REPORT 359

Report on the Australian OTC derivatives market

July 2013

A joint report by the Australian Prudential Regulation Authority, Australian Securities and Investments Commission and Reserve Bank of Australia

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ISBN 978-0-9874673-1-7 (Online)

Contents

1. Introduction and Executive Summary

In recent years, the Australian regulators have undertaken substantial work to understand the risks in the Australian over-the-counter (OTC) derivatives markets and explore how these risks may best be addressed. There is an international policy consensus that encouraging greater use of centralised infrastructure – trade repositories (TRs), central counterparties (CCPs) and trading platforms – in OTC derivatives markets should help to address many of the concerns of regulators and market participants. This is most prominently articulated by the G20 leaders in their September 2009 statement (the G20 commitments) that:

> All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements. We ask the FSB and its relevant members to assess regularly implementation and whether it is sufficient to improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse.[1]

In November 2011, G20 leaders added to these commitments, agreeing that international standards on margining of non-centrally cleared OTC derivatives should also be developed.[2]

While the Australian Prudential Regulation Authority (APRA), the Australian Securities and Investments Commission (ASIC) and the Reserve Bank of Australia (RBA) (together, the regulators) recognise that the efficiency, integrity and stability of the Australian OTC derivatives market may be enhanced through the use of centralised infrastructure, the regulators have to date sought to permit an incentives-led transition where appropriate.

However, to ensure that, in the absence of an incentives-led transition, desired outcomes may still be achieved, Australia has introduced legislation that provides for the Minister to impose mandatory requirements for trade reporting, central clearing and platform trading of OTC derivatives, where appropriate and on the advice of the regulators. In order to inform their advice, the regulators are actively monitoring developments in the Australian and overseas OTC derivatives markets. As part of this process, the regulators carry out periodic surveys of the Australian OTC derivatives market and produce assessment reports based on the results. The most recent previous report was published by the regulators in October 2012.[3] In accordance with the main recommendation of that report, a broad-based mandatory trade reporting obligation for OTC derivatives has recently been introduced. The legislative framework and the trade reporting regime are discussed in detail in Chapter 2.

This report constitutes the latest advice from the regulators to the Minister. Based on an assessment of current activity and practices in the Australian OTC derivatives market, the regulators make the following recommendations.

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1 G20 (2009), Leaders' Statement, Pittsburgh Summit, 24–25 September'. Available at <http://g20.org/load/780988012>.

2 G20 (2011), 'Building Our Common Future: Renewed Collective Action for the Benefit of All', Cannes Summit Final Declaration, 4 November. Available at <http://g20.org/load/780986775>.

3 APRA, ASIC and RBA (2012), *Report on the Australian OTC Derivatives Market*, October. Available at <http://www.rba.gov.au/payments-system/clearing-settlement/otc-derivatives/201210-otc-der-mkt-rep-au/index.html>.

1.1 Central Clearing

The regulators are of the view that regulatory and commercial incentives may be effective in driving the industry towards central clearing. Indeed, there is evidence that such an incentives-led transition is underway. The regulators nevertheless consider that there would be benefits to the Australian financial system from adopting an approach – subject to the availability of suitable clearing arrangements – that is consistent with that of overseas regulators, who are proceeding with mandatory clearing across a range of instrument classes.

Accordingly, in addition to considering the case to mandate central clearing of Australian dollar-denominated interest rate derivatives, the largest and most systemically important OTC derivatives market in Australia, the regulators have also specifically considered the case for mandatory clearing of products that are already subject to a clearing obligation in another jurisdiction, namely US dollar-, euro-, British pound- and yen-denominated interest rate derivatives and North American and European referenced credit derivatives.

US dollar-, euro-, British pound- and yen-denominated interest rate derivatives

Collectively, there is material activity in US dollar-, euro-, British pound- and yen-denominated interest rate derivatives in the Australian market. Certain trades in these products by internationally active participants are already caught by the requirements of other jurisdictions and are therefore already, in effect, subject to mandatory clearing. Furthermore, even where this is not the case, the largest Australian banks are already centrally clearing a substantial proportion of their new trades in these products via the client-clearing arrangements they have with participants in the global CCPs. Accordingly, the regulators consider that the incremental regulatory cost of such a mandate for dealers with significant cross-border activities is likely to be low, and that there would be international consistency benefits to determining a mandate for these products.[4]

> **The regulators therefore recommend that the Government consider a central clearing mandate for these products, primarily on international consistency grounds. The initial focus of such a mandate should be dealers with significant cross-border activity in these products. The timing and other aspects of the implementation of any such mandate would be determined in consultation with the relevant authorities in the 'home currency' jurisdiction.**

North American and European referenced credit derivatives

While there is material activity in these products in the Australian market, the regulators have observed a relatively low level of activity in these products among domestic participants, including the large Australian banks. Furthermore, domestic participants are currently unable to directly clear North American and European referenced credit derivatives, and are only clearing to a limited extent via existing client clearing arrangements.

> **Accordingly, the regulators do not see a case for mandating these products at this time.**

However, ahead of the regulators' next market assessment, further information will be sought about Australian market participants' counterparty exposures in these products and the breadth of central clearing of these products. In light of this information, the regulators will revisit this recommendation. In particular, the regulators would be concerned if there were evidence in the Australian market of regulatory arbitrage or if this recommendation affected the outcome of equivalence or comparability assessments, and would respond accordingly.

4 In this context a dealer is an entity that makes a market in OTC derivatives by buying and selling on its own behalf.

Australian dollar-denominated interest rate derivatives

The regulators have previously noted that there would be a substantial benefit from increased central clearing of Australian dollar-denominated interest rate derivatives. To date, however, the regulators have not recommended imposing a mandatory clearing obligation, having favoured an incentives-led transition to central clearing. There is evidence of an increase in central clearing in this market among Australian participants. However, industry progress has been limited by the lack of availability of direct clearing for domestic market participants. While two CCPs have recently received regulatory approval to offer clearing of Australian dollar-denominated interest rate derivatives directly to Australian participants, these participants are still in the process of establishing operational arrangements to directly clear transactions. Furthermore, clearing arrangements for non-dealer financial institutions and other smaller users of OTC derivatives remain relatively limited at this stage.

> **As a result, the regulators will monitor for a further period Australian banks' progress in implementing appropriate clearing arrangements before recommending mandatory central clearing of Australian dollar-denominated interest rate derivatives. The initial scope of any mandate would likely be the interdealer market.**

With two CCPs now offering direct clearing services in this market, the regulators would expect operational arrangements to be largely in place by the end of 2013. The regulators will therefore review the case for mandating clearing of Australian dollar-denominated interest rate derivatives in their next report planned for early 2014.

The regulators also consider that further work should be undertaken to understand the incremental costs and benefits of extending a central clearing mandate to non-dealers. As part of this, in considering the case to mandate clearing by non-financial entities, it will be important to examine implications for the costs to firms of hedging commercial risk.

1.2 Platform Trading

The regulators continue to see in-principle benefits in greater utilisation of trading platforms in the Australian OTC derivatives market. However, it remains unclear how the potential benefits of mandatory platform trading might best be realised. In particular, further consideration needs to be given to what constitutes an acceptable trading venue for these purposes, with relevant rulemaking still in progress in major jurisdictions, and at an early stage elsewhere. Accordingly, the regulators will continue to monitor developments in other jurisdictions and seek more detailed information on activity in the Australian market, with a view to more clearly defining the characteristics of suitable trading platforms. This work should be facilitated by the implementation of mandatory trade reporting in Australia. Consequently, the regulators do not propose to make a recommendation regarding a mandatory platform trading obligation at this time.

1.3 Risk Management for non-Centrally Cleared Trades

The regulators have previously recommended enhancements to participants' risk management practices in a number of areas; specifically around collateralisation, trade compression and portfolio reconciliation. The regulators have since continued to monitor developments in these practices. On collateralisation, the regulators will provide advice to government on the implementation of the forthcoming international principles on margin requirements for non-centrally cleared trades. In addition, to gauge the potential benefits from multilateral trade compression of Australian-dollar denominated interest rate derivatives, the regulators are in the process of analysing the results of a recently completed compression cycle. Based on this analysis, the regulators will consider whether action should be taken to facilitate coordinated participation in such processes. The regulators will also continue to monitor Australian market participants' use of portfolio reconciliation services.

The remainder of this report is structured as follows. Chapters 2 and 3, respectively, provide updates on relevant domestic and overseas regulatory developments. Chapter 4 sets out the regulators' assessment of the Australian OTC derivatives market and discusses the basis of the regulators' recommendations. Chapter 5 describes the next steps.

2. Domestic Regulatory Developments

2.1 Introduction

The regulatory framework for the Australian OTC derivatives market continues to evolve and regulators are monitoring developments in this market on an ongoing basis. Over the last year, legislation has been developed and implemented, establishing a regime for the imposition of mandatory requirements. Work to implement a mandatory reporting requirement has recently been completed and regulators have also articulated their approach to assessing the case for implementing mandatory clearing requirements. The regulators also continue to work towards implementing relevant international standards in Australia.

2.2 October 2012 Report on the Australian OTC Derivatives Market

In October 2012, the regulators published a *Report on the Australian OTC Derivatives Market* (the October 2012 Report).[5] Building on information collected through a survey of market participants undertaken in mid 2012, the report reviewed the risk management practices of market participants in the domestic OTC derivatives market. A particular focus of the report was how market participants were using centralised market infrastructure, such as TRs, CCPs and trading platforms.

The report made a number of recommendations to promote increased use of such infrastructure, as well as suggesting other improvements to risk management in the domestic OTC derivatives market. The key recommendations were that:

- The government should consider a broad-based mandatory trade reporting obligation for OTC derivatives.
- A mandatory clearing obligation for Australian dollar-denominated interest rate derivatives was not necessary at that time. However, it was noted that should substantial industry progress towards central clearing in this class of derivatives not be evident in the near future, the regulators would revisit this recommendation.
- There was potentially scope for further improvements to participants' risk-management practices for non-centrally cleared transactions, particularly with respect to collateralisation, coordinated use of trade compression and increased use of portfolio reconciliation services.
- There were in-principle benefits in greater utilisation of trading platforms. However, further analysis was required before any specific recommendations as to possible platform trading obligations could be made.

It was also noted that the regulators would take into account whether imposing mandatory trade reporting, central clearing or platform trading requirements would support the recognition of Australia's regulatory regime as comparable or equivalent to those of key overseas jurisdictions.

[5] APRA, ASIC and RBA (2012), *Report on the Australian OTC Derivatives Market*, October. Available at <http://www.rba.gov.au/payments-system/clearing-settlement/otc-derivatives/201210-otc-der-mkt-rep-au/index.html>.

2.3 Amendments to the Corporations Act

In December 2012, the *Corporations Legislation Amendment (Derivatives Transactions) Act 2012* was passed, and took effect in January 2013. This legislation inserted a new Part 7.5A into the *Corporations Act 2001*, establishing a regime for the imposition of mandatory requirements in respect of trade reporting, central clearing and platform trading of OTC derivatives.[6]

Under this regime, the responsible Minister may issue a determination that mandatory obligations with respect to trade reporting, central clearing or platform trading should apply to a specified class or classes of derivatives. In making the decision to issue a determination, the Minister must take into account the advice of the regulators and consider:

- the likely effect on the Australian economy, and on the efficiency, integrity and stability of the Australian financial system
- the likely regulatory impact
- in the case of commodity derivatives, the likely impact on any relevant Australian commodities market or markets
- any other matters that the Minister considers relevant, such as relevant international standards and international commitments.

Under this regime, the government may also issue regulations that restrict the product or institutional scope of mandatory requirements, thereby providing temporary or ongoing exemptions in relation to specified products or entities.

Once the Minister has made a determination, ASIC may make Derivative Transaction Rules (DTRs). Such rules set out the details of any requirements, including the institutional scope, product scope (within the specified class(es) of derivatives determined by the Minister), transitional arrangements and the manner and form in which persons must comply with the requirements. In making these rules, ASIC must have regard to the same matters that the Minister is required to consider, and must also consult with APRA and the RBA.[7]

Part 7.5A of the Corporations Act also includes a licensing regime for TRs. ASIC has responsibility for administering this regime and has the power to make Derivatives Trade Repository Rules (DTRRs), which can bind licensed TRs and their officers. To fulfil a mandatory trading obligation under the DTRs, a transaction report must be made to a licensed TR or one that is prescribed by regulation. A class of TRs can also be required by regulation to be licensed in order to operate within the jurisdiction. Under the new regime, ASIC may to some extent rely on the supervision of a foreign TR by a foreign regulatory body if it can satisfy itself that the foreign regulatory regime provides adequate supervision of the foreign TR.

In June 2013, the Corporations Act was further amended by the *Corporations and Financial Sector Legislation Amendment Act 2013*. As part of these changes, amendments were made to enable more effective information-sharing arrangements with overseas regulators, which will facilitate oversight of any cross-border CCPs and TRs that may be licensed to operate in Australia. Changes were also made to support the capacity of CCPs to transfer client positions from a potentially insolvent clearing participant to another clearing participant (so-called portability).

