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1. **Introduction**

Rapid growth in over-the-counter (OTC) derivatives markets over the past decade and longer has been accompanied by an increasing awareness of the systemic importance of these markets, and of the potential risks inherent in market practices. These risks were most starkly demonstrated during the peak of the recent financial crisis in 2008. As a result, authorities have been developing a global regulatory agenda to drive substantial reforms in the functioning of OTC derivatives markets.

The agencies of the Council of Financial Regulators have been considering reforms in the Australian OTC derivatives market for a number of years. In 2009 a survey of the domestic OTC derivatives market was published, and in June 2011 a discussion paper on central clearing was released as a basis for detailed consultation with interested stakeholders. At an international level, various standard-setting bodies have been developing proposals to strengthen OTC derivatives market practices and improve regulation in this area. The Financial Stability Board (FSB) has played an important role in coordinating much of this activity. In October 2010 the FSB issued a set of recommendations to guide jurisdictions in developing regulatory reform proposals in this area.

Government leaders have endorsed this agenda, most notably through commitments made at successive summits of the Group of Twenty (G-20) economies, of which Australia is a member. The most recent G-20 statement on this issue was at the Cannes summit in November 2011:

‘Reforming the over the counter derivatives markets is crucial to build a more resilient financial system. All standardized over-the-counter derivatives contracts should be traded on exchanges or electronic trading platforms, where appropriate, and centrally cleared, by the end of 2012; OTC derivatives contracts should be reported to trade repositories, and non-centrally cleared contracts should be subject to higher capital requirements … We call on the Basel Committee on Banking Supervision (BCBS), the International Organization for Securities Commissions (IOSCO) together with other relevant organizations to develop for consultation standards on margining for non-centrally cleared OTC derivatives by June 2012 …’

This reform agenda is setting in train changes to the global OTC derivatives market that are already having an impact on market participants in Australia. In response to this, and to consider how Australia’s G-20

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commitments might best be implemented, the Council agencies have been considering regulatory reform policy options for OTC derivatives market practices in Australia. In particular, the Council agencies have been considering how to promote an increased use of centralised infrastructure in the Australian market.

This paper sets out some conclusions of the Council on this matter, indicating where further work may be required. The Council’s view is that, in the first instance, industry-led solutions should be the preferred route to increasing the use of centralised infrastructure within the Australian OTC derivatives market. Importantly, various regulatory and commercial incentives are playing out which should have the effect of driving the market towards centralised arrangements.

However, there is a risk that progress might be slow, particularly given the heterogeneous nature of the domestic market and the absence of an existing strong coordination mechanism. Given the systemic risks inherent in existing bilateral arrangements, slow progress on this front is undesirable. As well, it is important that the Australian market keeps pace with international developments. It may therefore be appropriate for regulators to have a capacity to mandate outcomes in this area.

An important consideration in the Australian market is its highly international nature, both in terms of the role played by foreign banks and the importance of cross-border capital flows. Given this, the Council has been considering whether infrastructure supporting the domestic market should be located in Australia, or whether offshore facilities should be accommodated. The Council has concluded that market participants’ choices on this question should not be unduly constrained. In part, domestic and international regulatory developments have given the Council increased comfort that satisfactory arrangements around the use of offshore facilities can be developed. The paper sets out some considerations on this issue, as well as discussing where changes to the existing Australian regulatory regime might be warranted.
2. Infrastructure Supporting OTC Derivatives Markets

2.1. Introduction

Financial market infrastructures (FMIs) can greatly improve the resilience of financial markets, including many segments of OTC derivatives markets. Even where the highly bespoke nature of some contracts means that FMI usage is not appropriate, other forms of standardisation can contribute to the robustness of markets where bilateral arrangements remain important. By providing a central location for price discovery, FMIs can increase the liquidity and transparency of markets for all market participants. FMIs such as central counterparties (CCPs) also provide a benefit to the market as a whole by carrying out much of the management of the legal, operational and counterparty risks associated with derivatives trading. A particularly important aspect of a CCP arrangement is that all bilateral contracts between the various participants are replaced by a simpler set of exposures between the CCP and each individual participant, reducing the interdependence of market participants. The potential multilateral netting provided by CCPs can also result in significant liquidity and settlement efficiencies, further reducing systemic risk.

2.2. Trade Repositories

A trade repository is a centralised registry that maintains an electronic database of records of transactions. Trade information is submitted to a repository by one or both trade counterparties, and typically covers information such as transaction maturity, price, reference entity and counterparty. In the absence of trade repositories, transaction data are widely dispersed among market participants and various service providers (e.g. dealers, CCPs, trading platforms and custodians), and are often stored in incompatible proprietary systems.

For individual market participants, centralisation of trade data may assist them in understanding their own risks and exposures. Access to standardised data could allow internal and external auditors and risk management personnel to more effectively verify and track transactions and exposures. Given the use of standardised reporting formats, the use of trade repositories is also likely to encourage operational efficiencies in post-trade processing, either by the trade repository or by other service providers that use the data maintained by the trade repository. Data from a trade repository can be used to facilitate electronic trade matching and confirmation, settlement of payment obligations, trade novation and affirmation, portfolio compression and reconciliation, and collateral management.

As well as supporting risk reduction and improved operational efficiencies for individual market participants, well-designed trade repositories can also serve an important role in enhancing the transparency of information to relevant authorities, market participants and the public. This full and timely information can then be used to identify the build-up of systemic risks, help detect market abuse and, if appropriate, facilitate greater
transparency in the market. Through trade repositories, aggregate market statistics might be made publicly available on a regular basis; the resulting increase in transparency may enhance market functioning, and be beneficial to confidence in times of market turmoil.

2.3. Central Counterparties

A highly effective way to manage many of the counterparty and operational risks in financial markets, while also introducing standardisation and other efficiencies into the market, is for transactions to be centrally cleared. Key to central clearing is that, through a legal process known as novation, the numerous bilateral exposures of a market participant can be substituted for a single net exposure to a CCP. The resulting multilateral netting has the potential to substantially reduce the size of individual counterparties’ outstanding obligations relative to bilateral arrangements, while also reducing market-wide collateral needs. By acting as a central hub for market participants, CCPs can improve the effectiveness of default management arrangements, as well as coordinate operational improvements and efficiencies. For instance, CCPs bring standardisation of legal frameworks, streamlined day-to-day payment flows and calculations, and reduced collateral management complexities. They also provide a focal point for regulation and oversight of market-wide risk management, while also reducing information asymmetries in the market more generally.

Given these characteristics, promoting the greater use of CCPs is a cornerstone of the international reform agenda for OTC derivatives. However, in order for a CCP to clear a certain class of products safely and reliably, a number of preconditions must be satisfied:

- the product class must have a robust valuation methodology for that product 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 scenario
- 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.

For traditional exchange-traded instruments, these tests are typically quite straightforward. In contrast, they may be more difficult for some OTC derivatives products, particularly those with highly bespoke contract terms or difficult-to-model price movements. In these situations, it is arguably not appropriate for these products to be centrally cleared. Nonetheless, there are numerous classes of OTC derivatives that are actively traded in quite standardised forms, suggesting that preconditions for central clearing potentially exist.

2.4. Exchanges and Trading Platforms

The advantages of centralised trading venues are well known. They provide a single location for buyers and sellers to meet, reducing search costs, promoting pricing competition through market transparency, and contributing to more resilient and liquid markets. Electronic trading venues can provide a host of additional operational benefits, such as verification of trade information through electronic confirmations, and facilitation of straight-through processing to CCPs and other data systems.
However, as with CCPs, there are certain preconditions for products to be successfully traded through a centralised venue. Chief among these are that products be sufficiently standardised and liquid. There are many factors that affect market liquidity, such as:

- trading volume
- product characteristics
- transaction size
- transaction frequency
- market participant characteristics.

