards as systemically important, and hence for which an assessment against international principles is necessary, is Australia's real-time gross settlement (RTGS) system, the Reserve Bank Information and Transfer System (RITS).[40] Consistent with the criteria for systemic importance outlined in the PFMI, this view reflects the fact that RITS:

- is the principal domestic payments system in terms of the aggregate value of payments
- mainly handles time-critical, high-value payments
- is used to effect settlement of payment instructions arising in other systemically important FMIs.

Effective oversight of RITS is assured through internal governance arrangements within the Bank that separate operational and oversight functions, as well as by transparent assessments against the PFMI. Since 2013, the Bank has published annual assessments of RITS against the PFMI.[41] These assessments are reviewed by the Board, which also reviews any material developments occurring between assessments.

CLS Bank International (CLS) is an international payments system for settling foreign exchange trades in 18 currencies, including the Australian dollar. Since CLS settles a significant, and growing, value of Australian dollar-denominated foreign exchange-related payments, the Bank has identified CLS as a systemically important international payments system. CLS is regulated, supervised and overseen by the US Federal Reserve, in cooperation with an oversight committee that includes the Bank and a number of other overseas central banks. Through this forum the Bank is involved in overseeing how well CLS meets the requirements of the PFMI. CLS is also required to publish a disclosure describing its operations and approach to observing the applicable principles.

While SWIFT is not a payment system, it provides critical communications services to both RITS and CLS, as well as other FMIs and market participants in Australia and overseas. SWIFT is primarily overseen by the SWIFT Oversight Group (OG), of which the G10 central banks are members. Since SWIFT is incorporated in Belgium, the

40 In conducting these assessments the Bank has regard to relevant guidance issued by CPMI and IOSCO. In particular, from 2016/17 the Bank has been applying the June 2016 *Guidance on Cyber Resilience for Financial Market Infrastructures*.

41 Between 2015 and 2017 the Bank changed the time of year that it conducts its assessment of RITS resulting in a longer gap between these two assessments.

OG is chaired by the National Bank of Belgium. The Bank is a member of the SWIFT Oversight Forum, a separate group established to support information sharing and dialogue on oversight matters among a broader set of central banks. Through the SWIFT Oversight Forum, these central banks receive information on the OG's conclusions and have an opportunity to input into the OG's oversight priorities. Oversight of SWIFT is supported by a set of standards – the High-level Expectations – which are consistent with standards for critical service providers in the PFMIs.

The Bank also monitors developments in the payments landscape periodically to consider whether any other payments systems should also be subject to ongoing oversight and assessments against the PFMI.

In July 2018, the Bank updated its self-assessment against the Responsibilities for Authorities with respect to systemically important payments systems.[42] The report provides more transparency around the Bank's role in the regulation and oversight of systemically important payments systems and, in particular the application of the PFMI to these facilities. The report concludes that the Bank observes the relevant responsibilities, but nevertheless commits the Bank to certain actions in the spirit of continuous improvement.

The Bank's FMI Oversight and Supervision Activities

Day-to-day oversight and supervision of FMIs is undertaken by the Bank's Payments Policy Department, in accordance with the approach to assessments discussed above. In carrying out these activities, the Bank works closely with ASIC. The Bank's oversight and supervision activity is overseen by an internal body of the Bank, the FMI Review Committee, which was established by, and reports to, the Bank's Executive Committee; the FMI Review Committee's annual report is also provided to the Payments System Board. This committee is chaired by the Assistant Governor (Financial System), who is also Deputy Chair of the Payments System Board. Other members include the heads of the Payments Policy, Payments Settlements and Domestic Markets departments, as well as senior staff members with expertise in FMI-related matters but who are not currently directly involved in the Bank's oversight and supervision of FMIs. A core part of the committee's role is to ensure that oversight activities are carried out in a manner that is consistent with policies established by the Board. The committee meets quarterly, approximately six weeks before Board meetings, as well as dealing with matters by written procedure as needed. Staff of Payments Policy Department provide reports to the Board on the Bank's oversight and supervisory activities.