6 *Corporations Act 2001*, Part 7.5A. Available at <http://www.comlaw.gov.au/Series/C2004A00818>.

7 This requirement is subject to a special provision in case of urgency.

2.4 Mandatory Transaction Reporting

Following the regulators' recommendations and the passage of the legislation described above, in December 2012 the Australian Treasury consulted on a proposal that a broad-ranging determination be made requiring the reporting of OTC derivatives to a licensed trade repository, where one is available.[8] Consistent with this proposal, in May 2013 the Minister made a determination covering interest rate, foreign exchange, credit, equity and commodity (excluding electricity) derivatives.[9]

In anticipation of this determination, in March 2013 ASIC consulted on draft DTRs that set out its proposed requirements for the reporting of OTC derivative transactions to licensed or prescribed TRs, including the details of transactions that would need to be reported.[10] Following this consultation, ASIC published these DTRs on 11 July 2013.[11]

In developing these DTRs, ASIC had regard to the design of overseas mandatory reporting requirements, particularly with respect to the specific elements of data to be reported to TRs. In line with some overseas jurisdictions, ASIC requires the reporting of mark-to-market valuations and collateral valuations. Under ASIC's DTRs, reporting is on a next-day basis, with valuations updated when a position is marked to market or collateral is exchanged.

Under the DTRs, both domestic and foreign entities are subject to the reporting requirement, with foreign entities required to report where they are subsidiaries of Australian entities or if they are registered to conduct business in Australia (in the latter case with regard to transactions booked or entered into in Australia). ASIC has implemented a 'two-sided' reporting regime, whereby both parties to a transaction are required to report (however, an entity could delegate this responsibility to a third party). Recognising the cross-border nature of many derivative transactions, ASIC has established a regime of alternative reporting under which entities that are subject to substantially equivalent overseas reporting regimes, may report in accordance with those regimes.

In accordance with Treasury's proposals, ASIC has set out a phased approach to implementation. Major financial institutions (mainly internationally active banks) will be required to report in the first phase, commencing in October 2013, followed by other financial institutions active in OTC derivatives markets, and finally end users (although details of this last phase will be subject to further consultation).

2.5 Licensing of Central Counterparties and Trade Repositories

As discussed in the October 2012 Report, the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) finalised a set of strengthened international standards for payment systems, CCPs, securities settlement systems, centralised securities depositories and TRs in April 2012.[12]

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8 Treasury (2012), *Implementation of Australia's G-20 Over-the-Counter Derivatives Commitments: Proposals Paper*, December. Available at <http://www.treasury.gov.au/~/media/Treasury/Consultations%20and%20Reviews/2012/G20%20OTC%20derivatives%20commitments/Key%20Documents/PDF/Proposal_Paper.ashx>.

9 *Corporations (Derivatives) Determination 2013*. Available at <http://www.comlaw.gov.au/Details/F2013L00819>.

10 ASIC (2013), *CP 205: Derivative Transaction Reporting*, March. Available at <http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/cp205--published-28-March-2013.pdf/$file/cp205--published-28-March-2013.pdf>.

11 *ASIC Derivative Transaction Rules (Reporting) 2013* Available at <http://www.comlaw.gov.au/Details/F2013L01345>.

12 CPSS-IOSCO (2012), *Principles for Financial Market Infrastructures*, Bank for International Settlements, April. Available at <http://www.bis.org/publ/cpss101a.pdf>.

In February 2013, ASIC and the RBA released a joint statement explaining how the two regulators are implementing the Principles for Financial Market Infrastructures (PFMIs) in Australia.[13] Under the Corporations Act, ASIC and the RBA have co-regulatory responsibility for CCPs (and other clearing and settlement facilities). The RBA is responsible for ensuring that clearing and settlement facilities' operations promote financial stability, while ASIC is responsible for ensuring compliance with the remaining obligations of clearing and settlement facilities under the Corporations Act, including, notably, the obligation to provide clearing services in a fair and effective way. In order to implement the PFMIs in respect of CCPs, ASIC has revised the relevant regulatory guide and the RBA has determined new Financial Stability Standards, which came into effect in March 2013.[14] In doing so, ASIC and the RBA have also sought to reflect the Council of Financial Regulators' (the Council's) approach to ensuring appropriate influence for Australian regulators over cross-border clearing and settlement facilities.[15]

Currently, two domestic CCPs – ASX Clear and ASX Clear (Futures) – and one overseas CCP – LCH.Clearnet Limited (LCH) – are licensed in Australia.[16] Two of these CCPs have recently received regulatory approval to offer central clearing of OTC interest rate derivatives in Australia. At the end of June 2013, ASX Clear (Futures) received regulatory approval to launch a dealer-to-dealer service for Australian dollar-denominated interest rate derivatives.[17] ASX Clear (Futures) expects to begin onboarding foundation customers over the coming months. It has also signalled its plan to launch a client clearing service and expand its service to clear New Zealand dollar-denominated interest rate derivatives by the end of 2013. On 2 July 2013, a variation to LCH's licence was approved, allowing LCH to offer its SwapClear service in Australia.[18] SwapClear is a central clearing service for interest rate derivatives denominated in 17 different currencies, including the Australian dollar. While a number of overseas-domiciled entities that provide financial services in Australia are already direct members of LCH, the licence variation allows domestic entities to participate directly in the SwapClear service.

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13 The joint statement is available on the ASIC website at <http://www.asic.gov.au/asic/asic.nsf/byheadline/Implementing-the-CPSS–IOSCO-Principles-for-financial-market-infrastructures-in-Australia?openDocument>.

14 ASIC (2012), *Regulatory Guide 211: Clearing and Settlement Facilities: Australian and Overseas Operators*, December. Available at <http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/rg211-published-18-december-2012.pdf/$file/rg211-published-18-december-2012.pdf>. RBA (2012), *Financial Stability Standards for Central Counterparties*, December. Available at <http://www.rba.gov.au/payments-system/clearing-settlement/standards/central-counterparties/2012/index.html>.

15 This proposed approach was set out in Council of Financial Regulators (2012), *Ensuring Appropriate Influence for Australian Regulators over Cross-border Clearing and Settlement Facilities*, July. Available at <http://www.treasury.gov.au/ConsultationsandReviews/Submissions/2012/cross-border-clearing>.

16 On 10 April 2013 the Minister announced that he had granted a clearing and settlement facility licence to LCH, permitting it to clear commodity, energy and environmental derivatives traded on the market operated by FEX Global Pty Ltd. The announcement is available at <http://ministers.treasury.gov.au/DisplayDocs.aspx?doc=pressreleases/2013/025.htm&pageID=003&min=brs&Year=&DocType=>.

17 ASX 24 Notice No. 120/13, 'ASX Launches OTC Interest Rate Derivatives Clearing', 28 June 2013. Available at <http://www.sfe.com.au/content/notices/2013/notice2013_120.pdf>.

18 Parliamentary Secretary to the Treasurer (2013), 'Government Approves LCH.Clearnet Limited to Clear Over-the-counter (OTC) Interest Rate Derivatives', Media Release, 2 July. Available at <http://ministers.treasury.gov.au/DisplayDocs.aspx?doc=pressreleases/2013/022.htm&min=bfr&DocType=>.

In developing its new licensing regime for TRs, ASIC has had regard to the PFMIs. In March 2013, ASIC consulted on draft DTRRs and guidance, setting out its proposed approach to licensing TRs.[19] By implementing the PFMIs, ASIC intends to ensure consistency with overseas TR regimes. It is anticipated that this will enable Australian licensed TRs to more readily seek recognition or licensing overseas, while also facilitating the licensing of overseas TRs in Australia. Following this consultation, these DTRRs were published on 11 July 2013.[20]

2.6 Regulators' Statement on Assessing the Case for Mandatory Central Clearing

To give market participants and international regulatory peers more clarity around how the regulators will assess the case for introducing clearing mandates, in May 2013 the regulators published a *Statement on Assessing the Case for Mandatory Central Clearing* (the Statement).[21] The Statement acknowledges the potential benefits of central clearing as an effective way of enhancing the efficiency, integrity and stability of financial markets. The Statement also sets out how the regulators will monitor developments in the Australian OTC derivatives market, and the criteria that the regulators will apply when advising to the Minister under the Corporations Act. It also sets out the process by which the regulators will carry out periodic surveys of the Australian OTC derivatives market and produce assessment reports (such as this report) based on the results of these surveys. The Statement notes that in the initial phase of implementation it is intended that these reports be produced on a semiannual basis.

The Statement identifies the factors that the regulators will consider when prioritising the assessment of products, namely the relative systemic importance of the products, whether the product is already under a clearing obligation in another jurisdiction, and whether the product is designed as a deliberate attempt to avoid an existing clearing obligation. The Statement also notes that a number of preconditions must be satisfied in order for a CCP to clear a product safely and reliably.

In assessing products that have been prioritised, the regulators will consider the case for a clearing mandate with reference to both domestic and international factors. In terms of the implications for the Australian financial system and participants, the regulators will consider the following:

- The extent to which market participants are already centrally clearing that product.
- The availability or accessibility of central clearing of that product for different types of Australian market participants, whether as direct participants or as clients.
- Whether participants have already established appropriate commercial and operational arrangements with CCPs or whether such arrangements are still under negotiation for particular types of participants.
- Evidence of commercial pressure or regulatory incentives to centrally clear that product (which may include regulatory incentives as a result of the cross-border reach of regulation in other jurisdictions).

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19 ASIC (2013), *CP 201: Derivative Trade Repositories*, March. Available at <http://www.asic.gov.au/cp>.

20 ASIC (2013), *RG 249: Derivative Trade Repositories*, July. Available at <http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/rg249-published-11-July-2013.pdf/$file/rg249-published-11-July-2013.pdf>.

21 APRA, ASIC and RBA (2013), *Australian Regulators' Statement on Assessing the Case for Mandatory Clearing Obligations*, May. Available at <http://www.cfr.gov.au/publications/cfr-publications/australian-auth-statmnt-mandatory-clearing-obligations.html>.

The regulators have also identified the following international consistency considerations:

- In the absence of broadly harmonised requirements, there may be potential for regulatory arbitrage or other distortions in market participants' choices as to where to conduct business or book their trades. Accordingly, relying on incentives while other jurisdictions adopt central clearing mandates could create reputational risks for Australia.
- It could also affect other jurisdictions' assessment of the equivalence or comparability of the Australian regime, thereby disadvantaging Australian-based participants in their international activities.
- Where a product was subject to a mandate overseas but not in Australia, overseas requirements may have unintended consequences for Australia, due to differences in market structure and conditions. An Australian mandate could, in such circumstances, better tailor requirements to the Australian context, while not compromising broad equivalence with overseas jurisdictions' regimes.

2.7 Capital Requirements for Exposures to Central Counterparties

As anticipated in the October 2012 Report, APRA implemented the Basel III reforms in respect of counterparty credit risk in January 2013, including interim rules on bank exposures to CCPs.[22] International work is ongoing to develop and improve this aspect of the capital framework. Basel III is consistent with the G20 commitment that non-centrally cleared OTC derivatives should be subject to higher capital requirements, which creates an incentive for banks to centrally clear transactions.

Under Basel III, an authorised deposit-taking institutions' (ADIs') exposures to 'qualifying' CCPs is subject to much lower risk weights (2 per cent) than bilateral counterparty exposures. While an ADI's exposures to its clients' trades that are cleared through a qualifying CCP are treated as bilateral trades, they are subject to lower capital requirements than other bilateral trades. However, if a CCP is not deemed a qualifying CCP, exposures are risk-weighted according to the creditworthiness of the non-qualifying CCP using APRA's standardised credit risk framework.

These rules specify that a qualifying CCP is a licensed CCP that is based and prudentially supervised in a jurisdiction where the relevant regulator or overseer has established, and publicly indicated that it applies to the CCP on an ongoing basis, domestic rules and regulations that are consistent with the PFMIs. Through an exchange of letters, in April 2013 the regulators confirmed that APRA considers ASX Clear and ASX Clear (Futures) – the only Australian-licensed domestic CCPs – to be qualifying CCPs.[23]

With the G20 commitments encouraging ADIs to consider expanding their participation in CCPs, APRA published a letter outlining its policies regarding ADI membership of CCPs in June 2013.[24]

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22 See Prudential Standard APS 112, *Capital Adequacy: Standardised Approach to Credit Risk*. Available at <http://www.apra.gov.au/adi/PrudentialFramework/Documents/121109_APS_112.pdf>.

23 See ASIC and RBA letter to APRA, 'Qualifying Central Counterparties – ASX Clear and ASX Clear (Futures)', available at <http://www.cfr.gov.au/publications/member-publications/pdf/letter-qccp-status-asic-rba-to-apra.pdf>, and APRA's response, available at <http://www.cfr.gov.au/publications/member-publications/pdf/letter-qccp-status-apra-response.pdf>.

24 See APRA letter to ADIs, 'Membership of Central Counterparties'. Available at <http://www.apra.gov.au/adi/PrudentialFramework/Documents/130604-Letter-to-ADIs-re-CCPs.pdf>.