Where markets are liquid, buyers and sellers are able to enter and exit their positions without concern that their transactions will unduly change market prices. However, where there are fewer buyers and sellers for a product, transparency around a participant’s trading intentions could move market prices in anticipation of a trade being executed. Where this reduces a participant’s willingness to proceed with the transaction, this price transparency could result in reduced market liquidity. A range of OTC derivatives transactions are actively traded in standardised forms, indicating that trading venues could be viable for more of these products. Price transparency in more standardised contracts can in turn be useful in providing reference prices for less liquid contracts.

In some circumstances, a market participant may prefer to remain anonymous in undertaking a transaction. But anonymity means that the risk profile of this participant is unknown, and counterparties may be unwilling to trade where this is a significant concern. This is likely to be the case for many OTC derivatives, where counterparty exposures can be of large magnitude and of long duration. One way to facilitate anonymous trading and potentially increase market liquidity in OTC derivatives markets is for a trading venue to use a central clearing arrangement. Since a CCP applies its robust risk management requirements to clearing participants, which in turn will typically apply equivalent requirements to their clients, the market as a whole can be confident that counterparty risks are being well managed, irrespective of the identity of an individual market participant.

2.5. Other Forms of Standardisation

Notwithstanding the benefits of centralised arrangements such as CCPs and trading venues, a proportion of OTC derivatives are always likely to remain outside of these FMIs. In large part, this is because many individual end users of derivatives require tailored transaction terms. In these circumstances, other forms of standardisation of market practices could enhance overall market resilience. For instance, minimum standards of bilateral counterparty credit risk management may be one improvement. Operational improvements, such as use of trade confirmations and straight-through processing, could also improve the robustness of bilateral arrangements. An important foundation for much of this is likely to be the standardisation of data that would come from the widespread use of trade repositories.

2.6. Issues in the Increased Use of Infrastructure and Standards

Partly in response to regulatory encouragement, but also as a result of industry-driven initiatives, global OTC derivatives markets have seen some increase in the use of FMIs over the past decade or so. Central clearing arrangements for some OTC derivatives have existed for a number of years; participant uptake and the entrance of new CCPs have accelerated more recently. In certain classes of OTC derivatives, trade repositories have
been developed to record transaction and counterparty details and manage trade lifecycle events, and market participants have also been increasingly using multilateral trading platforms for more standardised product classes. Progress has also been made by the industry in developing standard documentation, articulating and reporting on risk management best practices, and moving towards more streamlined and standardised operational arrangements.

However, the utilisation and development of FMIs and standards remain incomplete and slow. A key explanation for this is that the benefit to an individual market participant of using a particular arrangement depends on the number of other market participants also using it. The more other participants are already using it, the more beneficial it is to join. However, each decision-maker is unlikely to fully factor in the benefit that their participation would bring for other current and potential participants. This means that, even if there is an arrangement that would be superior for all market participants, its take-up may not occur if the network effect is a significant part of its benefit and there is no mechanism to ensure coordination across participants. An arrangement, once established, can therefore become very difficult to move away from. (The importance of network effects such as this are well understood in many other economic settings.\(^5\)) Where the emergence of FMIs that can serve and benefit the market as a whole depends on cooperation and investment by a large number of participants, an inability to coordinate action may mean there is little incentive for an individual participant to support this venture. While the emergence of some FMIs indicates that these ventures have been successful in receiving the support of some industry participants, their full effectiveness is unlikely to be seen unless the bulk of the market is participating.

3. Consultation

3.1. Introduction

In June 2011 the Council issued a discussion paper that sought to better understand how greater use of CCPs might be promoted in the Australian OTC derivatives market. The paper set out some of the advantages and disadvantages of central clearing, and raised the question of whether Australian regulators should prefer central clearing of markets that were systemically important within Australia (such as Australian dollar-denominated interest rate derivatives) to take place through an Australian-located CCP. Around 30 written submissions were received in response to the paper and numerous meetings were held, including roundtable discussions in Sydney, Melbourne and Brisbane. Participants in these meetings included both Australian and foreign-owned banks, credit unions and building societies, operators of financial market infrastructure, fund managers and institutional investors, legal and advisory firms, large non-financial corporations, government borrowing authorities and industry associations. A list of consultation parties is provided at the end of this paper.

The discussion paper set out a number of propositions, namely:

- that in the absence of Australian regulatory action, domestic CCP solutions may not emerge
- that where a market is of systemic importance to Australia, a move to offshore central clearing might introduce risks to the Australian financial system that do not currently exist
- that the Council agencies considered the market for Australian dollar interest rate swaps to be systemically important within Australia
- that in light of this, the Council agencies were considering the case for a requirement that those instruments be centrally cleared, and as part of that were considering whether such clearing should take place domestically.

Although the primary focus of the discussion paper was on central clearing, some similar issues arise in considering how best to promote a move to other centralised arrangements such as trade repositories or trading venues. Accordingly, the consultations held to date have also provided the Council with information relevant for considering other elements of the international reform agenda for OTC derivatives markets.

3.2. Issues Raised During Consultation

3.2.1. General comments on the international regulatory push toward central clearing

There were many broad statements of support for the intent of the G-20 commitments. However, there were also concerns about the manner in which central clearing is to be implemented. In particular, there were
concerns about fragmentation of global markets, and regulatory inconsistencies and complexities that may arise in a world where jurisdictions have potentially conflicting central clearing mandates.

3.2.2. Products to be included in a mandatory central clearing requirement

Almost all stakeholders agreed on the broad features of an OTC derivatives product that would make it centrally clearable and therefore eligible for inclusion in a mandatory central clearing requirement. These features are those that would allow for the risks of the product to be managed by a CCP, such as: standardisation and a lack of complexity in the terms of the contract; liquidity and broad usage; and readily available pricing information. It was also suggested that any mandatory central clearing requirement define its product scope carefully rather than use a broad definition of ‘derivative’ such as that used in the Corporations Act 2001.

There was broad agreement that Australian dollar-denominated interest rate derivatives were one class of derivatives for which a mandatory clearing requirement could be viably imposed. It was also generally agreed that FX swaps and forwards could be exempted (in line with the proposed exemption from the requirements of the Dodd-Frank Act announced by the US Treasury). A number of stakeholders also called for intra-group transactions to be exempted.

Attention was drawn to some specific derivatives markets, where it was argued that mandatory central clearing could substantially improve risk management practices.

3.2.3. Participants to be included in a mandatory central clearing requirement

Most stakeholders argued that any mandatory clearing requirement should apply only to participants which pose systemic risk, and that exemptions should apply for smaller users of derivatives and institutions using derivatives for hedging purposes only.

A number of stakeholders expressed concerns about the implications of central clearing for corporate and other non-financial users of derivatives. It was argued that the collateral requirements of central clearing are likely to significantly increase costs for these users and possibly discourage them from hedging.

3.2.4. Costs of moving to central clearing

There was consensus that a move to central clearing could increase the cost of dealing in OTC derivatives. Large international banks noted the costs that might be incurred if swap portfolios were cleared across multiple CCPs; such costs might arise from legal complexity, un-netting of portfolios and an increase in collateral requirements. Some stakeholders also questioned whether there would be sufficient securities available to meet the substantial increase in collateral requirements.