The following summarises activity and material developments over 2017/18 for the six CS facilities and the systemically important payments systems overseen and supervised by the Bank.

ASX

The four domestic CS facility licensees required to meet the standards are all part of the ASX Group. In September 2018, the Bank published its latest assessment of these facilities.[43] This assessment concluded that the CS facilities 'observed' all relevant requirements under the standards, with the following exceptions: all four CS facilities were downgraded from 'observed'

42 This self-assessment is available at <http://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/principles/assessment-against-responsibilities/systemically-important/>.

43 The Bank's *September 2018 Assessment of the ASX CS Facilities* is available at <https://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/clearing-and-settlement-facilities/assessments/2017-2018/>.

to 'partly observed' against the operational risk standard and from 'observed' to 'broadly observed' against the governance standard; both CCPs were downgraded from 'observed' to 'broadly observed' against the liquidity risk and credit risk standards; ASX Clear (Futures) maintained a rating of 'broadly observed' against the margin standard. The steps taken by ASX to address the Bank's regulatory priorities for the annual assessment period ending June 2018, as well as other material developments, are set out below.

Assessments against international guidance

During the assessment period, the Bank assessed ASX against the Cyber Resilience Guidance, drawing on a self-assessment by ASX against the guidance and an external assessment of ASX against industry standards. The Bank's assessment concluded that ASX's cyber security arrangements are consistent or broadly consistent with the Cyber Resilience Guidance, apart from the expectation that ASX is able to safely resume critical services within two hours of a disruption in extreme but plausible cyber-attack related scenarios. It should be noted, however, that the two-hour target is an ambitious one that FMIs globally are typically not yet able to meet. Consistent with the Cyber Resilience Guidance, ASX has developed and is implementing a concrete plan to improve its capabilities to recover from a cyber attack.

The new CCP Resilience Guidance raises the bar in relation to financial risk management at CCPs, focusing on five key elements of a CCP's financial risk management framework: governance; stress testing; the level of coverage of financial resources; margin; and a CCP's contribution of its financial resources to losses. Although no additional standards are imposed by this guidance, it was expected to prompt enhancements to risk management practices at many CCPs, with implementation expected by the end of 2017. The Bank's assessment concluded that ASX's practices are consistent or broadly consistent with the guidance. Although ASX meets the majority of the guidance, the Bank identified a number of gaps, some of which were of potential concern, spread across six Financial Stability Standards. The more significant gaps related to the liquidity risk and credit risk standards.

The revised Recovery Guidance provides guidance for FMIs and authorities on the development of recovery plans, which are required by the Financial Stability Standards because a disorderly failure of a systemically important FMI could lead to severe systemic disruption. This guidance is an update of guidance initially published in October 2014 and covers the recovery planning process and the content of recovery plans, including an overview of some of the tools an FMI may include in its recovery plan. Building on its previous assessments of ASX's recovery arrangements, the Bank concluded that ASX's practices were consistent with the revised guidance.[44]

CCP risk management changes

The CCP Resilience Guidance clarifies that CCPs should maintain a level of prefunded financial (i.e. capital) and liquid resources sufficient to withstand the default of its largest clearing participants on an ongoing basis. As the ASX CCPs are recognised in the European Union they are expected to have sufficient resources to cover the default of their largest two participants (known as Cover 2). Over a six-month period to January, the ASX CCPs reported nine Cover 2 capital requirement breaches and in each case

44 The Bank assessed ASX's recovery arrangements in its *September 2015 Assessment of the ASX CS Facilities*, which is available at <https://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/clearing-and-settlement-facilities/assessments/2014-2015/>.

the ASX CCPs were reliant on margin to be received the following day to meet the Cover 2 capital requirement. In response to these breaches, the ASX CCPs implemented lower stress test exposure limits, which will result in the ASX CCPs receiving additional margin before the largest two stress test exposures exceed the size of the default fund, rather than the ASX CCPs calling for additional margin at the point a breach occurs and then receiving the margin by midday the following day.