3. International and Overseas Regulatory Developments

3.1 Introduction

Work on finalising international standards and guidance relevant to OTC derivatives markets is ongoing. International bodies are placing increasing emphasis on implementation issues, including by coordinating regulatory efforts and addressing regulatory conflicts. At the same time, individual jurisdictions remain in the process of implementing reforms, with overseas regulatory authorities finalising rules, technical standards and guidance in their respective jurisdictions.

3.2 International Developments

3.2.1 Implementation monitoring

At the request of the G20 leaders, the Financial Stability Board (FSB) continues to monitor individual jurisdictions' progress in implementing the G20 commitments. To this end, the FSB has so far published five progress reports; a sixth report is expected later this year. These reports encourage consistent, effective and timely implementation of reforms to OTC derivatives markets. They also serve as a vehicle for discussion of the practical challenges faced by jurisdictions – both individually and collectively – in implementing the reforms.

The Fifth Progress Report – published in April 2013, shortly after the end 2012 deadline for implementing the G20 commitments – focused on the status of international policy development, implementation of national and regional legislation and regulations, and assessed progress in the practical implementation of the G20 commitments.[25] In this report, the FSB noted that member jurisdictions are fully committed to completing the agreed reforms, and maintained that any necessary reforms to regulatory frameworks should be made without delay. It was also noted that, at the global level, the Bank for International Settlements (BIS) is coordinating a macroeconomic impact assessment of the OTC derivatives regulatory reforms, to which representatives of the Australian regulators are contributing.

With respect to trade reporting, the FSB identified three issues that are limiting progress:

- *Ensuring that necessary data are reported to a TR*. In particular, the FSB identified the issue that reporting a counterparty's identity may be limited by domestic privacy laws, blocking statutes, confidentiality provisions and other domestic laws.
- *Ability to aggregate TR-held data*. There is a risk of data fragmentation across TRs, with different data fields and formats used by TRs for collecting data presenting challenges in aggregating and comparing data. To address this, the FSB recently announced a feasibility study of options for aggregating information from TRs and sharing such information among authorities.[26] The results of this study are expected to be published in the first half of 2014.
- *Authorities' access to data*. The FSB noted that international guidance on authorities' access to the data in TRs was still to be finalised.

25 FSB (2013), *OTC Derivatives Market Reforms: Fifth Progress Report on Implementation*, April. Available at <http://www.financialstabilityboard.org/publications/r_130415.pdf>.

26 FSB Press release, 'Meeting of the Financial Stability Board in Basel on 24 June', 25 June 2013. Available at <http://www.financialstabilityboard.org/press/pr_130625.pdf>.

In relation to central clearing, the FSB found the following to be relevant to jurisdictions' progress in meeting the reform objectives:

- *Insufficient standardisation*. Some jurisdictions consider that the OTC derivatives products traded in their markets are not sufficiently standardised for central clearing to be viable.
- *Availability of CCPs*. Some jurisdictions face practical difficulties in implementation because no CCP is available for domestic market participants, or only indirect access is available. The FSB noted that authorities need to ensure that CCPs in their jurisdictions provide fair and open access to domestic and cross-border market participants, and eliminate any unnecessary or inappropriate barriers to cross-border access to clearing services.
- *Use of incentives*. Some jurisdictions have indicated that they expect central clearing of standardised OTC derivatives to occur in their jurisdictions without mandatory obligations, due in part to the various incentives that market participants will face.

In terms of incentives, the FSB noted the risk that incentives alone may not be sufficient to achieve the goal that all standardised derivatives be centrally cleared. Therefore the FSB stated that:

> Jurisdictions that do not initially intend to adopt mandatory requirements, because they expect that capital, margin and other incentives will be effective in achieving central clearing of all standardised derivatives, should clearly articulate a timetable, criteria and thresholds for deciding in which cases mandatory requirements would be adopted to achieve G20 goals.

The FSB also highlighted the risk that jurisdictions that have applied mandatory requirements may not regard a regime that relies on incentives as equivalent. Relatedly, the report also highlighted the uncertainty about the treatment of cross-border activity, and urged jurisdictions to clarify their respective approaches and resolve any conflicts and inconsistencies as quickly as possible to provide certainty to stakeholders. This was reiterated by the G20 Finance Ministers and Central Bank Governors after their April 2013 meeting.[27]

Finally, the FSB noted that very few jurisdictions had implemented requirements around trading standardised OTC derivatives contracts on exchanges or electronic trading platforms. In general, jurisdictions have been focused on implementing reporting and clearing requirements, and many argue that further analysis of market liquidity is required before trading requirements can be implemented.

3.2.2 Cross-border issues

In response to concerns such as those expressed by the FSB and G20, a group of 12 OTC derivatives market regulators (including ASIC), known as the OTC Derivatives Regulators Group (ODRG), has been meeting to identify and explore ways to address issues and uncertainties in the application of rules in a cross-border context. The meetings have sought to:

- identify gaps and reduce the potential for regulatory arbitrage
- identify inconsistent or duplicative requirements and attempt to reduce the regulatory burden associated with such requirements
- develop concrete and practical solutions with respect to any conflicting application of rules.

[27] G20 (2013), *Communique*, Meeting of Finance Ministers and Central Bank Governors, Washington, 18–19 April. Available at <http://g20.org/load/781302507>.

In April 2013, the ODRG reported its progress to the G20, highlighting three key areas of agreement:

- that a 'stricter rule applies' approach should be taken to addressing gaps between the laws of different jurisdictions in respect of clearing and trading obligations
- that members of the ODRG would share information including on the scope of, conditions on, and approach to substituted compliance, equivalence or recognition
- that members would consult with each other prior to finalising mandatory clearing requirements, and that other authorities would consider whether to impose similar mandatory requirements in their own jurisdictions.[28]

In response, the G20 called upon the ODRG to provide the FSB with specific and practical recommendations to resolve remaining cross-border conflicts, inconsistencies, gaps and duplicative requirements by September 2013. The ODRG continues to work towards meeting this request.

Relatedly, on 11 July 2013 the United States (US) Commodity Futures Trading Commission (CFTC) and the European Commission (EC) announced a common approach to regulating cross-border OTC derivatives activity.[29] The CFTC and EC acknowledged that their respective rules are sometimes different, and that the compliance dates are not necessarily aligned. They agreed to implement their respective rules and regulations in a manner that addresses conflicts, inconsistencies, and uncertainty to the greatest extent possible and is consistent with international legal principles. Some of these issues were addressed by the CFTC issuing four no-action letters that provide certain entities with targeted relief from its requirements.[30]

3.2.3 Margin requirements for non-centrally cleared derivatives

In response to the November 2011 G20 commitment, the Basel Committee on Banking Supervision (BCBS) and IOSCO, in consultation with the Committee on the Global Financial System (CGFS) and CPSS, have continued to work on developing international standards for the margining of non-centrally cleared OTC derivatives (i.e. transactions that remain bilateral between counterparties). In February 2013, the Working Group on Margin Requirements (WGMR) issued near-final principles for a second round of consultation.[31] The purpose of margin requirements for non-centrally cleared derivatives is to reduce contagion and spillover effects from the default of a derivatives counterparty by ensuring that collateral is available to offset any losses that arise. By bringing bilateral risk management practices more into line with CCP practices, margin requirements for non-centrally cleared transactions will enhance transparency and aid risk comparisons, and accordingly should promote central clearing for those transactions that meet the preconditions for safe and reliable clearing.

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[28] ODRG (2013), *Report to the G-20 Meeting of Financial Ministers and Central Bank Governors of 18–19 April 2013*. Available at <http://ec.europa.eu/internal_market/financial-markets/docs/derivatives/130418_odrg-report-g20_en.pdf>.

[29] CFTC (2013), 'The European Commission and the CFTC Reach a Common Path Forward on Derivatives', Press Release PR6640-13, 11 July. Available at <http://www.cftc.gov/PressRoom/PressReleases/pr6640-13>.

[30] CFTC (2013), 'CFTC Staff Issues Four No-Action Letters Providing Relief in Connection with Issues Relating to Swaps Regulation', Press Release PR6642-13, 11 July. Available at <http://www.cftc.gov/PressRoom/PressReleases/pr6642-13>.

[31] BCBS-IOSCO (2013), *Margin Requirements for Non-centrally Cleared Derivatives – Second Consultative Document* February. Available at <http://www.bis.org/publ/bcbs242.pdf>.

The near-final principles require that all financial firms and systemically important non-financial entities exchange initial margin (which reflects potential future exposure) and variation margin (which reflects changes in current exposure) on a regular basis (e.g. daily). To ensure that exposures are covered with a high degree of confidence, the principles specify that initial margin must be calculated using an approved internal model or a standardised margin schedule.

While the principles are near-final, in the latest round of consultation the WGMR sought feedback on whether:

- foreign exchange derivatives should be exempt from initial margin requirements, with the requirement to exchange variation margin specified in separate guidance (which is described below)
- rehypothecation of a customer's assets posted as margin to finance or hedge that customer's position should be permitted under strict conditions designed to protect the customer
- the proposed phase-in arrangements are appropriate
- there are any comments on the accuracy or applicability of the results of the Quantitative Impact Study used to assess the liquidity costs of margin requirements.

The WGMR has concluded this consultation and is in the process of finalising the principles.

3.2.4 Guidance on foreign exchange risks

As noted above, the work of the WGMR with respect to foreign exchange derivatives to some extent overlaps with BCBS guidance on managing risks associated with the settlement of foreign exchange transactions. This guidance, which was finalised in February 2013, covers principal risk, replacement cost risk, liquidity risk, operational risk, legal risk and capital requirements for foreign exchange transactions.[32] In line with the WGMR's near-final recommendations, this guidance suggests that variation margin should be exchanged daily.

3.2.5 Authorities' access to trade repository data

As noted in the FSB's Fifth Progress Report, international guidance on appropriate access by authorities to the data in TRs is still to be finalised. In April 2013, CPSS and IOSCO published a consultative report containing draft guidance for TRs and authorities on authorities' access to data held in TRs.[33] A functional approach is proposed, whereby authorities' access to data is determined according to their mandates and responsibilities. Using this approach, the report maps typical mandates to the proposed level of access. The report also sets out possible approaches to addressing confidentiality concerns and access constraints. The regulators expect that this guidance will be finalised in the near future.

3.2.6 Legal entity identifiers

Legal entity identifiers (LEIs) enable a counterparty to be uniquely and consistently identified, which (along with a number of other potential benefits) is important when analysing data reported to TRs. The global LEI system is being implemented by the FSB, with the endorsement of the G20. Over the last year, the FSB has established a three-tier structure for the global LEI system, which consists of:

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[32] BCBS (2012), *Supervisory Guidance for Managing Risks Associated with the Settlement of Foreign Exchange Transactions*, February. Available at <http://www.bis.org/publ/bcbs241.pdf>.

[33] CPSS-IOSCO (2013), *Authorities' Access to Trade Repository Data*, April. Available at <http://www.bis.org/publ/cpss108.pdf>.

- a Regulatory Oversight Committee, responsible for oversight and governance of the system (of which ASIC is a member)[34]
- a Central Operating Unit, with responsibility for ensuring globally consistent operational standards and protocols are applied
- Local Operating Units, which are responsible for local implementation of the LEI system, including validation and maintenance of certain data.

The FSB and Regulatory Oversight Committee are now working towards establishing an LEI foundation, which it is proposed will be based in Switzerland and will manage the operating units.[35]

The work to establish LEIs is complemented by industry initiatives, particularly those of the International Swaps and Derivatives Association and the Global Financial Markets Association, to provide Unique Product Identifiers and Unique Transaction/Swap Identifiers that would facilitate data aggregation and effective use of reported data.

3.2.7 Exposures to central counterparties

Capital requirements

As the BCBS flagged in its July 2012 announcement of interim rules on capital requirements, further work is required to develop and improve the capital framework for bank exposures to CCPs.[36] This work is being undertaken by a joint BCBS, CPSS and IOSCO taskforce, which is currently consulting on revised rules.[37] In the meantime, the BCBS has released answers to frequently asked questions regarding the interpretation of the interim approach.[38]

Large exposure limits

Relatedly, in March 2013 the BCBS published a consultation paper on large exposure limits. These limits are designed to act as a backstop to risk-based capital requirements, by protecting banks from substantial losses caused by the sudden default of a major counterparty.[39] In recognition of the unique role of CCPs, the BCBS sought feedback on whether exposures to CCPs should be subject to a limit. In doing so, the BCBS acknowledged that if such a limit was to apply it would need to take into account:

- the potential conflict with the G20 commitment to centrally clear all standardised OTC derivatives
- that imposing excessively tight limits might cause the CCP to reduce initial margin and default fund requirements, thereby making the CCP less resilient.

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34 FSB (2012), *Charter of the Regulatory Oversight Committee for the Global Legal Entity Identifier (LEI) System*, November. Available at <http://www.financialstabilityboard.org/publications/r_121105c.pdf>.

35 For more information, see FSB (2013), *Fifth Progress Note on the Global LEI Initiative*, January. Available at <http://www.financialstabilityboard.org/publications/r_130111a.htm>.

36 BCBS (2012), *Capital Requirements for Bank Exposures to Central Counterparties*, July. Available at <http://www.bis.org/publ/bcbs227.pdf>.