3.2.5. Clearing through an Australian CCP

The arguments in favour of a domestic CCP came mainly from Australian stakeholders, with the benefit of Australian regulators having direct oversight of the CCP commonly cited. Other benefits identified included that the design of a domestic CCP (e.g. acceptable collateral, operational timelines, participation requirements) would be tailored to Australian institutions. The scope for margin offsets between OTC and exchange-traded products was also identified. However, some respondents’ support for a domestic CCP was conditional on this not reducing their capacity to engage with international counterparties.
Almost all of the stakeholders that addressed the domestic CCP issue put forward at least one argument against a domestic CCP. The most common of these arguments related to the possible fragmentation of the global market for Australian dollar-denominated interest rate derivatives. Large international banks argued that fragmentation would increase their costs, and possibly lead them to not participate in an Australian CCP. A number of these banks suggested that they would transact wherever the netting and liquidity benefits were greatest. They also noted the legal and regulatory complexity that could arise for them should they face conflicting clearing requirements in different jurisdictions. It was argued by a number of stakeholders that Australian institutions might be put at a competitive disadvantage if they were forced to clear through a domestic CCP serving a smaller, less-liquid fragment of the global market.

Some stakeholders argued that the set-up costs of a domestic CCP would be significant, and possibly not warranted given the Australian market could be served by existing offshore CCPs. However, other respondents suggested that the set-up costs may not be as high as might be expected.

Rather than simply putting forward arguments for or against a domestic CCP, many stakeholders discussed the circumstances in which requiring domestic clearing or setting up a domestic CCP would be acceptable. These were mainly centred on ensuring or facilitating international participation in a domestic CCP. A number of stakeholders called for any domestic CCP to meet the requirements for recognition that are being set down by US and European Union (EU) regulators, such that foreign banks could meet their home-regulator clearing requirements by clearing in Australia. Related to this, it was argued that before proceeding with a domestic clearing requirement, Australian regulators should ensure they have a full understanding of the requirements that offshore regulations would impose on foreign institutions that participate in the Australian market. Some stakeholders also called for clearing of OTC products to be kept separate from a CCP’s other businesses.

### 3.2.6. Risks of clearing through an offshore CCP

Most stakeholders were sympathetic to the Council’s concerns about the clearing of markets systemically important to Australia through CCPs located offshore. Submissions noted the importance of local regulators being able to manage systemic risk. Respondents differed in what this might entail: some argued that the location of collateral was the most important issue, while others argued that full domestic operational capacity was required. Others suggested that Australian regulators could never assert full control over the businesses of Australian institutions or systemically important markets, because many transactions currently occur (and will continue to occur) offshore.

Some Australian financial institutions noted concerns about counterparty credit risk to their clearing member should they participate in a CCP indirectly. There were also concerns about legal protections for posted collateral, particularly when that collateral is posted with an offshore-based entity.

A number of stakeholders called for a (possibly international) regulatory plan for handling a serious default in a CCP.

### 3.2.7. Segregation and portability, and other legal issues

Submissions from industry bodies argued against prescribing minimum standards (via law or regulation) for segregation and portability, suggesting instead that clearing members and CCPs should be free to contract on these matters. Other submissions suggested that legal protections around a CCP’s ability to port client positions require clarification. A number of stakeholders called for the extension of protections under Australian netting
and insolvency legislation to all of a CCP’s default management processes (e.g. position close-out and transfer). It was also suggested that the operation of offshore CCPs be given recognition under Australian law.

Some stakeholders called for examination of other issues related to clearing through an offshore CCP, including tax consequences and the scope for conflict between Australian and foreign legal requirements.

3.2.8. Interoperability

Almost all of the stakeholders that addressed interoperability argued that, while it could provide market efficiency benefits, it was unlikely to occur in the short term. One submission argued that interoperability was unlikely to be practicable for interest rate derivatives, while another raised concerns about the consequences of interoperability for risk in the financial system.

3.2.9. Extraterritoriality

Most stakeholders recognised the possible extraterritorial effects of the regulatory regimes being developed offshore, and called for the Australian response to be consistent with, and recognised by, those regimes.

3.2.10. Basel III capital framework

Most stakeholders argued that the Basel III capital rules will create an incentive to move to central clearing because exposures to a CCP will generally attract a lower capital charge than other bilateral exposures. However, some submissions expressed uncertainty as to whether the new capital charges will result in a significant move to central clearing before the end of 2012.

Some Australian financial institutions noted that bespoke OTC derivatives used to hedge specific risks might become too costly to deal in from a capital charge perspective. This may lead to some end users (most likely corporates) becoming either unwilling or unable to hedge risks appropriately.

3.2.11. Suggested ways forward

A number of stakeholders made specific recommendations for the way forward for the Australian market. Some stakeholders suggested that regulators impose mandatory trade reporting requirements first, and then use these data to inform a decision on whether mandatory central clearing was desirable (and whether it should or could occur through an Australian CCP). Another stakeholder suggested a comprehensive scenario modelling exercise involving the industry. Some Australian stakeholders suggested forming an industry and regulatory working group to design a domestic CCP solution (should the regulators require domestic clearing).
4. International Developments

4.1. Introduction

It is important that Australian policy responses be consistent with developments in the international regulatory environment. As with many other countries, the Australian OTC derivatives market is highly international in nature. Many Australian-based market participants are active in offshore markets. Similarly, many significant participants in the Australian market are foreign entities. Accordingly, regulatory developments in offshore jurisdictions are very likely to have some spillover effect on the configuration and activity of the domestic market. However, Australia is not alone in this, and the importance of cross-border harmonisation in regulatory approaches to OTC derivatives market reform is increasingly appreciated in all jurisdictions. To assist in coordinating domestic efforts, and to reduce the scope for regulatory arbitrage, multilateral agencies and standard-setting bodies have a number of relevant work streams under way.

4.2. The European Union and the United States

The legislative basis for the US regulatory regime is found in Title VII of the Dodd-Frank Act, passed in mid 2010; however, US authorities have granted temporary relief from the provisions of the Act while they develop detailed regulations and to allow some time for the industry to make preparations for compliance. The main relevant legislation in the EU, the European Market Infrastructure Regulation (EMIR), was agreed in February 2012. Draft technical standards are due to be submitted to the European Commission by 30 June 2012, with the aim of enacting the new regulatory regime by the end of 2012.

In both jurisdictions there will be a near-universal requirement to report OTC derivatives transactions to a trade repository, and regulatory regimes for trade repositories (swap data repositories in the US) have been set out. The EU and the US have taken similar approaches to clearing requirements for OTC derivatives. Under a ‘top-down’ approach, the US Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC), and the European Securities and Markets Authority (ESMA) can designate classes of OTC derivatives as subject to central clearing requirements on their own initiative, even if there is no CCP offering clearing services for that class. Under a ‘bottom-up’ approach, the regulators can act to mandate central clearing of OTC derivatives that CCPs have been authorised to clear.

Neither set of regulators has announced which classes of OTC derivatives will be subject to central clearing. In making their decision the US authorities must take into account factors such as the size of exposures, trading liquidity, availability of pricing data, systemic risk implications and the effect on competition. The factors to be considered by ESMA are broadly similar. Mandatory central clearing requirements in the US will apply to a broad range of participants, with exemptions for non-financial entities using OTC derivatives to hedge commercial risk. The SEC is also considering an exemption for small financial institutions. In the EU, mandatory
central clearing is proposed for all trades involving financial institutions, or non-financial institutions whose non-hedging related trades exceed a certain threshold – an exemption will apply to pension funds for a number of years.