In response to increased activity during the ASX 24 Night Session and the extended operating hours of the over-the-counter (OTC) Clearing Service, ASX Clear (Futures) commenced calling for overnight initial margin from certain futures and OTC participants from late November 2017. These overnight margin calls are denominated in US dollars, and can be called Monday to Saturday. Participants are required to maintain a margin buffer to cover less-than-extreme potential variation margin exposures created in the overnight session. If this buffer proved to be insufficient, ASX Clear (Futures) also introduced the ability to call additional margin overnight; although for practical reasons ASX Clear (Futures) is only expected to make such a call in extreme circumstances. These changes mostly addressed the Bank's September 2017 recommendation that ASX to implement its plans to introduce a scheduled intraday margin call during ASX 24's Night Session to improve its management of intraday exposures created during that session. In the longer term, ASX Clear (Futures) is expected to put arrangements in place to be able to monitor and manage intraday exposures created during ASX 24's Night Session on a near real-time basis, or take other steps to ensure comprehensive management of intraday exposures created during that session.

ASX operational risk review

At the instigation of the Bank and ASIC, in September 2017 ASX commissioned an independent external review of ASX's technology governance, operational risk and control frameworks covering ASX's licensed markets and CS facilities. This followed a number of operational disruptions over the previous two years. The review was concluded in December and identified a number of areas for improvement in ASX's risk management and technology strategy, governance practices, operational risk measurement and monitoring, knowledge management and resource management arrangements. Building on existing initiatives underway in these areas, ASX has established a program to address the findings of this review. The detail on the findings, along with ASX's work program to address these findings, is provided in the Bank's 2018 Assessment of ASX.

CHESS replacement

During 2017/18, ASX continued to develop the replacement for the CHESS clearing and settlement system. This is an important element of ensuring that ASX's core infrastructure for the cash equities market meets international best practice, and that its performance, resilience, security and functionality continue to meet the needs of its users.

In late 2017, ASX formally selected Digital Asset Holdings (DA) as the vendor for the distributed ledger technology-based platform that will replace CHESS. As an input to making this decision, ASX conducted a preliminary self-assessment against the Financial Stability Standards and the PFMI, which concluded there was nothing intrinsic to the technology that would prevent ASX Clear and ASX Settlement from complying with their regulatory obligations on an ongoing basis. The ASX Board also considered the results of two external security assessments of the prototype platform that DA has developed.

In April, ASX issued a public consultation paper on the CHESS functionality it intends to offer, both on Day 1 and in the longer term. The proposed new functionality is based on new business requirements proposed by stakeholders in industry working groups along with additional functionality identified separately by ASX. ASX is currently aiming for the new system to commence operation in early 2021, subject to stakeholder feedback and technological build considerations.

The Bank will continue to monitor the development of the new clearing and settlement system for cash securities transactions, in addition to monitoring the ongoing maintenance and smooth functioning of the existing CHESS system in the transition to its replacement system.

New Zealand dollar OTC interest rate derivative clearing

In November, ASX Clear (Futures) implemented rule changes to support the expansion of its OTC Clearing Service to include New Zealand dollar OTC interest rate derivatives (IRD). The products initially eligible for clearing included bank bill benchmark (BKBM) interest rate swaps (IRS) and overnight index swaps (OIS), both to a maximum maturity of two years. The maximum maturity of BKBM IRS was extended to 15 years in February.

LCH Ltd

LCH Ltd is licensed in Australia to provide CCP services for OTC IRD and inflation rate derivatives.

In December 2017, the Bank published the *2016/17 Assessment of LCH Limited's SwapClear Service*.[45] This assessment concluded that LCH Ltd met the CCP Standards and either met or made progress towards meeting the Bank's regulatory priorities. Steps taken so far by LCH Ltd to address these priorities, as well as other material developments, are set out below.

Operating hours in Australia

LCH Ltd has continued its work to extend the operating hours of the SwapClear service, while ensuring the safety and resilience of its operations. Currently, the SwapClear service is closed for much of the Australian business day, and trades executed during that time are not cleared by SwapClear until the Australian afternoon when the SwapClear service opens. The official opening time remains at 6 am London time, though in practice LCH Ltd has opened the service an hour earlier where possible. LCH Ltd is continuing its work to extend the operating hours of the SwapClear service following the completion of a system upgrade, in line with the Bank's regulatory priority.