37 BCBS (2013), *Capital Treatment of Bank Exposures to Central Counterparties*, July. Available at <http://www.bis.org/publ/bcbs253.pdf>.

38 BCBS (2012), *Basel III Counterparty Credit Risk and Exposures to Central Counterparties – Frequently Asked Questions*, December. Available at <http://www.bis.org/publ/bcbs237.htm>.

39 BCBS (2013), *Supervisory Framework for Measuring and Controlling Large Exposures*, March. Available at <http://www.bis.org/publ/bcbs246.pdf>.

3.3 Developments in Other Jurisdictions

As described above, there is an increasing focus on the need to coordinate regulatory efforts and address regulatory conflicts. The Australian OTC derivatives market is highly internationalised, with a large proportion of activity involving overseas-domiciled dealers. In addition, a number of Australian-domiciled dealers have substantial operations in offshore markets. Because of this, a large amount of activity undertaken in Australia, or that involves an Australian-based counterparty, will fall within the scope of regulatory regimes covering OTC derivatives markets developed in overseas jurisdictions, particularly in the European Union (EU) and US. It is therefore important to understand how the design of these regimes is affecting the Australian OTC derivatives market.

3.3.1 United States

For the US, the G20 commitments on OTC derivatives (referred to as swaps in the US) are implemented via Title VII of the *Dodd-Frank Wall Street Reform and Consumer Protection Act 2010* (the Dodd-Frank Act).[40] The Dodd-Frank Act places broad requirements on participation in the OTC derivatives market, but requires the CFTC and Securities Exchange Commission (SEC) to write rules to implement the details of the regime.

CFTC

The CFTC has completed the majority of its rule-making, and mandatory obligations with respect to trade reporting and central clearing are now in force. As of February 2013, swap dealers and major swap participants are required to report to swap data repositories (the US term for TRs), which are required in turn to publicly report swap data. Reporting by all market participants, including financial entities and non-financial entities, will be phased in during 2013. From March 2013, swap dealers and major swap participants are required to centrally clear four classes of interest rate derivatives (those denominated in the US dollar, euro, British pound and yen) and two classes of credit derivatives (North American and European untranched credit default swap indices).[41] The scope of this mandatory clearing obligation was extended to most financial entities in June 2013, and will be extended to third-party investment managers and pension plans from September 2013.

Banks that have provisionally registered as swap dealers or major swap participants are, under the CFTC's recently finalised cross-border guidance, eligible to apply to the CFTC for an assessment of the comparability of their home regime.[42] If their home regime is deemed comparable, the CFTC's substituted compliance regime permits non-US swap dealers and non-US major swap participants (and in some cases, foreign branches of US swap dealers) to comply with the requirements of their home jurisdictions (or in the case of foreign branches, local jurisdictions), under certain circumstances. However, under the cross-border guidance, substituted compliance is not available for transaction-level requirements (e.g. mandatory clearing) for trades involving a US person. Transaction-level requirements generally do not apply to transactions between two non-US persons.

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40 *Dodd-Frank Wall Street Reform and Consumer Protection Act 2010*. Available at <http://www.cftc.gov/ucm/groups/public/@swaps/documents/file/hr4173_enrolledbill.pdf>.

41 It should be noted that the US Treasury has determined foreign exchange swaps and forwards should not be regulated as swaps for Title VII purposes.

42 CFTC, Fact Sheet, 'Interpretive Guidance and Policy Statement Regarding Compliance with Certain Swap Regulations', 12 July 2013. Available at <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/crossborder_factsheet_final.pdf>.

Australian regulators are in ongoing dialogue with the CFTC regarding the implications of their rules for Australian entities. While the five largest Australian banks have provisionally registered as non-US swap dealers, under the terms of an exemptive order issued by the CFTC on 12 July 2013 they are able to take advantage of relief from some of the CFTC's requirements until 30 days after the CFTC makes its substituted compliance determination on the Australian regime, or at the latest 21 December 2013.[43] In order to take full advantage of this relief, these Australian banks need to comply with a number of Dodd-Frank record keeping requirements for OTC derivatives transactions until Australian trade reporting requirements commence.

In addition, the CFTC issued a number of no-action letters in late June 2013 granting time-limited relief under specific circumstances from a range of CFTC requirements, including portfolio reconciliation and the reporting of certain data to TRs. For example, in recognition of privacy, secrecy and blocking laws in specific overseas jurisdictions (of which Australia is not one), under certain circumstances, entities subject to the CFTC's trade reporting requirements will not have to reveal the identity of counterparties from these jurisdictions when reporting to TRs until 30 June 2014.[44]

With respect to financial market infrastructures, the CFTC rules governing designated clearing organisations would, absent any exemptions, apply to foreign CCPs operating in the US or clearing products under a US clearing mandate.

SEC

The SEC's rule-making applies to 'security-based swaps', which include swaps tied to a single security, loan, or issuer of securities, a narrow-based security index, or the occurrence of certain events relating to an issuer of securities or the issuers of securities in a narrow-based security index. The SEC continues to develop its rules, including proposed rules which apply to cross-border security-based swap activities. Under these proposed rules, foreign securities-based swap dealers would be required to register and comply with SEC rules unless substituted compliance was permitted.

3.3.2 European Union

In the EU, three pieces of legislation together form the primary means for implementing the G20 commitments on OTC derivatives: the European Market Infrastructure Regulation (EMIR); the proposed recast *Markets in Financial Instruments Directive* (MiFID II); and the proposed *Markets in Financial Investments Regulation* (MiFIR).[45] In June 2013, the EU also adopted legislation implementing the Basel III framework, including capital requirements for exposures to CCPs.[46]

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43 CFTC (2013), 'Exemptive Order Regarding Compliance with Certain Swap Regulations', Federal Register, 12 July. Available at <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/federalregister071213.pdf>.

44 CFTC (2013), Letter to Robert Pickel, Chief Executive Officer, International Swaps and Derivatives Association, 28 June. Available at <http://www.cftc.gov/ucm/groups/public/@lrlettergeneral/documents/letter/13-41.pdf>.

45 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, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32012R0648:EN:NOT>, and the Commission's proposals for a recast MiFID directive and a MiFIR Regulation dated 20 October 2011, which are available at <http://ec.europa.eu/internal_market/securities/isd/mifid/index_en.htm>.

46 Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms. Available at <http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2013:176:SOM:EN:HTML>.

EMIR

EMIR provides for the imposition of mandatory requirements to report and centrally clear OTC derivatives transactions, while also imposing specific risk mitigation requirements in respect of contracts that are not centrally cleared. EMIR also imposes requirements on CCPs and TRs. In late 2012, the EC adopted a series of regulatory and technical standards developed by the European Securities and Markets Authority (ESMA), which give effect to these requirements. While these standards came into effect in March 2013, a number of the substantive provisions are not expected to be effective until 2014. For example, ESMA recently indicated that trade reporting obligations under EMIR are not expected to commence until 1 January 2014.[47] The key remaining area in which technical standards are still to be finalised is the cross-border application of EMIR.

At the same time, the EC has requested technical advice from ESMA on foreign regimes, covering:

- the equivalence of the legal and supervisory regime for CCPs
- the equivalence of the legal and supervisory regime for TRs
- potential duplicative or conflicting requirements with regards to clearing obligations, reporting obligations and risk management requirements for non-centrally cleared OTC derivatives transactions.[48]

This advice will be used by the EC to determine which parts of foreign regimes are sufficiently equivalent, the outcome of which will affect foreign CCPs, TRs and participants in OTC derivatives markets in different ways:

- *CCPs and TRs*: A positive assessment is one of the preconditions for non-EU CCPs and TRs to apply to ESMA for recognition under EMIR, in order to provide services to EU-based financial institutions. Non-EU CCPs that wish to provide such services must apply for recognition by 15 September 2013, which will trigger up to a further 210 days of transitionary relief while ESMA processes the application.
- *OTC derivatives markets participants*: A positive assessment would permit trades executed between an EU and a non-EU participant to be regulated under either regime, removing the risk of a conflict of laws.

The Australian regulators are in close dialogue with ESMA and the EC in relation to the equivalence assessment of the Australian regime, with ESMA's advice due by 1 October 2013 (but not necessarily published prior to a decision by the EC on equivalence).

MiFID II/MiFIR proposals

Together, the proposed MiFID II directive and the proposed MiFIR regulation are intended to provide for the implementation of the G20 commitment that standardised derivatives should be traded on exchanges or electronic trading platforms. They define the trading venues on which sufficiently liquid derivatives must be traded, as well as the pre- and post-trade transparency requirements for such venues. At this stage, the EU authorities are still debating these proposals and in due course ESMA will develop the technical standards that would give such requirements effect.

[47] ESMA 'EMIR Indicative Timeline – Last Updated 5 July 2013'. Available at <http://www.esma.europa.eu/page/European-Market-Infrastructure-Regulation-EMIR>.

[48] Letter from EC to ESMA, 'Commission extends deadline for ESMA's equivalence work under EMIR'. Available at <http://www.esma.europa.eu/system/files/2013_14_june_2013_letter_esma.pdf>.

3.3.3 Japan

In November 2012, a Japanese Government ordinance took effect requiring the central clearing of yen-denominated interest rate derivatives referencing LIBOR and credit derivatives referencing Japanese based indices (i.e. the iTraxx Japan Index Series). The ordinance provided for a transition period, which ended in April 2013. The mandatory clearing requirements initially apply to transactions between large domestic financial institutions that are members of the Japan Securities Clearing Corporation. By November 2014, the Japanese Government will also consider whether the central clearing requirements should be applied to transactions between domestic and foreign financial institutions. As of 1 April 2013, a mandatory trade reporting regime has also commenced in Japan. The legislation to implement mandatory platform trading requirements in Japan was promulgated in May 2012, but at this stage the Japanese authorities are monitoring industry developments before developing the rules required to implement such requirements.

3.3.4 Other jurisdictions

Outside the US, Europe and Japan, implementation of the G20 commitments is generally less advanced. The vast majority of jurisdictions have adopted applicable legislation, but implementing regulations have generally not yet taken effect.[49]

Within the Asian region, Singapore has amended the *Securities and Futures Act* to establish a regime to mandate central clearing and trade reporting, as well as a licensing regime for TRs. This Act was passed into law in November 2012.[50] On trade reporting, Singapore is consulting on implementing requirements in 2013, and expects reporting requirements to commence in the fourth quarter of 2013.

Hong Kong's proposed legislative amendments to facilitate the G20 commitments will be introduced to its Legislative Council in July.[51] Until the legislation is passed, the Hong Kong Monetary Authority will impose interim trade reporting requirements on licensed banks.

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49 For a summary of national progress of OTC derivatives market reforms, see Table 1 of FSB (2013), *OTC Derivatives Market Reforms: Fifth Progress Report on Implementation*, April. Available at <http://www.financialstabilityboard.org/publications/r_130415.pdf>.

50 *Securities and Futures Act.* Available at <http://statutes.agc.gov.sg/aol/search/display/view.w3p;page=0; query=DocId%3A25de2ec3-ac8e-44bf-9c88-927bf7eca056%20Depth%3A0%20ValidTime%3A17%2F01%2F2012%20 TransactionTime%3A01%2F04%2F2006%20Status%3Ainforce;rec=0>.

51 Hong Kong SAR Government, Press release 'Securities and Futures (Amendment) Bill 2013 Gazetted Today', 28 June 2013. Available at <http://www.info.gov.hk/gia/general/201306/28/P201306280291.htm>.

4. Assessment and Recommendations

4.1 Introduction

As described in Chapter 2, in Australia the legislative framework to implement the G20 commitments is now in place, the regulatory rule-making process to implement a broad-based trade reporting mandate has recently been completed, and higher capital requirements for non-centrally cleared trades have been introduced. To date, the regulators have not recommended imposing a mandatory clearing obligation, having favoured an incentives-led transition to central clearing. Recently, however, partly in response to the FSB's call for clarity as to the 'timetable, criteria and thresholds for deciding in which cases mandatory requirements would be adopted', the regulators issued a statement (described in Chapter 2) setting out a framework to assess the case for recommending such a mandate. As foreshadowed in the Statement, this Chapter focuses principally on central clearing, considering in some detail matters such as transitional and timing issues, the degree to which the Australian markets have already moved (or are anticipated to move) to central clearing, Australian market participants' operational readiness for central clearing, and the incremental costs and benefits of a mandated transition.

In the October 2012 Report, the regulators also considered platform trading, but did not make specific recommendations on obligations in this area. Recommendations were, however, made on risk management for non-centrally cleared trades, including collateralisation of such trades, which is considered both by the FSB and the regulators to be important to the ongoing resilience of the financial system.[52] These elements of the reform program are also considered in this Chapter.