Both the EU and US regulatory regimes allow for the use of foreign CCPs to satisfy clearing requirements, provided that regulators can be satisfied that they are subject to comparable supervision in their home country.

In the US, the Dodd-Frank Act imposes margin requirements on dealers and major swap participants entering into non-centrally cleared transactions. The Act does not provide an exemption for transactions with end users (although US regulators have issued draft rules which propose that margin requirements would not apply to non-systemically important market participants and end users). The EU regime will similarly require financial counterparties (and non-financial counterparties subject to the central clearing obligation) to have procedures to both collect and post margin, and to require an appropriately segregated exchange of collateral or an appropriate and proportionate holding of capital for non-centrally cleared transactions.

As with other aspects of the G-20 commitments, the US legislative and regulatory framework for mandatory trading is more advanced than that of other major jurisdictions. In the US, a new category of electronic trading platform, the Swap Execution Facility (SEF), has been created, and draft rules relating to how SEFs should operate have been published. The US framework contemplates that any product that is mandatorily centrally cleared will be subject to a mandatory electronic trading requirement. The European Commission has adopted proposals for the Markets in Financial Instruments Regulation (MiFIR), which includes a framework for a new category of electronic trading platform, the Organised Trading Facility (OTF), and which will empower ESMA to mandate trading of OTC derivatives products on OTFs or other types of exchanges or electronic platforms. MiFIR will become law in each EU member state upon adoption by the European Parliament and the European Council.

4.3. Other Jurisdictions

In Japan, the Financial Instruments and Exchange Act was passed in May 2010, granting the Japanese Financial Services Agency (JFSA) the authority to regulate OTC derivatives. As in the US and EU, only those classes of OTC derivatives identified by regulators will be subject to mandatory central clearing, chosen on the basis of volumes and the effect of central clearing on settlement risks in the domestic market. Mandatory central clearing of these derivatives applies to any transaction where at least one counterparty is a financial institution or a dealer in derivatives. The Japanese regime requires that derivatives with credit events that are closely associated with Japanese corporate bankruptcy law be cleared by a Japanese CCP. Other prescribed OTC derivatives can be cleared through foreign CCPs that have been licensed by the JFSA, or which have an interoperability arrangement with a domestically authorised CCP. The rules regarding OTC derivatives are expected to be finalised by November 2012 with the passing of a cabinet ordinance and other measures. Japan does not include an execution mandate in its obligations for OTC derivatives; however, the JFSA anticipates establishing a draft regulatory framework to require certain OTC derivatives to be executed on electronic trading platforms.

Elsewhere in Asia, the Hong Kong Monetary Authority (HKMA) and Hong Kong Securities and Futures Commission (SFC) are currently consulting on their approach to mandatory central clearing. They expect to publish draft regulations in the first half of 2012, with the aim of having final regulations and necessary amendments to the Securities and Futures Ordinance passed by the legislature by the end of 2012. Hong Kong regulators have proposed initial mandatory central clearing of certain interest rate swaps and non-deliverable
forwards. They anticipate an eventual phased expansion to cover other interest rate derivatives, foreign exchange derivatives and other asset classes such as equity derivatives. The requirements would apply to any trade involving a Hong Kong entity as a counterparty, or where a Hong Kong deposit-taking institution or securities licensee has originated or executed the transaction, provided that both counterparties exceed a volume threshold. The HKMA and SFC are considering whether to require clearing through a domestic CCP for certain systemically important products. Hong Kong authorities have indicated they will consider imposing capital requirements and margin requirements for non-centrally cleared derivatives in line with relevant international standards. Hong Kong authorities have announced an intention to introduce a legislative framework to allow for mandatory trading obligations, but do not expect to issue a mandate in the immediate future.

The Monetary Authority of Singapore (MAS) has released a consultation document outlining its proposed approach to central clearing of OTC derivatives. The MAS proposes to follow a similar ‘top-down’ and ‘bottom-up’ approach to the US and EU in designating OTC products for mandatory central clearing. The MAS has indicated that non-deliverable forwards and Singapore dollar- and US dollar-denominated interest rate swaps are likely to be subject to mandatory central clearing, while it proposes to exempt foreign exchange forwards and swaps. Mandatory central clearing requirements would apply to any trade where at least one leg of the contract is booked in Singapore, but with an exemption for entities with relatively small exposures. The MAS does not propose to mandate the use of a domestic CCP, allowing mandatory central clearing to take place through foreign CCPs subject to equivalent regulation in their home jurisdictions. The consultation document does not set out a timeframe for implementation, but the MAS has previously stated an aim to introduce the new regime, including changes to the Securities and Futures Act, by the end of 2012.

The Canadian Securities Administrators (CSA) is publishing a series of eight consultation papers on OTC derivatives regulation. It has proposed that a regulatory regime be created for trade repositories, and that there be a capacity to mandate reporting of OTC derivatives transactions. The Canadian regulators are also currently consulting on the approach to central clearing of OTC derivatives. The CSA has indicated that derivatives trades which are appropriate for central clearing and capable of being centrally cleared should be subject to mandatory central clearing, taking into account similar factors to those considered by US regulators. The CSA has also indicated that it may consider exempting smaller, non-systemically important participants from mandatory central clearing requirements. Canada is reviewing whether to require the execution of OTC derivatives trades on an exchange or electronic trading platform. However, the CSA has stated that a trading mandate could apply only to those products that have sufficient standardisation and liquidity, and that pose a systemic risk.

4.4. Work of International Groupings

4.4.1. Financial Stability Board

The FSB remains keenly interested in developments in OTC derivatives infrastructure, and is regularly monitoring progress by individual jurisdictions. An OTC Derivatives Coordination Group has been established, comprising the chairs of relevant standard-setting bodies, with an initial focus being to establish adequate safeguards for a global framework for CCPs. The FSB has also sponsored work on the key attributes of resolution regimes

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for systemically important financial institutions, with an aim of reducing concerns about too-big-to-fail institutions.\textsuperscript{8} While the focus of this work to date has been on resolution arrangements for large globally active banks, this framework is also intended to apply to other financial institutions such as FMIs, and further work is being undertaken in this area.

4.4.2. CPSS-IOSCO

Given the crucial role of FMIs in the financial system, and to ensure that there are high standards of risk management in all jurisdictions, internationally agreed standards have been jointly developed by the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO). Recent financial events and the push for more central clearing of OTC derivatives have motivated these standard-setting bodies to update these principles. A consultative report on the revised approach, \textit{Principles for Financial Market Infrastructure}, was published in March 2011, and a final report is due for publication in coming months.\textsuperscript{9} The Australian regulators would expect to apply these principles to Australian-based FMIs.

The CPSS-IOSCO draft principles also set out standards in respect of trade repositories that should be applied by regulators. These cover areas such as a trade repository’s legal basis, governance, risk management, third party access arrangements and efficiency. There is also important ongoing work by CPSS-IOSCO to set standards for regulatory data access arrangements that would apply to trade repositories.

Against this evolving landscape, CPSS-IOSCO has published a report on standards for data reporting and aggregation that is expected to be adapted to domestic frameworks.\textsuperscript{10} In addition to international work on standards for trade reporting and trade repositories, there is a major international initiative to develop unique Legal Entity Identifiers (LEIs) for entities transacting in financial markets.\textsuperscript{11} This is largely an industry-led exercise, though with the strong encouragement and involvement of public sector agencies and standard-setting bodies. The adoption of LEIs across the industry is expected to facilitate the aggregation and analysis of data, as well as create opportunities for enhancing individual market participants’ internal risk management and transaction processing systems.