Protected Payments System arrangements in Australia

The Bank requested that LCH Ltd complete its implementation of its Protected Payments System (PPS) arrangements in Australia to facilitate payments to and from its Australian clearing participants. The four major Australian banks and Macquarie Bank (which became a SwapClear member in April) are required to use the Australian PPS arrangements to settle their Australian dollar obligations directly with LCH Ltd using their Exchange Settlement Accounts at the Bank. All five of these banks are now meeting this requirement. In December, LCH Ltd announced that it will accept Australian dollar cash for initial margin via the Australian PPS.

Areas of supervisory focus

In addition to the regulatory priorities in its 2016/17 Assessment, the Bank also identified

45 Available at <https://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/clearing-and-settlement-facilities/assessments/lch/2017/pdf/lch-assess-2017-12.pdf>.

three areas of supervisory focus for its supervision of LCH Ltd. These related to governance, operational resilience and cyber risk management, and developments in international standards. These areas had either experienced significant change that the Bank intended to monitor, or areas where the Bank considered that further analysis was required. The Bank has been engaging with LCH Ltd and the Bank of England on these areas and will provide a formal update in its 2017/18 Assessment of LCH Ltd.

Chicago Mercantile Exchange Inc.

CME is licensed to provide CCP services for OTC IRD and non-Australian dollar IRD traded on the CME market or the Chicago Board of Trade market for which CME permits portfolio margining with OTC IRD. In March 2018, the Bank published its assessment of CME for the 12 months ending December 2017, which concluded that CME had either met, or made some progress towards meeting, the regulatory priorities identified by the Bank in its previous assessment.

Given the nature and scope of CME's current activities in Australia, the Bank did not consider it necessary to conduct a detailed assessment of CME against all of the CCP Standards. Once CME has material direct Australian-based clearing participation, or there is a material increase in CME's provision of services in Australian-related products, the Bank will expect CME to ensure that CME's operational and governance arrangements promote stability in the Australian financial system.

The Bank's previous assessment published in March 2017 included a priority that CME should materially reduce the size and concentration of its unsecured investments of cash collateral with non-government obligors. CME has expanded the number of its investment counterparties and substantially increased the share of cash collateral deposited at central bank accounts, fully addressing this regulatory priority.

The most recent assessment carried forward priorities relating to CME's recovery and wind-down plans and its liquidity risk management framework. CME has provided the Bank with relevant documents and the Bank expects to complete a review of the updated recovery and wind-down plans and the results of an external validation of the liquidity risk management framework in the current assessment period.

Reserve Bank Information and Transfer System

RITS is Australia's high value payments system that is used by banks and other financial institutions to settle their payment obligations. The most recent assessment of RITS against the PFMI was endorsed by the Board and published in May 2018.[46] The assessment concluded that RITS had observed all of the relevant principles. Key developments in the Bank's areas of oversight focus are set out below.

Cyber resilience

During the assessment period, the Bank continued work to address recommendations from a series of reviews carried out in 2016 of RITS' cyber resilience arrangements. The highest priority recommendations were addressed in early 2017, with a number of the lower priority recommendations also since completed. The remainder of the lower priority recommendations are scheduled to be addressed in 2018, with the exception of a small number of recommendations that are being addressed via related projects that may extend beyond 2018.

46 Available at <http://www.rba.gov.au/payments-and-infrastructure/rits/self-assessments/>.

The Bank has carried out work to meet security standards established by SWIFT as part of its Customer Security Programme. At the end of 2017, the Bank lodged its first annual attestation relating to compliance with these standards and, in June, the Bank was assessed to be compliant with all 16 mandatory controls by an external auditor. The Bank is also continuing to evaluate current and emerging technology options that may further enhance the capability of RITS to recover from cyber attacks in a timely manner.