In conducting their assessment, the regulators have drawn on both quantitative and qualitative information. The regulators continue to monitor developments through ongoing discussions with market participants and financial market infrastructure providers and, as in previous assessments (in October 2012 and May 2009), have also been informed by a survey of market participants' OTC derivatives market activities and practices, administered in March 2013. The current survey considered Australian dollar-, US dollar-, euro-, British pound- and yen-denominated interest rate derivatives, as well as certain North American and European referenced credit derivatives. In addition, respondents were asked about their level of engagement with CCPs that clear OTC derivatives, as well as their use of trade execution infrastructure and their risk management practices for non-centrally cleared trades.[53] To supplement the written survey, the regulators held meetings with a representative sample of dealers and other OTC derivatives market participants. In addition to data from the survey, the assessment drawn on OTC derivatives markets data collected and published by the BIS, the Australian Financial Markets Association (AFMA), CME and LCH.[54]

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52 FSB (2013), *OTC Derivatives Market Reforms: Fifth Progress Report on Implementation*, April, pp 60–61. Available at <http://www.financialstabilityboard.org/publications/r_130415.pdf>.

53 The survey was circulated to 55 institutions, with 30 responses received. See Annex 1 for a list of survey recipients.

54 Since the October 2012 Report, the BIS has released OTC derivatives statistics for end June and end December 2012. This semiannual data is a subset of the detailed statistics collected by the BIS on a triennial basis, with the next update. For analysis of the Australian OTC derivatives market based on these data, see Ahn J, M Matič and C Vallence, 'Australian OTC Derivatives Markets: Insights from the BIS Semiannual Survey', RBA *Bulletin*, December, pp 39–45. Available at <http://www.rba.gov.au/publications/bulletin/2012/dec/5.html>.

4.2 Central Clearing

4.2.1 Scope and prioritisation

The Statement noted that, in line with IOSCO recommendations, the regulators would apply both a top-down and a bottom-up approach to determining which products should be considered for mandatory clearing.

- Under the top-down approach, OTC derivatives products will be considered for mandatory clearing based on a broad range of information available to the regulators about activity in the OTC derivatives market and product characteristics.
- Under the bottom-up approach, OTC derivatives products already cleared (or prospectively to be cleared) by a CCP licensed to operate in Australia will be considered for mandatory clearing.

Since no CCP licensed to operate in Australia had been approved to clear OTC derivatives products at the time the regulators commenced their assessment, the bottom-up approach was not applied. In applying the top-down approach, the regulators have initially prioritised products for consideration based on the potential benefits from central clearing, taking into account whether the product is already under a clearing obligation in another jurisdiction.[55] Currently the only clearing mandates in effect are the CFTC's mandate and Japanese requirements. The CFTC's mandate applies to interest rate derivatives in US dollars, euros, British pounds and yen, as well as North American and European referenced credit derivatives. The Japanese requirements relate to trades between domestic financial institutions in yen-denominated interest rate derivatives and Japanese referenced credit derivatives.

Benefits from central clearing

Central clearing may be a highly effective way to enhance the efficiency, integrity and stability of financial markets. In this context, the potential benefits of central clearing will reflect the level of trading activity in a particular derivatives product, its characteristics, and the profile of participation in the market. As noted in the Statement, in assessing the potential benefit of central clearing, the regulators consider factors such as:

- absolute and relative notional principal outstanding of the product under consideration, and metrics for associated risk (e.g. market value and gross credit exposure)
- the magnitude and dispersion of bilateral counterparty exposures
- the profile of participation
- the potential impact of central clearing on market functioning (e.g. liquidity, price discovery).

In terms of notional principal outstanding across the various instruments, activity in the Australian market is concentrated in single-currency interest rate derivatives. There is also significant activity in foreign exchange derivatives, including cross-currency swaps. This is reflected in the composition of Australian banks' OTC derivatives positions (Table 1). In contrast, the share of outstandings in credit, commodity and equity derivatives for the Australian banks is smaller than that observed globally.

[55] Another criterion identified in the Statement, i.e. whether the product is designed as a deliberate attempt to avoid an existing clearing obligation, has not been found to be relevant in the Australian context at this time.

Within single-currency interest rate derivatives, activity in the Australian market is concentrated in Australian dollar-denominated interest rate derivatives. Data from the most recent BIS survey suggest that Australian dollar contracts represent around 65 per cent of the notional principal outstanding in interest rate contracts reported by the Australian banks.[56] This instrument class is also of systemic importance since it plays an important role in domestic financial institutions' management of interest rate risk. Consequently, as stated in the October 2012 Report, of the various instrument classes traded in the Australian OTC derivatives market, an increase in central clearing of Australian dollar-denominated interest rate derivatives is likely to yield the most immediate and substantial benefits to the Australian financial system.

Table 1: OTC Derivatives Outstanding By Instrument

As at end December 2012, per cent

	Australian Banks		Global	
	Share of notional principal outstanding[(a)]	Share of gross market value outstanding[(b)]	Share of notional principal outstanding[(a)]	Share of gross market value outstanding[(b)]
Single-currency interest rate	66.2	61.7	82.9	82.1
Foreign exchange[(c)]	31.1	33.3	11.4	10.0
Credit	1.3	0.8	4.2	3.7
Commodities	1.2	3.6	4.4	1.6
Equity	0.2	0.6	1.0	2.7

(a) Notional principal is the reference amounts from which contractual payments are determined in derivatives markets

(b) Gross market value is the sum of the absolute values of all open contracts with either positive or negative replacement values evaluated at market prices prevailing on the reporting date

(c) Includes cross-currency swaps

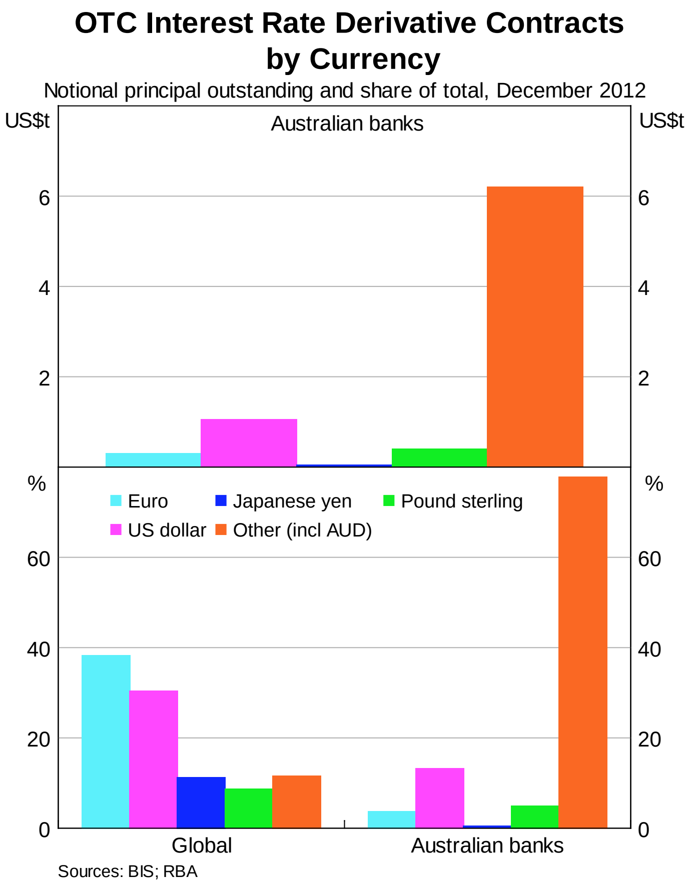
Sources: BIS; RBA

Together, contracts in US dollar-, euro-, British pound- and yen-denominated interest rate derivatives also constitute a material proportion of Australian banks' notional principal outstanding. However, as might be expected, these products comprise a smaller share of Australian banks' interest rate derivatives portfolios than they do global banks' portfolios (Graph 1). As of December 2012, BIS figures show that Australian banks' notional principal outstanding of US-dollar denominated interest rate derivatives was just over US$1 trillion, and their notional principal outstanding of British pound – and euro- -denominated interest rate derivatives was around US$400 million and US$300 million, respectively. At just US$30 million in notional principal outstanding, yen-denominated products is a much less significant component of Australian banks' interest rate derivatives activity.

[56] The geographical breakdown of BIS data is based on the domicile of the entity rather than where the market in which the trade was entered into or booked. Consequently, the BIS data for Australia is based on the activity reported by Australian banks, but not the Australian-based activities of offshore entities.

By comparison, Australian banks' notional principal outstanding of Australian dollar-denominated interest rate derivatives was around US$5.3 trillion as of December 2012. Globally, notional principal outstanding of Australian dollar-denominated interest rate derivatives was US$8.9 trillion.[57]

Graph 1

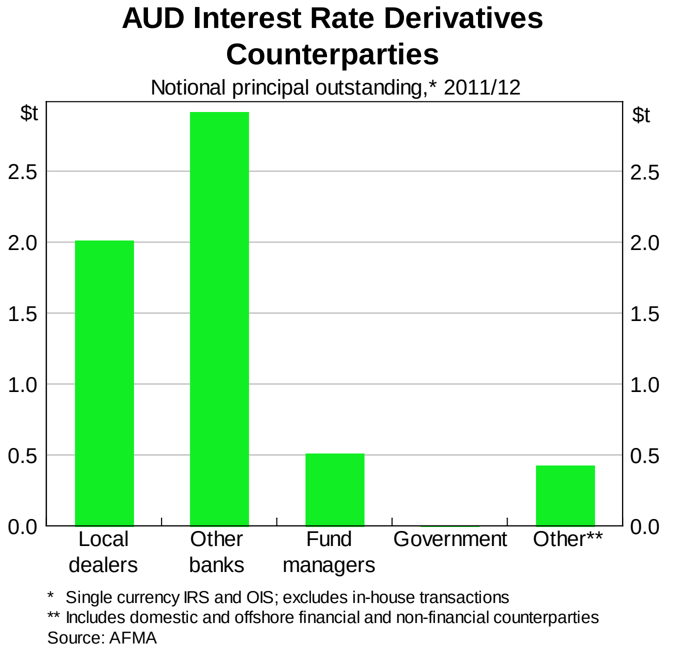


The October 2012 Report also highlighted that activity in Australian dollar-denominated interest rate derivatives is quite concentrated among banks, and especially dealers. AFMA data suggest that around 85 per cent of notional principal outstanding in the Australian market is interbank, of which close to half is interdealer (Graph 2). This is consistent with the counterparty breakdown of 'centrally clearable' AUD interest rate derivative transactions from the regulators' March 2013 survey, which suggests that around 80 per cent of notional principal outstanding was transacted between banks, of which over 65 per cent involved at least one domestic bank.[58] Consequently, it may be that the majority of the stability benefits from central clearing would be realised if only a relatively small number of large market participants were to centrally clear trades.

57 To the extent that Australian banks trade with each other, comparing these figures will overstate the Australian banks' share of activity as both sides of the trade will be included in the Australian banks' figure, whereas the global figures have been adjusted so that only one side of interbank trades is included.

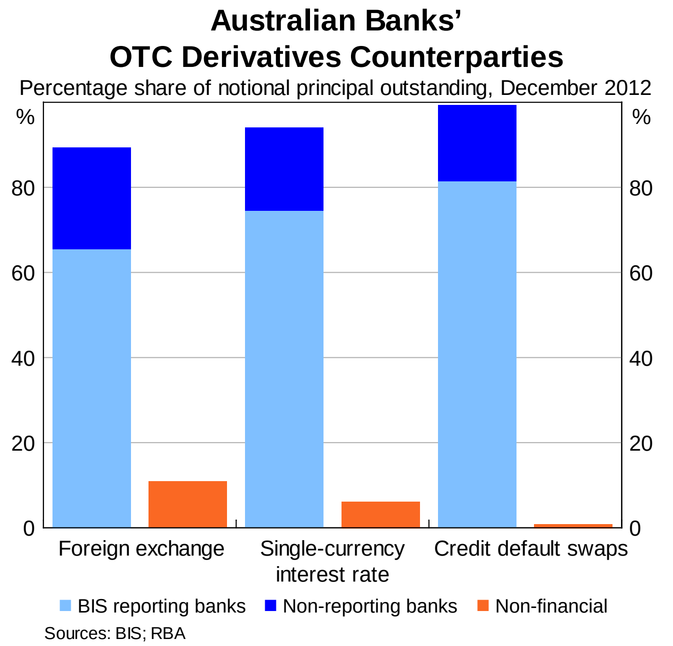
58 Survey recipients were asked to self-identify trades in products that are currently being cleared by a CCP.

Graph 2



Consistent with the evidence on Australian dollar-denominated interest rate derivatives, Australian activity in interest rate derivatives across all currencies is concentrated among banks, especially dealers. BIS data show that around 75 per cent of Australian banks' positions in interest rate derivatives are with other BIS reporting banks (generally dealers) (Graph 3). By contrast, BIS data indicate that there is proportionally more non-dealer activity in foreign exchange derivatives, while there is minimal non-dealer activity in credit derivatives in the Australian market.

Graph 3



As noted above, credit derivatives constitute a much smaller proportion of Australian market activity. Globally, the most actively traded credit derivatives are referenced to either North American or European indices. Survey responses suggest that there is around A$300 billion in notional principal outstanding of centrally clearable credit derivatives in the Australian market. While a material proportion of this activity relates to derivatives referenced to North American or European indices, only a small share of this activity involves Australian banks, with the majority of Australian banks' notional principal outstanding of credit derivatives referencing other underlyings. A detailed breakdown by reference entity has not been obtained, but it is understood that a material proportion of this is in products referencing Australian entities. While Japanese referenced credit derivatives are subject to a mandate in Japan, the regulators are unaware of material activity in this product in the Australian market.