4.4.3. IOSCO

In the past year IOSCO has published two reports in relation to the electronic trading of OTC derivatives. In broad terms, these reports describe preconditions to successful electronic trading and explain the different forms in which electronic trading can and does take place.

The first report highlighted that OTC derivatives are suitable for trading on an electronic platform when there is adequate standardisation of the product’s contractual terms and operational processes, and when there is sufficient market liquidity.\textsuperscript{12}

The report identified the following benefits to increasing the use of trading platforms:

\textsuperscript{11} More information is available at <http://www.financialstabilityboard.org/list/fsb_publications/tid_156/index.htm>.
• more efficient price discovery
• increased competition which may potentially lower trading costs and improve liquidity
• reduction in systemic risk (due to enhanced market liquidity)
• improved regulatory supervision of the market for misconduct (as a result of increased centralisation).

The report noted that other reforms such as central clearing, reporting to trade repositories and increased standardisation will also yield benefits in this regard.

The second IOSCO report provides a factual presentation of the different trading models currently available, and was intended to assist regulators and policymakers in developing or implementing derivatives trading policy proposals. There is a wide range of trading models that can be described as electronic trading, from exchange trading through pre-trade transparent central limit order books, to trading on a platform operated by a participant who is a counterparty to every trade.

Significantly, the IOSCO reports are not prescriptive in recommending which type of electronic trading should be imposed by individual jurisdictions.

IOSCO has recently published a report setting out guidance for regulators in establishing any mandatory clearing obligations within their jurisdiction. Recommendations cover matters such as:

• processes for determining whether a mandatory clearing obligation should apply to a product or set of products
• the factors to be considered around potential exemptions to a mandatory clearing obligation
• the establishment of appropriate communications among authorities and with the public
• the consideration of relevant cross-border issues in the application of a mandatory clearing obligation
• the importance of monitoring and reviewing the overall process and application of a mandatory clearing obligation.

While the report is mainly addressed to regulators implementing mandatory regimes, it also provides information for stakeholders subject to any mandatory clearing obligations.

4.4.4. Basel Committee on Banking Supervision

In November 2011 the Basel Committee on Banking Supervision (BCBS) released a second consultative paper on the capitalisation of bank exposures to central counterparties. Since then BCBS has been reviewing proposals with the intention that, consistent with the G-20 objectives, the final rules will provide capital incentives for banks to centrally clear derivatives for both clearing member transactions and client transactions. BCBS is currently refining the rules, with the aim of ensuring that there are sufficient incentives for clearing members to continue offering client clearing services, and to ensure that the rules do not lead to other unintended consequences. A final proposal will be presented to BCBS in the near future, for decision on the text of the rules and arrangements for their publication and implementation.

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4.4.5. Margin requirements for non-centrally cleared transactions

Given that many OTC derivatives will not be centrally cleared, a working group to study and propose margin requirements for non-centrally cleared transactions was established in 2011. This group is co-chaired by BCBS and IOSCO, with input from other Bank for International Settlements (BIS) committees, and intends to issue a consultative report on proposed international standards around the middle of the year. The key objectives of this work are to:

- ensure consistency and comparability of margining requirements across international jurisdictions so as to limit opportunities for regulatory arbitrage and competitive inequalities
- limit and mitigate systemic risk and interconnectedness in the derivatives markets
- promote the safety and soundness of key participants in the derivatives markets.

These objectives recognise that consistently applied margin requirements on non-centrally cleared derivatives can reduce risk in the financial system. It is also acknowledged that the effectiveness of capital incentives to favour central clearing might be reduced in the absence of margin requirements for non-centrally cleared transactions. Accordingly, all non-centrally cleared derivatives may be subject to margining requirements, regardless of the reasons why a derivative is not centrally cleared. It is intended that entities entering bilateral transactions will collect and/or post initial margin as well as variation margin, unless they are exempted from doing so. An exemption from mandatory clearing would not necessarily lead to an exemption from margining requirements.

5. Analysis and Further Considerations

5.1. Introduction
Since undertaking the consultation process, the Council has been able to reflect on and further analyse many of the factors that need to be considered in trying to drive more uptake of centralised arrangements. Any policy proposals must take into account the nature of the OTC derivatives market, and also how FMIIs might interact with this market. It has also become apparent that the interaction of the OTC derivatives market with other financial markets significantly complicates any decision-making in this area. This section sets out some of these considerations.

5.2. The Nature of the Australian OTC Derivatives Market
Through the consultation process, the Council was able to develop a deeper understanding of Australian OTC derivatives market practices and participants. The volumes and types of transactions undertaken in Australia are small by global standards, comprising only around 2 per cent of global notional turnover. But as is the case in most countries, Australian-located OTC derivatives market participants undertake a large amount of cross-border activity. The technology supporting financial markets means that a participant located in Australia can very easily transact with a participant located offshore. It is common for foreign-owned market participants active in the Australian market to centralise the booking of their global OTC derivatives transactions in an offshore entity. This cross-border activity permits greater economies of scale and scope than might otherwise obtain in the domestic market alone. For instance, the ability of locally based market participants to interact with offshore counterparties increases the range of available counterparties and products, in turn enhancing the depth and breadth of the Australian market.

The largest dealers in the Australian OTC derivatives market are perhaps a more heterogeneous group than in major offshore financial centres. While the local market is served by a range of foreign banks with significant operations around the world, the larger Australian-owned banks – with generally more domestically focused operations – also play an important market-making role. Australia has a very large managed funds industry, but within this more derivatives-intensive managers (such as hedge funds) comprise a very small share of activity. Financial institutions vary widely in the type of derivatives they use. Some participants only use simple single-currency interest rate derivatives to hedge interest rate risks. Others use a range of single- and cross-currency derivatives, FX derivatives and credit derivatives to manage and synthesise exposures. Derivatives usage by corporates is widespread, covering single- and cross-currency interest rate, FX and commodity derivatives.

Among users of derivatives, it is very common for positions to be collateralised or otherwise secured against the net mark-to-market valuation of all outstanding exposures, rather than collateralised by individual derivatives class.
5.3. Capital Charges and Incentives for Central Clearing

In late 2011 APRA collected counterparty exposure data from several Australian banks active in OTC derivatives, in order to understand the nature of the exposures and the potential impact of the Basel III rules. When comparing the bilateral and the CCP frameworks, there are two opposing effects that need to be considered. On the one hand, the central clearing of certain standardised OTC derivatives is likely to lead to reduced netting within current bilateral portfolios. Counterparty exposures may increase, depending on the proportion of existing bilateral portfolios that are moved to central clearing or that remain bilateral. In addition, clearing through CCPs can increase the demand for collateral, since initial margin will need to be posted. On the other hand, multilateral netting can reduce the net counterparty exposure of cleared products and thereby reduce capital requirements.

The data suggest the following tentative conclusions:

- The notional exposures are dominated by single-currency interest rate products. However, these tend to generate lower counterparty risk than other products not currently able to be centrally cleared, such as cross-currency interest rate swaps and FX derivatives.
- Central clearing of single-currency interest rate derivatives is likely to result in a requirement to post additional collateral to meet initial margin requirements.
- Assuming the final Basel III rules are such that clearing members are not dis-incentivised to clear client trades, the data suggest that the capital rules will provide sufficient incentive for Australian banks to centrally clear transactions.