Fast Settlement Service

A new service of RITS – the Fast Settlement Service – was publicly launched with the New Payments Platform (NPP) in February (see the 'New Payments Platform' section in the chapter on 'Trends in Payments, Clearing and Settlement Systems'). The Fast Settlement Service allows NPP transactions between customers of different banks to be settled 24/7 on a real-time gross settlement basis, which supports immediate funds availability to payment recipients. The Bank has amended the RITS Regulations in order to incorporate changes supporting the Fast Settlement Service.

Although governed by the RITS Regulations, the Fast Settlement Service operates as a separate service from the core RITS service. Given the current level of transactions in the NPP and Fast Settlement Service, the Bank does not presently assess these systems against the PFMI, apart from their interactions with the core RITS system. The Bank will continue to monitor developments in the NPP and Fast Settlement Service, and periodically review whether an assessment against the PFMI should be conducted in future.

CLS Bank International

Over 2017/18 CLS progressed plans to develop a stand-alone CCP service – CLSClearedFX – to settle centrally cleared deliverable FX products. CLSClearedFX provides net settlement of centrally cleared FX obligations, which will minimise the liquidity risk faced by CCPs using the service. The LCH Ltd settlement service launched in July 2018. At launch, it cleared deliverable FX options in eight currency pairs, including Australian dollar/US dollar. The Eurex service is expected to launch later in 2018.

SWIFT

During 2017/18, cyber resilience remained an important focus of SWIFT and its overseers. By December 2017, SWIFT members were required to provide their first attestations of their level of compliance with the mandatory security controls in SWIFT's Customer Security Programme. SWIFT members are expected to comply with these mandatory controls, which are based on widely accepted best practices, by the end of 2018 at the latest. SWIFT recently updated its Customer Security Programme to include additional mandatory controls that will need to be complied with by the end of 2019.

SWIFT is also consulting on a phased migration to ISO 20022 messages for cross-border payments (see the chapter on 'Retail Payments Regulation and Policy Issues').

Policy Development

The Bank works with other regulators (both domestically and abroad) on issues relevant to the regulation and oversight of FMIs. In Australia, much of this work has been coordinated by the Council of Financial Regulators (CFR) and, internationally, the Bank engages with relevant international standard-setting bodies. Where relevant to the Board's responsibilities, the Board has been kept updated on developments and members' input and guidance have been sought.

International

A focus of international policy work on FMIs over recent years has been on developing guidance in relation to CCP resilience, recovery and resolution. This work has been conducted under a joint CCP workplan developed by CPMI, the Financial Stability Board, IOSCO and the Basel Committee on Banking Supervision.[47] The Bank has been closely engaged in this international policy work, as well as other work areas including monitoring of implementation of the PFMIs and the development of a strategy to reduce the risk of wholesale payments fraud. Domestically, the Bank has contributed to CFR-led work to develop a special resolution regime for FMIs and continued work on competition in the clearing and settlement of cash equities in Australia.

CCP workplan and supervisory stress tests

As noted in last year's Annual Report, Payments Policy Department was closely involved in two of the main components of the joint CCP workplan, which were published in July 2017.[48] Staff also facilitated the inclusion of data from the ASX CCPs in an analysis of central clearing interdependencies produced as part of the CCP workplan.[49] Staff have also been involved in an ongoing joint CCP workplan project considering the adequacy of financial resources for CCP resolution and the treatment of CCP equity in resolution.

Complementing the resilience aspects of the CCP workplan, Payments Policy Department contributed to a recently published CPMI and IOSCO framework for supervisory stress tests (SSTs).[50] The framework aims to help authorities to design and execute SSTs. SSTs can be used by authorities to understand the risks that could materialise if multiple CCPs were to face a common stress event.

Implementation monitoring

In 2017/18 Payments Policy Department continued to contribute to the international monitoring of implementation of the PFMI by the CPMI–IOSCO Implementation Monitoring Standing Group. In May CPMI–IOSCO published a report which reviewed the progress made by 19 globally active and regionally focused CCPs in achieving consistency in outcomes achieved in the implementation of the PFMI.[51] This report included three CCPs that are licensed in Australia: ASX Clear (Futures), LCH Ltd and CME. The staff also contributed to peer review exercises that assess the extent to which a jurisdiction's implementation measures are complete and consistent with the PFMI, including a recently published report on Canada.