Based on the above analysis, the regulators believe there are strong in-principle benefits from central clearing of Australian dollar-denominated interest rate derivatives, certain foreign exchange derivatives, cross-currency swaps, and potentially Australian referenced credit derivatives. Consistent with the Statement, the regulators have prioritised their assessment of products where an overseas regulator has introduced a mandate and there is material activity in the Australian market. The regulators have identified material activity in US dollar-, euro-, British pound- and yen-denominated interest rate derivatives, and North American and European referenced credit derivatives.

Preconditions for central clearing

A number of preconditions must be satisfied in order for a CCP to clear a product safely and reliably. The Statement establishes the following preconditions:

- the product must have a robust valuation methodology so that the CCP can confidently determine margin and default fund requirements
- there must be sufficient liquidity in the market to allow for close out and/or hedging of outstanding positions in a default scenarios
- there must be sufficient transaction activity and participation so that the fixed and variable costs of clearing the transaction are covered
- there must be some standardisation of contracts to facilitate the CCP's trade processing arrangements.

The regulators have assessed whether each of the classes of products identified in the previous section meet these preconditions. Since the interest rate derivatives and North American and European referenced credit derivatives under consideration are currently being cleared safely and reliably by global CCPs, they are deemed to meet the preconditions for central clearing.

In the case of foreign exchange derivatives and cross-currency swaps, in addition to meeting the preconditions identified above, a central clearing solution must develop a link to an appropriate mechanism for managing the settlement risk associated with the exchange of payments in two currencies.[59] Linking to such a mechanism in a cost-effective way remains a challenge for CCPs considering clearing solutions in these markets. The other preconditions seem largely to be met, although it has been suggested that there is some variation in the valuation models used by participants in the market for cross-currency swaps. Accordingly, while there would be in-principle benefits to central clearing of these products, it is not clear that the preconditions are yet met. These products have therefore not been prioritised in this assessment.

[59] For further discussion of cross-currency swaps in Australia, see Arsov I, G Moran, B Shanahan and K Stacey (2013), 'OTC Derivatives Reforms and the Australian Cross-currency Swap Market', RBA *Bulletin*, June, pp 55–63. Available at <http://www.rba.gov.au/publications/bulletin/2013/jun/7.html>.

Similarly, while central clearing of Australian referenced credit derivatives may be beneficial, no CCP currently offers clearing of these products. The regulators have nevertheless aim to improve their understanding of market participants' activities in credit derivatives referencing an Australian underlying ahead of the next report. In particular, the regulators intend to seek more information about the range of counterparties that transact in these products and the level of activity in specific credit derivatives products. In light of this information, the regulators intend to give further consideration as to which of these credit derivatives could be cleared both safely and reliably, and monitor the progress made by market participants in developing central clearing solutions for these products.

4.2.2 Australian dollar-denominated interest rate derivatives

In the October 2012 Report, the regulators concluded that a mandatory clearing obligation for Australian dollar-denominated interest rate derivatives was not necessary at that time. However, it was noted that should substantial industry progress towards central clearing in this class of derivatives not be evident in the near future, the regulators would revisit this recommendation. It was further acknowledged that there could be merit in exploring mandatory obligations further if this could deliver a net benefit to Australia, such as by reducing the cost of Australian- or foreign-based market participants engaging in cross-border transactions, or by providing greater certainty to participants as to how they may satisfy their regulatory obligations. Finally, the regulators made it clear that they would be concerned if, by adopting a flexible approach, opportunities for regulatory arbitrage emerged between the Australian regime and those in place in other jurisdictions.

This section reassesses the case for recommending a mandatory clearing obligation for Australian dollar-denominated interest rate derivatives. In so doing, it uses the framework articulated in the Statement, examining the implications of a mandated transition to clearing for the Australian financial system and participants, as well as considerations around international consistency.

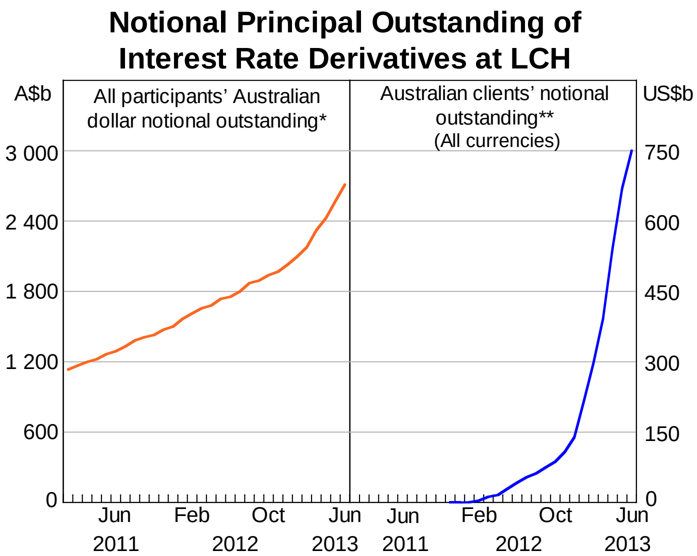
Implications of mandating for the Australian financial system and participants

In accordance with the Corporations Act, the regulators have considered the implications for the *efficiency, integrity and stability of the Australian financial system* as a whole, as well as the *regulatory impact* on market participants and financial market infrastructure active in the Australian market. In particular, the regulators have focused on the incremental benefits and costs of imposing mandatory clearing, relative to allowing the market to continue to transition to central clearing in response to incentives. In doing so, the regulators have addressed each of the key considerations set out in the Statement (and described in Chapter 2).

Extent of central clearing

The evidence to date is that the transition to central clearing of interdealer Australian dollar-denominated interest rate derivatives is accelerating. Central clearing of Australian dollar-denominated interest rate derivatives at LCH, the largest provider of interest rate derivatives clearing services, has more than doubled over the past two years (Graph 4, left panel). This growth reflects, almost entirely, increased clearing by foreign bank participants of LCH and takes the centrally cleared proportion of the Australian dollar-denominated interest rate derivatives market to around a third.

Graph 4



* CCP figures halved to adjust for the double counting that occurs when a trade is novated

** Total outstanding for Australian clients; to the extent that trades are between these clients, they will be counted twice

Source: LCH.Clearnet / SwapClear

Over the past 18 months the large Australian banks have established client clearing arrangements which allow them to clear trades through global CCPs via foreign banks that are participants of these CCPs. The notional value of interest rate derivatives across all currencies submitted by Australian banks to LCH under these arrangements has accelerated sharply in recent months, to around US$750 billion by June 2013 (Graph 4, right panel). While this remains less than 10 per cent of Australian banks' total notional principal outstanding of interest rate derivatives, the proportion of new transactions submitted to clearing is much higher. Further, Australian dollar-denominated interest rate derivatives constitute an increasing proportion of the volume submitted for clearing by the Australian banks – for some dealers, this is estimated to be around 40 per cent.

Industry liaison indicates that a small number of non-dealer market participants, including financial institutions and corporate entities, have commenced preliminary negotiations to establish client clearing arrangements, but that few have arrangements in place yet. Overall, the regulators have found little evidence of increased use of central clearing by non-dealers in the Australian market.

Availability or accessibility of central clearing

Despite the incentives to centrally clear, at this stage the transition to clearing for domestic participants has been limited by the lack of direct access to clearing. This is primarily because until recently, no CCP offering clearing in Australian dollar-denominated interest rate derivatives had yet been approved to provide these services in Australia. There are now three CCPs that clear Australian dollar-denominated interest rate derivatives, ASX Clear (Futures), LCH and CME. As discussed in Chapter 2, ASX Clear (Futures) and LCH recently received regulatory approval to provide these services directly to Australian participants.

As discussed in the October 2012 Report, direct participation has a number of commercial and risk management benefits. A direct participant has an exposure to the CCP, which is likely to be of greater credit standing than another clearing participant. In recognition of this, the Basel III capital framework provides for lower capital charges for exposures to CCPs; exposures to clearing participants arising through indirect clearing only receive similar treatment under strict conditions. Direct participants also have the opportunity to influence the CCP's risk management and operational design. For dealers, indirect clearing has the further disadvantage that it involves submitting trades through an institution that may otherwise be a competitor; it can also restrict a dealer's ability to offer client clearing services to its own clients.

In the case of Australian dollar-denominated interest rate derivatives, client clearing is a particularly inefficient means of accessing central clearing for large Australian banks. In addition to the factors listed above, industry liaison indicates that Australian banks' ability to clear Australian dollar-denominated interest rate derivatives through client clearing arrangements is limited by clearing intermediaries' tight clearing limits on Australian banks' largely directional Australian dollar-denominated interest rate derivatives business. Furthermore, given the degree of concentration in the provision of clearing services, counterparty credit limits may be binding and restrict Australian banks' exposures to their clearing intermediaries.

Smaller market participants' access to central clearing for Australian dollar-denominated interest rate derivatives is currently limited. Direct participation in central clearing requires considerable financial, operational and legal sophistication; requirements that may not easily be met by smaller participants. Consequently, such participants typically access CCPs indirectly; as clients of direct participants. In the case of the ASX Clear (Futures) OTC derivatives clearing service, client clearing of Australian dollar-denominated interest rate derivatives is proposed to be offered in a second phase of the service, intended for launched in December 2013. Even where client clearing is available, industry liaison suggests that during the transition to central clearing the high degree of concentration in the provision of clearing services may place operational constraints on the ability of clearing intermediaries to take on a large number of new clients quickly.

Status of commercial and operational arrangements

Given the limitations of client clearing for dealers, the large Australian banks have stepped up their level of engagement with potential providers of central clearing in the Australian market. For example, the large Australian banks have signed up as foundation members of the recently launched ASX Clear (Futures) OTC interest rate derivatives clearing service. It is also understood that nearly all large Australian banks have now signed letters of intent to directly clear with LCH and begun working towards ensuring their operational readiness to join as direct participants now that LCH's licence variation has been granted. The regulators expect that these commercial negotiations will be finalised and that the required operational arrangements will be largely in place by the end of 2013.

Evidence of commercial pressure or regulatory incentives

For dealers in the Australian OTC derivatives market, the observed increase in central clearing of Australian dollar-denominated interest rate derivatives in the absence of a mandate is in response to various regulatory and commercial incentives. In particular:

- *Liquidity*: While Australian dollar-denominated interest rate derivatives are not subject to an overseas mandate, market participants that are currently, or anticipate becoming, subject to mandatory clearing requirements for other interest rate derivatives products are seeking to maximise operational and netting efficiencies by channelling a wide range of centrally clearable trades through CCPs. Given the highly directional nature of Australian banks' positions in this market, survey evidence suggests that around three-quarters of interdealer trades in centrally clearable Australian dollar-denominated interest rate derivatives involve at least one overseas-headquartered counterparty. As a result, market participants report that there is a shrinking pool of derivatives counterparties that are willing to enter into non-centrally cleared transactions.

- *Cost and pricing*: Basel III capital requirements have made bilateral derivatives transactions more costly compared with centrally cleared derivatives transactions. This differential may be expected to increase further when initial margin requirements for non-centrally cleared derivatives (discussed in Chapter 3) are implemented.

These forces are currently less powerful for non-bank market participants, particularly since they are not typically subject to similar capital requirements and their dealers have not, to date, passed on all of the higher costs associated with non-centrally cleared OTC derivatives. The fixed cost of establishing access to CCPs may also be a commercial disincentive to move to central clearing, especially for non-dealers that undertake only a small number of OTC derivatives transactions.

However, as central clearing for dealers in the Australian markets becomes more widely used, an increasing number of non-dealers may face greater incentives to move into central clearing. As liquidity shifts more fully towards central clearing and the cost of non-centrally cleared transactions increase relative to cleared transactions, dealers may pass on the higher costs of non-centrally cleared OTC derivatives transactions and encourage their clients to establish and use arrangements for centrally clearing OTC derivatives.

International consistency

In accordance with the Corporations Act, the regulators have also considered relevant international standards and international commitments. As described in Chapter 2, the Statement identified three international consistency considerations: the potential for regulatory arbitrage; equivalence or comparability of the Australian regime; and unintended consequences from overseas requirements. As previously noted, Australian dollar-denominated interest rate derivatives are not currently subject to mandatory clearing in any overseas jurisdiction. Therefore, there is no immediate case to mandate Australian dollar-denominated interest rate derivatives on international consistency grounds. However, should an overseas jurisdiction consider introducing such a mandate, under IOSCO (2012) the relevant agencies from that jurisdiction would be expected to consult with Australian regulators.[60]

Recommendation and further considerations

The regulators have previously noted that there would be a substantial benefit from increased central clearing of OTC Australian dollar-denominated interest rate derivatives. To date, however, the regulators have not recommended imposing a mandatory clearing obligation, having favoured an incentives-led transition to central clearing. There is evidence of an increase in central clearing in this market among Australian participants. However, industry progress has been limited by the lack of availability of direct clearing for domestic market participants. While two CCPs have recently received regulatory approval to offer clearing of Australian dollar-denominated interest rate derivatives directly to Australian participants, these participants are still in the process of establishing operational arrangements to directly clear transactions. Furthermore, clearing arrangements for non-dealer financial institutions and other smaller users of OTC derivatives remain relatively limited at this stage.