However, it is difficult to be definitive in drawing conclusions from the data provided, as any analysis of capital incentives and liquidity impacts for central clearing is complicated by several factors:

- It is not possible to know how banks will adjust their current bilateral and centrally cleared portfolios given potential variations in the scope of mandatory clearing across jurisdictions, Basel III capital requirements for bilateral trades, the CCP rules, and possible future changes in margin requirements. However, it is expected that banks’ activities will change as they consider the need to minimise collateral requirements and capital costs.
- Separately, international regulatory work on margin requirements for bilateral trades (discussed in section 4.4.5) is currently under way, and will not be finalised until mid 2012 at the earliest.
- The analysis has been done at a particular point in time of a sample of the banks’ largest counterparty credit exposures, and the estimated effects will be heavily dependent on market levels at that point in time.

Any conclusions must be preliminary, given that a number of assumptions had to be made in the analysis. While the intention of the Basel III rules is that there will be sufficient incentives for central clearing, the Council acknowledges that there is some uncertainty around how this will play out in the Australian market. If capital incentives did not prove sufficient to move the market in the intended direction within a satisfactory timeframe, other regulatory measures may be necessary.

5.4. The Design and Nature of Centralised Infrastructure

In developing a policy response to the question of how to increase the use of multilateral FMIs, the design and economics of these arrangements are important considerations.
Given the network externalities of an FMI, it is likely that once a sufficiently large proportion of the market uses this arrangement a tipping point will be reached and other market participants will choose to join. As discussed in section 2.6, this means that once a particular FMI is established, it can be difficult for the market to move to an alternative arrangement. While this can be an advantage to an incumbent provider, the longer-run viability of an FMI is still generally contingent on its having continued support from market participants. An FMI’s systems will need to be compatible with participants’ in-house systems, and therefore require cooperation both in establishing itself and in making changes over time. Similarly, the risk management arrangements of an FMI will typically depend on participant cooperation – it is usual practice for staff from market participants to sit on risk committees and review boards of FMIs to provide necessary market expertise. Feedback from market participants can also help shape an FMI’s ongoing product innovation.

It would be preferable, therefore, if any regulatory intervention could be designed so that problems of market coordination were overcome, but the symbiotic nature of the relationship between FMIs and participants was not disrupted. It would also be important that regulation was flexible enough to adapt to, and accommodate, an evolving market structure. The organisation and design of FMIs, the activity of market participants, technological developments, and the wider regulatory environment are all somewhat endogenous. It would be desirable if regulation could be implemented in a way that did not overly restrict market evolution and innovation.

The strong economies of scale and scope of FMI services, as well as network effects, are likely to mean that – absent regulatory constraints – market participants will coalesce around a relatively small number of infrastructure providers. Given the global nature of the markets for many OTC derivatives, it is likely to be the case that many of the transactions undertaken in Australia could be supported by infrastructure located either in Australia or in offshore jurisdictions. It is also possible that, given the relatively small size of the Australian market, local participants could be more likely to use FMIs located in offshore jurisdictions than might be the case in jurisdictions that are home to larger markets. The time zone differences with the largest global markets in North America and Europe could, however, pose operational challenges.

Cross-border activity of FMIs also poses significant jurisdictional and oversight challenges, which need to be given careful consideration in developing reform proposals. Questions such as legal compatibility, protections for clients, and supervisory requirements have been major issues for many other jurisdictions, including large markets such as the US. While various proposals have been considered in individual jurisdictions and international fora, there is very little practical experience to guide regulators in the best way to accommodate the cross-border activity of FMIs.

5.5. Non-centrally Cleared Transactions

It is clear that not all OTC derivatives will be able to be centrally cleared. However, it remains important that these transactions are robustly risk managed.

The bilateral nature of these non-centrally cleared transactions provides significant flexibility in tailoring agreed terms to individual circumstances, which can be of benefit for many counterparties. However, a consequence of this flexibility is that parties’ relative negotiating power can be a factor in determining the strength of risk management arrangements. For instance, high volume clients may be able to negotiate more favourable terms regarding collateral agreements. Over the lifetime of a contract, commercial considerations can also be a factor in determining how strongly contractual provisions are enforced. The potential for an inadequate
application of risk management standards is therefore a key disadvantage of bilateral arrangements. This is an area where it could be appropriate for regulators to mandate minimum requirements.

Collateralisation agreements are widely used across the financial sector in Australia; non-financial usage is much lower. For most classes of market participants, collateralisation agreements generally only cover mark-to-market changes in exposures; in contrast, centrally cleared arrangements require initial margin to also be posted. An important role of initial margin is to serve as a protection against replacement cost risk, should a counterparty default on a position and prices move significantly before a non-defaulting counterparty is able to re-establish a position in the market. Highly leveraged and active derivatives end users, such as hedge funds, will often post an ‘independent amount’ to their brokers that serves much the same purpose as initial margin in a centrally cleared market, though this is an exception to wider market practice. However, since initial margin would tend to net out for positions between banks and other large counterparties, collateralisation agreements between these types of counterparties often do not require initial margin payments at all. While in these cases it would be possible for initial margin to be held at a third party, this has not been a widespread practice.

The traditionally diffuse nature of the OTC derivatives market has also hindered the development of standardised arrangements that might facilitate risk management enhancements. In-house and third-party vendor systems have been developed to streamline the management of some transaction lifecycle events such as trade confirmations, mark-to-market valuations, collateral management, portfolio reconciliation and settlement of cash flows. But often the effectiveness of these depends on how widespread they are used, and the degree of standardisation in other systems.

These disadvantages in part explain why central clearing arrangements can be preferable. However, recognising that some participants will continue clearing some transactions on a bilateral basis, regulatory steps to impose minimum requirements and drive additional standardisation in some aspects could be appropriate for some non-centrally cleared transactions. Imposing margin requirements may also reduce incentives to avoid any central clearing requirements.

5.6. Implications for Other Financial Markets

Changes in clearing arrangements for OTC derivatives are likely to result in a significant volume of collateral being posted to central counterparties as initial and variation margin. With many counterparties clearing derivatives transactions through members of CCPs, these reforms will see clearing members handle (and hold) larger volumes of client collateral. For non-centrally cleared transactions, any increase in collateralisation (whether initial or variation margin) will similarly see many market participants posting and holding larger amounts of collateral.

The relative shortage of high-quality liquid assets in Australia could pose a challenge for domestic market participants. Central counterparties generally only accept the highest quality collateral, which means that a pick-up in the extent of central clearing is likely to increase demand for such assets in Australia. Any increase in the use of initial margin for non-centrally cleared OTC derivatives would add to this. The introduction of the Liquidity Coverage Ratio (LCR) as a part of Basel III will also increase demand for high-quality liquid assets.

The increased demand for relatively scarce assets that can serve as collateral for initial margin will inevitably increase the demand for collateral management and collateral transformation services. Tri-party collateral management services aim to use the pool of available collateral more efficiently and are usually provided by private financial institutions and central security depositories. Collateral transformation is usually achieved in the
interbank market through repurchase transactions. Banks providing collateral transformation services manage their risks through haircuts that increase as the quality of the collateral decreases. They have also traditionally generated income by on-lending the securities that they have taken as collateral. Banks are also increasingly entering into collateral swaps with other institutions, such as pension funds, to obtain high-quality liquid assets.

The financial crisis has highlighted the risks inherent in these activities, which form an important part of what is known as the shadow banking system. Regulators and supervisors have responded in a variety of ways. Domestic regulators and the international regulatory community have made a number of proposals to improve the resilience of repo markets. For example, the Federal Reserve Bank of New York has proposed reforms to tri-party repo arrangements in the United States to mitigate the intraday liquidity risks that are concentrated in two large financial institutions. Other central banks have taken steps to encourage greater use of CCPs for repo transactions in their markets. At the international level, many of the Basel III proposals are designed to ensure that the provision of lines of credit, which are a common feature of prime-brokerage relationships, appropriately incorporate a price for liquidity risk. The FSB has workstreams looking at ways of reducing the risks inherent in securities lending and repo markets; and the subject of protecting client collateral is being considered in a number of fora, including the working group on non-centrally cleared derivatives (see section 4.4.5). Where these reforms restrict the extent to which financial institutions can reuse collateral, the shortage of collateral discussed above will be even more acute.