Wholesale payments security

In May 2018, CPMI released a report, which Payments Policy Department contributed to, that sets out a strategy for reducing the risk of wholesale payments fraud related to endpoint security.[52] The strategy is directed at operators of wholesale payment systems and messaging networks, their participants and relevant regulatory authorities and encourages holistic efforts to strengthen the prevention, detection, response to and communication about fraud in the wholesale payments ecosystem. SWIFT's Customer Security Programme (discussed above) is one way of addressing certain aspects of CPMI's strategy.

47 Available at <http://www.bis.org/cpmi/publ/d165.pdf>.

48 The CCP Resilience Guidance and the Financial Stability Board's *Guidance on Central Counterparty Resolution and Resolution Planning*, which is available at <http://www.fsb.org/wp-content/uploads/P050717-1.pdf>.

49 Available at <https://www.bis.org/cpmi/publ/d181.htm>.

50 Available at <https://www.bis.org/cpmi/publ/d176.htm>.

51 Available at <https://www.bis.org/cpmi/publ/d177.htm>.

52 Available at <https://www.bis.org/cpmi/publ/d178.htm>.

Domestic

In developing domestic policy for FMIs, the Bank works with the other regulators through the CFR, the coordinating body for Australia's main financial regulatory agencies. During 2017/18, the focus of the CFR's work on FMIs has been on FMI resolution and competition in clearing and settlement of equities.

A resolution regime for FMIs in Australia

During the past year, the CFR agencies have continued work to develop a special resolution regime for FMIs.[53] Alongside this, the CFR will also work with the government to draft legislation to amend the approach Australian authorities take in assessing whether an overseas CS facility should be subject to regulation in Australia. The proposal, which was consulted on in 2015, rests on a test of the materiality of a CS facility's connection to the Australian financial system, and stakeholders have expressed support for the proposed criteria as well as the need to be flexible.[54]

Competition in clearing and settlement of cash equities in Australia

In September 2017, the CFR, in collaboration with the Australian Competition and Consumer Commission (ACCC), released a policy statement setting out the *Minimum Conditions for Safe and Effective Competition in Cash Equity Settlement in Australia* (Minimum Conditions (Settlement)).[55] This statement aims to mitigate any adverse implications for financial system stability, the effective functioning of markets and access should competition in settlement of cash equities emerge. Feedback received from stakeholders through the consultation process and the agencies' responses were also released.[56] The Minimum Conditions (Settlement) complements the CFR's existing policy documents to establish a flexible framework that underpins the government-endorsed policy stance of openness to competition.[57] Elements of these policies are not, however, enforceable under the existing regulatory framework. Consequently, the CFR and ACCC are working with the government to implement legislative changes to the statutory framework for CS facilities.

53 The CFR consulted on the resolution regime in early 2015 and released a response to consultation later that year. For more information, see *Resolution Regime for Financial Market Infrastructures: Response to Consultation*. Available at <http://www.cfr.gov.au/publications/cfr-publications/2015/resolution-regime-financial-market/pdf/report.pdf>.

54 See <http://www.cfr.gov.au/publications/cfr-publications/2015/ocsf-aus-licensing-regime/>.

55 Available at <https://www.cfr.gov.au/publications/cfr-publications/2017/minimum-conditions-safe-effective-competition/pdf/policy-statement.pdf>.

56 Safe and Effective Competition in Cash Equity Settlement in Australia: Response to Consultation. Available at <https://www.cfr.gov.au/publications/cfr-publications/2017/safe-effective-competition-response/pdf/response-to-consultation.pdf>.

57 The *Minimum Conditions for Safe and Effective Competition in Cash Equity Clearing in Australia* is available at <https://www.cfr.gov.au/publications/cfr-publications/2016/minimum-conditions-safe-effective-cash-equity/pdf/policy-statement.pdf>; The *Regulatory Expectations for Conduct in Operating Cash Equity Clearing and Settlement Services in Australia* are available at <https://www.cfr.gov.au/publications/cfr-publications/2016/regulatory-expectations-policy-statement/pdf/policy-statement.pdf>.