> **As a result, the regulators will monitor for a further period Australian banks' progress in implementing appropriate clearing arrangements before recommending mandatory central clearing of Australian dollar-denominated interest rate derivatives. The initial scope of any mandate would likely be the interdealer market.**

With two CCPs now offering direct clearing services in this market, the regulators would expect operational arrangements to be largely in place by the end of 2013. The regulators will therefore review the case for mandating clearing of Australian dollar-denominated interest rate derivatives in their next report planned for early 2014.

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60 IOSCO (2012), *Requirements for Mandatory Clearing*, February. Available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD374.pdf>.

The regulators also consider that further work should be undertaken to understand the incremental costs and benefits of extending a central clearing mandate for these products to non-dealers. As part of this, in considering the case to mandate clearing by non-financial entities it will be important to examine implications for the costs to firms of hedging commercial risk.

In addition, should overseas regulators consider mandating central clearing of Australian dollar-denominated interest rate derivatives, Australian regulators would seek to coordinate the implementation to achieve a smooth transition to mandatory clearing.

4.2.3 US dollar-, euro-, British pound- and yen-denominated interest rate derivatives

The regulators have assessed the case for mandating central clearing of US dollar-, euro-, British pound- and yen-denominated interest rate derivatives.

Implications of mandating for the Australian financial system and participants

Extent of central clearing

As discussed above, there is evidence that the transition to central clearing of US dollar-, euro-, British pound- and yen-denominated interest rate derivatives between dealers has accelerated. Australian banks' notional principal outstanding of interest rate derivatives cleared at LCH, which include the products listed above, had increased to US$750 billion as at June 2013 (Graph 4, above). This is consistent with feedback from dealers operating in the Australian market that a significant majority of new transactions in interest rate derivatives are centrally cleared, especially interdealer transactions entered into with overseas-headquartered banks, many of which are either already, or expect soon to be, subject to clearing mandates in place overseas. The regulators' March 2013 survey also indicates that the vast majority of notional principal outstanding in centrally clearable US dollar-, euro-, British pound- and yen-denominated interest rate derivatives involves at least one overseas-headquartered dealer. For example, approximately 90 per cent of Australian banks' notional principal outstanding in centrally clearable US dollar-denominated interest rate derivatives was executed with overseas counterparties, and it is estimated that around 40 per cent is with US persons (which will be directly caught by the CFTC's clearing mandate) (Table 2).

Table 2: Counterparties to Centrally Clearable Interest Rate Derivatives[(a)]

Reported by Australian banks, Per cent of notional principal outstanding, February 2013

Currency	Domestic	Overseas	
			US persons
US dollar	11	89	38
Euro	3	97	27
British pound	3	97	14
Yen	14	86	14

(a) Survey recipients were asked to self-identify trades in products that are currently being cleared by a CCP
Source: survey responses

As with Australian dollar-denominated interest rate derivatives, there is little or no evidence that non-dealer market participants are centrally clearing their transactions in these products.

Availability or accessibility of central clearing

US dollar-, euro-, British pound- and yen-denominated interest rate derivatives are all already cleared by the dominant global OTC interest rate derivatives CCPs (CME and LCH), while a number of other CCPs clear a subset of these products (Table 3).

Table 3: OTC Interest Rate Derivatives CCPs

CCP	US dollar	Euro	British pound	Yen
CME Clearing Europe	✓	✓	✓	✓
CME Clearing US	✓	✓	✓	✓
Eurex Clearing	✓	✓	✓	
JSCC				✓
LCH	✓	✓	✓	✓
SGX	✓			

Source: CCP websites

As previously discussed, foreign banks that are dealers in the Australian OTC derivatives market are direct members of at least one of these CCPs, and over the past 18 months all large Australian banks have established client clearing arrangements with participants of at least one of the global CCPs. While the drawbacks of indirect clearing for large Australian banks, discussed above, are also relevant in relation to non-Australian dollar-denominated interest rate derivatives, Australian banks' positions in these products are smaller and less directional and therefore some of the limitations of client clearing may be less of a concern.[61]

The factors contributing to limited access for non-dealer domestic participants described in the context of Australian dollar-denominated interest rate derivatives, on the other hand, are generally equally relevant for interest rate derivatives denominated in other currencies.

Status of commercial and operational arrangements

In addition to the client clearing arrangements discussed above, nearly all large Australian banks have commenced the process of establishing arrangements to directly clear US dollar-, euro-, British pound- and yen-denominated interest rate derivatives through LCH. As noted in respect of Australian dollar-denominated interest rate derivatives, the regulators expect that these commercial negotiations will be finalised and that the required operational arrangements will be in place by the end of 2013.

Evidence of commercial pressure or regulatory incentives

As previously noted, market participants that are, or anticipate becoming, subject to mandatory clearing requirements are seeking to maximise operational and netting efficiencies by channelling trades through CCPs. This shift in liquidity, along with the price and cost considerations discussed in relation to Australian dollar-denominated interest rates derivatives, is providing incentives for market participants that are not currently subject to a mandate to centrally clear.

International consistency

International consistency is a key consideration in assessing the case for implementing a domestic clearing mandate for these products. US dollar-, euro-, British pound- and yen-denominated interest rate derivatives are subject to the CFTC's mandate, and yen-denominated interest rate derivatives are also subject to a Japanese clearing mandate. It is also expected that at least some of these products will be considered for mandatory clearing by ESMA and the EC.

As previously described, the regulators have considered three matters relevant to international consistency. Each of these is addressed in turn.

[61] Under the Corporations Act, a mandatory clearing obligation can only be fulfilled by clearing through prescribed or licenced CCPs. In order to preserve domestic participants' access to client clearing through overseas CCPs that are not licensed in Australia, Australian Treasury could prescribe such CCPs, with domestic participants' access limited to indirect clearing arrangements.

Regulatory arbitrage

One of the international consistency considerations is that in the absence of broadly harmonised requirements, there may be potential for regulatory arbitrage or other distortions in market participants' choice as to where to conduct business or book trades.

In part, this risk is expected to be addressed by the application of overseas mandates; notwithstanding that the precise scope of the cross-border application of mandatory requirements is still under consideration in a number of jurisdictions. Even where Australian participants will not be directly subject to the CFTC's mandate, if they wish to continue trading with many of their international counterparties the only option will be to centrally clear such trades. However, the CFTC's mandatory clearing requirements generally do not apply to trades between two non-US persons.

While the regulators are of the view that regulatory and commercial incentives will be effective in moving transactions to central clearing, they would be concerned if, by adopting a flexible approach, opportunities for regulatory arbitrage emerged. Imposing a domestic mandate should entirely remove any scope for regulatory arbitrage.

Equivalence or comparability

The CFTC and European authorities are currently assessing the comparability or equivalence of the Australian regulatory regime for OTC derivatives. Under certain circumstances, positive assessments will permit participants to choose to comply with Australia's domestic regulatory regime, instead of the CFTC's or EMIR rules, which may lower the cost of compliance for Australian participants. In the absence of a domestic clearing mandate for US dollar-, euro-, British pound- and yen-denominated interest rate derivatives, the Australian regime with respect to central clearing may be less likely to receive a positive assessment.

Five Australian banks have provisionally registered with the CFTC as swap dealers. Should the CFTC reach a positive assessment of Australia's OTC derivatives regulation, including in respect of central clearing, these participants will be able to comply with Australian requirements in certain circumstances. It should be noted that substituted compliance is not available for transaction-level requirements (such as mandatory clearing) of trades involving US persons. However, to the extent that an Australian-based swap dealer or an Australian-based major swap participant trades with a foreign branch of a US person (e.g. the Australian branch of a US bank) or a non-US person that is guaranteed by a US person, substituted compliance may be available. A positive assessment may also allow, to a limited extent, Australian affiliates or branches of US persons to comply with the Australian regime.

Unintended consequences

The final consideration in respect of international consistency is possible unintended consequences for Australia where, in the absence of a domestic mandate tailored to the Australian context, Australia participants are directly subject to overseas regulators' requirements. Under such circumstances it is possible that differences in market structure and conditions could cause unforeseen issues for domestic market participants. In particular, given domestic non-dealer participants' more limited access to central clearing, the regulators would be concerned if transactions with non-dealer domestic participants were required to be cleared (possibly because the counterparty was subject to an overseas mandate). In such a situation, implementing a domestic mandate could allow Australian regulators to better tailor requirements to the Australian context, in a manner that did not compromise recognition of the Australian regime as equivalent or comparable.

Recommendation and further considerations

Collectively, there is material activity in US dollar-, euro-, British pound- and yen-denominated interest rate derivatives in the Australian market. Certain trades by internationally active participants are already caught by the requirements of other jurisdictions and therefore are already, in effect, subject to mandatory clearing. Furthermore, even where this is not the case, the largest Australian banks already centrally clear a substantial proportion of their new trades in these products via the client-clearing arrangements they have with participants in the global CCPs. Accordingly, the regulators consider that the incremental regulatory cost of such a mandate for dealers with significant cross-border activities is likely to be low, and that there would be international consistency benefits to determining a mandate for these products.

> **The regulators therefore recommend that the Government consider a central clearing mandate for these products, primarily on international consistency grounds. The initial focus of such a mandate should be dealers with significant cross-border activity in these products. The timing and other aspects of the implementation of any such mandate would be determined in consultation with the relevant authorities in the 'home currency' jurisdiction.**

Furthermore, to the extent that a domestic mandate tailored requirements to the Australian context, the regulators would liaise with overseas regulators to ensure that such measures did not compromise the Australian regime's broad equivalence with overseas jurisdictions' regimes.

As suggested for Australian dollar-denominated interest rate derivatives, the regulators also consider that further work should be undertaken to understand the incremental costs and benefits of extending a central clearing mandate for US dollar-, euro-, British pound- and yen-denominated interest rate derivatives beyond the dealer community, including the implications for participants hedging commercial risks.

4.2.4 North American and European referenced credit derivatives

Given the CFTC's mandate, this assessment considers the case for mandating central clearing of North American and European referenced credit derivatives.

Implications for the Australian financial system and participants

While North American and European referenced credit derivatives are currently being cleared by global CCPs, very few Australian market participants are clearing these products. This is likely to reflect the fact Australian market activity in these products is highly concentrated, with survey responses suggesting that domestic participants comprise a relatively small proportion of activity. Possibly due to their low levels of activity, the majority of domestic participants reported that they were still considering whether to centrally clear credit derivatives – notwithstanding that several reportedly have client clearing arrangements for other products with global CCPs that also clear credit derivatives. To the extent that trades with international counterparties are subject to overseas mandatory clearing requirements, the regulators expect to observe increasing levels of central clearing by large Australian participants using such arrangements. In addition, no CCP that clears credit derivatives yet has the appropriate regulatory approvals to offer services directly to domestic Australian participants. Consequently, client clearing is currently the only option for domestic participants to clear credit derivatives.

In terms of the commercial pressure or regulatory incentives to centrally clear North American and European referenced credit derivatives, the liquidity, price and cost considerations discussed in relation to interest rates derivatives also apply.

International consistency

As with US dollar-, euro-, British pound- and yen-denominated interest rate derivatives, international consistency is a key consideration in assessing the case to mandate North American and European referenced credit derivatives. The regulators have assessed each of the three aspects of international consistency below.

Regulatory arbitrage
As discussed in the context of the interest rate derivatives that are subject to the CFTC's mandate, Australian regulators would be concerned if, in the absence of a domestic mandate, opportunities for regulatory arbitrage emerged and, at a minimum, will be monitoring activity to identify if participants are changing where they conduct business in order to avoid regulation. However, liaison with market participants suggests that the majority of Australian participants' outstanding transactions in these products are with US persons and will be subject to the CFTC's mandate, which should mitigate this risk.

Equivalence or comparability
With overseas jurisdictions' assessments of the equivalence or comparability of the Australian OTC derivatives regulation ongoing, it is unclear whether mandatory clearing requirements will be assessed as a whole, or whether requirements for particular products will be assessed separately. If products will be assessed separately, Australian banks' low level of activity in North American and European referenced credit derivatives suggests that there may be relatively less potential benefit from a positive assessment in respect of these products. However, if the absence of a mandatory clearing requirement for these products affected the overall assessment of Australia's regime, the benefit could be more substantial.

Unintended consequences
The final consideration in respect of international consistency is possible unintended consequences for Australia, where, in the absence of a domestic mandate, overseas regulators impose their requirements. These unintended consequences would likely arise due to differences in market structure and conditions that could cause unforeseen issues for domestic market participants. In terms of North American and European referenced credit derivatives, there is limited activity by domestic participants, especially beyond the large Australian banks. As a result, the scope to tailor requirements to the Australian context, and the benefit from doing so, is likely to be minimal.

Recommendation and further considerations

In assessing the case for imposing a clearing mandate for these products, the regulators have observed a relatively low level of activity in these products among domestic participants, including the large Australian banks. Furthermore, domestic participants are currently unable to directly clear North American and European referenced credit derivatives, and Australian market participants are only clearing to a limited extent via existing client clearing arrangements.