5.7. Clearing Participants and Client Money Considerations

As larger numbers of market participants post margin to support OTC derivatives positions, it will be important to ensure that segregation and portability arrangements allow these participants to maintain their hedges and/or regain posted collateral in the event their bilateral counterparty or clearing member defaults. Ensuring the effectiveness of these arrangements is particularly important where a counterparty’s collateral is commingled with that of other counterparties (whether clients, or a dealer or clearing participant). Otherwise, a counterparty default might mean these market participants are exposed to market, credit and liquidity risks which, depending on the circumstances, could have systemic implications. At the same time, protections available to a counterparty posting collateral should not interfere with the other counterparty’s capacity to secure and exercise claims over this collateral in the event of the other party’s default.

In Australia, these arrangements are set out in the ‘client money rules’ of the Corporations Act (Division 2 of Part 7.8). All money paid by clients to Australian Financial Services Licence (AFSL) holders, including licensees operating in OTC and exchange-traded markets, are subject to these rules. Most clearing participants of Australian-licensed CCPs would be required to hold an AFSL (though some are exempt). This means that, in the case of centrally cleared transactions, the operating rules of the CCP and the client money rules will both apply to clearing participants and determine how clearing participants should handle client collateral. For non-centrally cleared transactions, it is the client money rules alone that regulate arrangements for initial margin posted to an AFSL holder. As part of a review of the effectiveness of these provisions, a discussion paper was issued by the Treasury in November 2011, with consultation closing in February 2012.17 Although the paper was most focused on retail OTC transactions, many of the issues and questions raised are also relevant to wholesale OTC derivatives transactions and therefore will inform the Council’s thinking in this area.

In addition, the central clearing of OTC derivatives transactions raises questions that were not specifically posed in the Treasury discussion paper – for instance, how clearing members and CCPs are required to handle and protect client collateral, treatment of client collateral in the bankruptcy of a clearing member or CCP, and account portability.

Protection for collateral posted as margin, especially initial margin, may need to be reviewed in light of other jurisdictions’ collateral rules and insolvency rules, whether clearing participants for Australian entities are subject to overseas regulation, and how margin posted by Australian entities may be affected by these arrangements. A recent instance of the importance of these questions is the default of MF Global.

Where clearing is taking place through an offshore CCP, it is quite likely that some Australian end users will be posting collateral to a clearing participant that is a foreign entity. The Council notes that ASIC class orders currently exempt some of these overseas entities from the requirement to hold an AFSL, and that it may be appropriate for this exemption to be revisited – particularly if a clearing participant is clearing a significant proportion of an Australian market. While the Council would not be looking to duplicate regulation, it would be important to understand how a foreign-based entity’s home regulation would apply to transactions involving Australian market participants.

Any changes to the client money rules would need to be considered in light of other initiatives affecting CCP regulation under consideration by the Council. These include the Council’s review of FMI regulation in Australia and the revised CPSS-IOSCO principles due for release in coming months. Since the regulatory initiatives under consideration will likely require CCPs and industry participants to undertake potentially significant operational and systems changes, this may be an opportune time to implement enhanced protections for clients. In particular, there could be scope for changes to CCP and clearing participant account structures to be reworked.

Currently, there are three types of account structures in general use for the handling of collateral posted by members of CCPs and their clients: the ‘complete’ or full physical segregation model, legal segregation with operational commingling (LSOC), and the ‘futures model’. At least some CCPs that clear OTC derivatives will likely offer more than one account structure to their clearing members and the clients of clearing members, and as the market develops, CCPs may offer variations of these account structures.

• **Full physical segregation**

Under the full physical segregation model, collateral posted by clients is held in individual accounts, fully segregated from the accounts of clearing members and other clients. The use of individual accounts is expected to provide the most robust protection against what is described as ‘fellow-customer risk’. This model is also expected to facilitate account portability and timely distribution of collateral that has not been ported, as the account structure is expected to give the CCP visibility of clients’ positions and attached collateral and ensure the CCP has access to client collateral.

However, the full physical segregation model may entail the highest operating costs, and clearing members may be expected to pass these costs on to their clients.

In Europe, EMIR requires CCPs and clearing members to offer full physical segregation as an optional account structure to clearing clients, for a reasonable commercial cost.

• **Legal segregation with operational commingling**

Under the LSOC model (a gross omnibus approach), client margin is passed directly from a clearing member to the CCP without netting across client positions. The clearing member, as well as the CCP, is
required to maintain legally segregated records of client positions and collateral. However, client collateral is held by the CCP in an omnibus account. The CCP will have limited or no recourse to client collateral in the event of a clearing participant default. This segregation arrangement is intended to provide some protection against ‘fellow-customer risk’ and facilitate account portability, though the protections for clients may be less robust than under the full physical segregation model.

The LSOC model may entail higher costs than the futures model, but the costs may be lower than the full physical segregation model.

The CFTC issued final rules under the Dodd-Frank Act requiring Futures Commission Merchants (FCM, or clearing members) and Derivatives Clearing Organizations (DCO, or CCPs) to offer the LSOC account structure to clearing clients.

- **Futures model**

  Under the futures model (a net omnibus approach), all client collateral is pooled by the clearing member, which posts to the CCP a net margin requirement calculated across its entire client portfolio. There is no requirement for the CCP to maintain legally segregated records of client positions and collateral. This model is expected to provide the lowest level of protection against ‘fellow-customer risk’, and may reduce the likelihood of account portability compared with the other two models.

  The futures model is expected to entail lower margin costs for the clearing members, which may lead to lower costs for their clearing clients.

Clearly each of these models involves trade-offs between client protections and operational and financial efficiencies. Any proposed reforms to the client money rules would need to ensure they have the capacity to accommodate different business models across OTC and exchange-traded markets, and the range of account structures that may be used by FMIs. While the Council is particularly interested in client protection considerations, it would like to understand further the wider implications of any shift in clearing arrangements before taking a position on this issue.
6. Proposed Policy Approach

6.1. Introduction

Drawing on the foregoing discussion, the Council recommends the proposed policy approach set out below.

Broadly the Council considers that it is preferable for an increased uptake in centralised arrangements for OTC derivatives to be an industry-led initiative, with additional impetus coming from some changes to incentives. However, to ensure that desired outcomes are reached in acceptable timeframes, a capacity to mandate certain obligations should also be available, though any such decision should only be made after thorough consultation. It is acknowledged that both the relatively small size and the cross-border nature of the Australian market might pose a challenge to the success of any domestic regulatory initiative. However, since this is also the case for most other countries, it is in all jurisdictions’ mutual interests that regulatory reform proposals for OTC derivatives markets are as harmonised and coordinated as possible. Global harmonisation would also reduce the risk of disruptions to cross-border activity which contributes to the efficiency and liquidity of domestic markets.

The following sets out the proposed approach for the three elements under discussion.