Accordingly, the regulators do not see a case for mandating these products at this time.

However, ahead of the regulators' next report, further information will be sought about Australian participants' counterparty exposures in these products and the breadth of central clearing of these products. In light of this information, the regulators will revisit this recommendation. In particular, the regulators would be concerned if there were evidence in the Australian market of regulatory arbitrage or if this recommendation affected the outcome of equivalence or comparability assessments, and would respond accordingly.

4.3 Platform Trading

In the October 2012 Report, the regulators concluded that there were in-principle benefits from greater utilisation of trading platforms in the Australian OTC derivatives market. However, the regulators did not make any specific recommendation as to possible platform trading obligations. Instead the regulators have continued to seek further information on the types of trading venues used for different types of OTC derivatives instruments in order to better understand where and how the benefits of mandatory platform trading might best be realised.

Access to trading platforms

Accordingly, the March 2013 survey sought information about respondents' use of different trading platforms across the instrument classes. While the G20 has committed to the trading of standardised OTC derivatives contracts on exchanges or electronic trading platforms, international debate is ongoing as to what constitutes an acceptable trading venue, including the extent to which voice broking should be permitted for these purposes.[62]

In terms of the availability of trade execution methods in Australia, respondents reported using 21 different voice broking platforms, 30 single dealer electronic platforms, and 20 multi-dealer electronic platforms. While a wide range of voice broking platforms are available, only a small number of platforms were used by all respondents. Nearly all major participants also reported some use of electronic trading platforms.

Voice broking is the most widespread execution method across all instrument classes.[63] Almost all respondents use voice broking to execute at least some of their trades across every instrument class. Indeed, for some instrument classes, a number of market participants, particularly fund managers, reported that this was their only method of execution. Voice broking is particularly common in interest rate derivatives and cross-currency swaps; over 85 per cent of notional principal outstanding in each of these classes was reported as having been executed using this method, the remainder mostly having been executed on multi-dealer electronic platforms (Table 4).

Table 4: Use of Trade Execution Methods

Year to end February 2013, Per cent of notional principal outstanding

	Voice broking[(a)]	Single Dealer Electronic Platform	Multi-dealer Electronic Platform
Cross-currency swaps	92	–	8
Single-currency interest rate	86	–	14
Equity	76	21	3
Foreign exchange	63	22	15
Credit	36	45	19
Commodity	25	75	–

(a) Includes trades executed bilaterally over the phone or using voice broking platforms

Source: survey responses

62 IOSCO published reports in 2011 and 2012 which discussed the characteristics of organised platforms that could be used to meet trade execution requirements. See IOSCO (2011), *Report on Trading of OTC Derivatives*, February, available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD345.pdf>, and IOSCO (2012), *Follow-on Analysis to the Report on Trading of OTC Derivatives*, January, available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD368.pdf>. Specific areas of debate internationally include the extent to which single dealer platforms, voice broking platforms, and request for quote systems will be deemed acceptable venues.

63 Voice broking includes trades executed bilaterally over the phone or using voice broking platforms.

While used less frequently, access to electronic trading platforms is fairly broad, although no respondents reported using single dealer electronic platforms for single-currency interest rate derivatives and cross-currency swaps and very few respondents had used multi-dealer electronic platforms for equity derivatives in the last year. Electronic trading platforms are particularly prevalent in credit and commodity derivatives, accounting for around 65 and 75 per cent, respectively, of notional principal outstanding these instrument classes. The execution method for foreign exchange derivatives varies, with single dealer and multi-dealer electronic platforms each accounting for roughly a fifth of notional principal outstanding in this instrument class.

Industry liaison suggests that the divergent trends in execution methods across the different instrument classes are driven by the level of standardisation in contracts, since standardisation facilitates trading on electronic trading platforms. It was also noted that the transition to central clearing is likely to encourage increased use of automated processing, which should, in turn, encourage electronic trading.

Market liquidity

Apart from standardisation, the other key characteristic widely acknowledged as an important driver of platform trading is liquidity.[64] In a liquid financial market, a participant should be able to execute a transaction of conventional or desired size with minimum time delay and minimum impact upon price; such markets are suited to trading using automated multilateral execution systems. However, in less liquid financial markets, alternative execution methods (such as a request for quotes) allow traders to avoid displaying an order that cannot be absorbed by the market without substantial price impact.

To assess the liquidity in the Australian OTC derivatives market, the regulators sought information on average turnover per day for each instrument class. Consistent with the results of the June 2012 survey, apart from foreign exchange derivatives, the number of transactions executed in the Australian market is not very high; each dealer transacts around 200 foreign exchange derivatives transactions each day, compared with 40 transactions per day for other instrument classes, and in some cases less than 10. Within each instrument class, these transactions are spread across different product subtypes, currency denominations and tenors, which suggests that these markets are relatively illiquid. As a result, careful consideration is required as to the appropriate characteristics for a trading platform in these markets.

Recommendation and further considerations

The regulators continue to see in-principle benefits from greater utilisation of trading platforms in the Australian OTC derivatives market. However, it remains unclear how the benefits of mandatory use of trading platforms might best be realised. In particular, further consideration needs to be given to what constitutes an acceptable trading venue for these purposes, with relevant rulemaking still in progress in major jurisdictions, and at an early stage elsewhere. Accordingly, the regulators will continue to monitor developments in other jurisdictions and seek more detailed information on activity in the Australian market, with a view to more clearly defining the characteristics of suitable trading platforms. This work will likely be facilitated by the implementation of mandatory trade reporting in Australia. Consequently, the regulators do not propose to make a recommendation regarding a mandatory platform trading obligation at this time.

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[64] See, for example, IOSCO (2011), *Report on Trading of OTC Derivatives*, February. Available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD345.pdf>

4.4 Risk Management for Non-centrally Cleared Trades

The FSB has stated that it is important for relevant authorities to consider risk management practices for non-centrally cleared transactions to ensure the resilience of the financial system. In line with the FSB's expectations, the regulators have, on several occasions, reviewed and made recommendations regarding such risk management practices in the Australian market. In the October 2012 Report, the regulators recommended a number of enhancements to participants' risk management practices:

- Participants should ensure that adequate credit support arrangements are in place for all OTC derivatives transactions.
- For large and more active market participants, daily collateralisation of exposures should be adopted as best practice in the market where possible; it is recognised that this needs to be balanced against the operational costs and liquidity risks that this may create for some types of counterparties.
- Participants should understand the increased counterparty exposure generated by posting collateral over and above mark-to-market (variation margin) requirements, and ensure that the resultant risks are adequately managed.
- There would be increased benefits in there being a more coordinated market-wide approach to the usage of trade compression services.
- A greater utilisation of portfolio reconciliation services should be pursued by the industry.

Since the publication of this report, the regulators have engaged with industry on these issues through regular industry forums. The regulators also sought further information on developments in these areas as part of the March 2013 survey.

4.4.1 Collateralisation

The first three issues identified in the October 2012 Report involve collateralisation. These issues overlap with the work of the WGMR (discussed in Chapter 3). For example, in order to comply with the WGMR principles, participants will need to have adequate credit support arrangements in place. The draft principles issued for consultation by the WGMR require that all financial firms and systemically important non-financial entities exchange initial and variation margin on a regular (daily) basis, and ensure that posted margin is subject to an appropriate level of segregation. In order to comply with these requirements, it is expected that participants will need to amend existing documentation and implement new operational processes.

While the risks of over-collateralisation are not explicitly dealt with in the WGMR principles, the regulators believe that the increased demand for collateral resulting from these requirements will encourage participants to manage their collateral efficiently, and review arrangements for the protection and segregation of posted margin.

Once the WGMR principles are finalised, the regulators will provide advice to the government in relation to their implementation in Australia. In developing this advice, the regulators will assess implications for market functioning, giving particular consideration to the institutional scope of the requirements. In addition, the regulators will continue to monitor other developments in the collateralisation of non-centrally cleared derivatives in Australia, including changes to credit support and netting documentation.

4.4.2 Trade compression

Trade compression is the reduction of notional OTC derivative trades by simultaneously terminating redundant trades against counterparties while retaining a desired risk position. This may be undertaken through either multilateral or bilateral processes. Multilateral trade compression involves the tearing up of trades across a number of counterparties and generally requires coordination by a service provider.

In the October 2012 Report, the regulators suggested that there would be benefits from there being a more coordinated market-wide approach to the usage of trade compression services. Industry liaison has suggested that, in part, domestic participants' sporadic use of multilateral trade compression is due to the directional nature of their Australian dollar-denominated interest rate derivatives positions, which reduces the incidence of redundant trades that can be terminated. In addition, to gauge the potential benefits from multilateral trade compression of Australian dollar-denominated interest rate derivatives, the regulators are in the process of analysing the results of a recently completed compression cycle. Based on this analysis, the regulators will consider whether action should be taken to facilitate coordination in this process.

4.4.3 Portfolio reconciliation

The objective of portfolio reconciliation is to ensure that two market participants have consistent records for a given portfolio of trades by comparing descriptions of the portfolio content provided by each participant. This is important since it helps to ensure that counterparties to a trade agree on valuations and reduces the potential for collateral or margin disputes.

In line with the October 2012 recommendation, the regulators have observed increased utilisation of portfolio reconciliation services. This is particularly true for those large domestic and international banks that expect to be subject to overseas regulators' rules that specify the frequency of portfolio reconciliation. The regulators will continue to monitor Australian market participants' use of portfolio reconciliation services.

5. Next Steps

This report constitutes the regulators' latest advice to the Minister on the case for mandatory obligations under the Corporations Act. The particular focus of this report has been the case for introducing a mandate for central clearing of certain OTC derivatives products.

In line with the process following the October 2012 Report, if the Minister accepts the regulators' recommendation to consider a central clearing mandate for US dollar-, euro-, British pound- and yen-denominated interest rate derivatives, it is expected that Treasury would consult on a proposed determination. Such a proposal would consider:

- the likely effect on the Australian economy, and on the efficiency, integrity and stability of the Australian financial system
- the likely regulatory impact
- in the case of commodity derivatives, the likely impact on any relevant Australian commodities market or markets
- any other matters that the Minister considers relevant, such as relevant international standards and international commitments.

These are also the matters the regulators have considered in preparing their advice. The government may also consider issuing regulations that restrict the product or institutional scope of mandatory requirements, thereby providing temporary or ongoing exemptions in relation to specified products or entities. This would be consistent with the regulators' recommendation that the initial focus of such a mandate should be dealers with significant cross-border activity in these products.

If the Minister proceeds with a determination, ASIC will consult on DTRs that establish the details of the requirement, including matters such as the institutional and product scope and how the requirements may be met. In developing these rules, ASIC will also consult with APRA and the RBA.

In addition, the regulators will continue to actively monitor developments in the Australian and overseas OTC derivatives markets. This will include monitoring industry progress towards addressing the regulators' recommendations. As part of this process, the regulators intend to carry out further periodic surveys of the Australian OTC derivatives market and produce assessment reports based on the results. As noted in the Statement, in the initial phase of implementation it is intended that these reports be produced on a semiannual basis. Accordingly, the regulators' next report on the Australian OTC derivatives market is planned for early 2014.

Annex 1: Survey Recipients

The survey was circulated to the following 55 institutions. Responses were received from 30 entities.

AGL Energy Limited

Alinta Energy

AMP Capital Investors Limited

Arcadia Energy Trading Group Pty Ltd

Aurora Energy Pty Ltd

Australia and New Zealand Banking Group Limited

Australian Power and Gas

Bank of America – Merrill Lynch Australia

Bank of China Limited

Bank of Queensland Limited

Bank of Tokyo-Mitsubishi UFJ Ltd, Sydney Branch

Barclays Bank PLC

Bendigo and Adelaide Bank Limited

BNP Paribas

Citigroup Global Markets Australia Pty Ltd

Colonial First State Global Asset Management

Commonwealth Bank of Australia

Credit Suisse AG

CS Energy Limited

Delta Electricity

Deutsche Bank AG, Sydney Branch

TRUenergy Pty Ltd

Eraring Energy

Ergon Energy Queensland Pty Ltd

GDF Suez Australian Energy

Goldman Sachs & Partners Australia Pty Ltd

HSBC Bank Australia Limited

Hydro Tasmania

ING Bank (Australia) Limited

InterGen (Australia) Pty Ltd

Investec Bank (Australia) Limited

JP Morgan Chase Bank, N.A.

Lloyds TSB Bank PLC, Australia Branch

Lumo Energy

Macquarie Bank Limited

Macquarie Generation

Morgan Stanley Australia Limited

National Australia Bank Limited

New South Wales Treasury Corporation

Nomura Australia Limited

Origin Energy Electricity Limited

PIMCO Australia Pty Ltd

QIC Limited

Queensland Treasury Corporation

Rabobank Australia Limited

Royal Bank of Canada

Snowy Hydro Limited

Stanwell Corporation Ltd

State Street Bank and Trust Company

Suncorp-Metway Ltd

Tasmanian Public Finance Corporation

The Royal Bank of Scotland, PLC

UBS AG, Australia Branch

Western Australian Treasury Corporation

Westpac Banking Corporation