6.2. Trade Repositories

Trade repositories are a relatively new class of financial market infrastructure, and many market participants will be unfamiliar with their capacity. For individual market participants, centralisation of trade data may assist them in understanding their own risks and exposures. Given the use of standardised reporting formats, the use of trade repositories is also likely to encourage operational efficiencies in post-trade processing, either by the trade repository or by other service providers that use the data maintained by the trade repository. If trade information is submitted by both counterparties to a trade, data from the trade repository can be used to facilitate electronic trade matching and confirmation, settlement of payment obligations, trade novation and affirmation, portfolio compression and reconciliation, and collateral management. With the shift to automated post-trade services in the Australian market having been slower than in some overseas markets, there is significant scope for participants in the Australian market to benefit through improved risk reduction, operational efficiency, automation and legal certainty.

Reporting to trade repositories should facilitate the maintenance of a reliable and comprehensive source of information on participant trading activity, which would be useful to many regulators in performing their respective functions. It is expected that this increased transparency will assist authorities in identifying vulnerabilities in the financial system and, more broadly, to develop well-informed policies to promote financial stability. Information from trade repositories will be particularly useful in times of financial distress, where rapid and reliable access to accurate data may assist prudential and systemic regulators in their functions. From a
market supervision perspective, transaction information stored in trade repositories in some product classes in particular, such as equity derivatives and credit derivatives, has the potential to assist investigations into market misconduct.

Notwithstanding the substantial benefits that could accrue to Australian market participants in using trade repositories, other considerations might slow the uptake of these services. For instance, participants may need to make some investment in systems in order to pass data to a trade repository. Other participants may be concerned about commercially sensitive information being held by a third party. These impediments might be overcome should a sufficiently large share of the market move to use trade repositories, given the strong network effects at work in financial market arrangements and conventions. But should this not occur, and since the effectiveness of trade repository services is maximised when all transactions of all counterparties are recorded, there may be a case for regulatory action to promote universal uptake of trade repositories for the collective benefit of market participants. For regulators, as complete an information set as possible enhances their understanding of the OTC derivatives market. In addition, as reporting to trade repositories will give regulators a more accurate understanding of market activity and participation, these data will underpin regulators’ consideration of the merits of other regulatory reform proposals for OTC derivatives.

To that end, the Council recommends that a legislative framework be introduced to enable the imposition of a mandatory reporting requirement in respect of certain products and participants. However, thorough public consultation should be undertaken prior to the implementation of any such obligations. Given the reliance of both market participants and regulators on the transaction information collected and retained by trade repositories, and the commercially sensitive nature of this information, it is important that operators of these types of FMIs meet high standards of operational risk management and integrity. Therefore, it is important for these entities to be licensed and for regulators to be able to effectively supervise and hold accountable trade repository operators. The revised CPSS-IOSCO principles will be important in this regard.

International encouragement of trade repositories has seen the emergence of trade repositories for each class of OTC derivatives – credit, interest rates, equity, commodity and foreign exchange. To date the dominant trade repository operator in each of these classes has been DTCC, which levies fees on a cost-recovery basis. However, other providers are either actively or prospectively developing similar services, for which their commercial terms are not yet known. It may be that multiple trade repositories in a given asset class can co-exist. The Council would prefer to leave questions of industry structure to the market to decide, and the intention of any mandatory reporting obligations would be that they could accommodate a wide range of industry outcomes. Nonetheless, the appropriateness of an available trade repository’s terms and conditions would likely be a factor in any decision to mandate trade reporting, which in turn may have an effect on industry structure.

To allow for competition and to facilitate the exploitation of potential economies of scale in trade repository operations, it would be appropriate to allow trade repositories to operate across borders. Indeed, the Council agencies understand that some Australian ADIs, other AFSLs and end users are already reporting some OTC derivatives transactions to overseas trade repositories. Consequently, it would be expected that reporting entities would have the ability to select from appropriately licensed trade repositories, including trade repositories located in offshore jurisdictions subject to certain conditions. These would include regulators’ ongoing access to data, and the data protections available to participants.
6.3. Clearing Arrangements

The Council has been of the view for some time that central clearing is a more robust arrangement for OTC derivatives markets than bilateral arrangements, and that therefore a transition to CCPs where possible should be encouraged. However, the Council also acknowledges that many OTC derivatives cannot (currently at least) be centrally cleared, and that central clearing may not be appropriate in all situations.

In the first instance, rather than regulators implementing a mandatory regime to force the move of transactions to CCPs, the Council would prefer to rely on economic factors to drive this transition. Australian regulators will be applying internationally agreed standards for prudential capital charges, which are being increased for banks’ exposures that relate to non-centrally cleared contracts. International regulators are also working on proposals to strengthen risk management practices for non-centrally cleared OTC derivatives by introducing global minimum standards on margin requirements. As well as reinforcing the incentive to centrally clear, this would also serve to mitigate the risks involved in bilateral clearing of OTC derivatives. Australian regulators would intend to adopt these standards as appropriate once they are finalised – the agencies will consult on this as these proposals become more concrete.

The Council expects that these measures will prove effective in sending a price signal to all market participants that increases the relative cost of non-centrally cleared transactions over that of central clearing. In the short run this should be particularly effective in encouraging larger market participants to move to central clearing arrangements, which should in turn make a significant contribution to systemic risk reduction. Given the network externalities of clearing arrangements, once a sufficient number of large market participants begin centrally clearing it is likely that other market participants will also choose to centrally clear. A sustained differential in the relative prices of centrally and non-centrally cleared arrangements should also provide an incentive for market participants to continue searching for central clearing solutions for products where this is not currently available.

While the Council is looking to encourage central clearing in general, it accepts that it is appropriate for some market participants to retain bilateral clearing arrangements. For instance, smaller participants may find that managing the liquidity risks associated with central clearing (e.g. in relation to the posting of variation margin) outweighs the counterparty risk management benefits of central clearing. For other participants, the need to retain bilateral arrangements for transactions that are not currently eligible for central clearing may mean that central clearing of related transactions could in fact reduce netting opportunities. Over time, though, this preference for bilateral arrangements should become weaker as a result of the changed relative price signals noted above. The international standards currently being developed around minimum margin requirements for non-centrally cleared transactions will be implemented in Australia as appropriate. This should help mitigate some of the risks that would remain if these transactions remained outside of CCPs.

A transition to greater central clearing of OTC derivatives is a significant change to market practices and organisation. For example, it will require a host of changes to legal and operational arrangements, and it will be likely to result in changes to many market participants’ balance sheets since larger amounts of collateral will be required to be posted and received. The highly cross-border nature of the OTC derivatives market makes this adaptation an even more complex process. Allowing time for the work-through of changed price signals will permit the financial system to reconfigure itself in an organic way, with scope for regulatory guidance or intervention as necessary.
However, the magnitude of the changes necessary may result in some participants making the transition at a slower-than-desirable pace. A significant difference in the pace of change among market participants, particularly larger intermediaries, could increase coordination problems and result in a transition to central clearing that was less orderly than desirable. It is also important that the take-up of central clearing occurs on a timeline that is satisfactory to the Government and regulators. To that end, it is appropriate that there be a capacity to mandate central clearing if necessary.

The Council does not propose that exemptions for any particular class of derivatives or participants be embedded in legislation. Rather, any decision to introduce a mandatory obligation for a particular class of derivatives would be accompanied by thorough consultation, with wide scope to make exemptions as appropriate. The Council considers it important that a high degree of flexibility be adopted in developing mandatory obligations, to enable Australia to develop a regime which is responsive to ongoing developments in clearing arrangements and in international regulation. A flexible approach would also allow regulators maximum scope to tailor any mandatory requirements to the particulars of a given market. There would be benefit in having scope to implement both ‘bottom-up’ and ‘top-down’ approaches, such as those adopted in the EU and US. A mandatory obligation could be imposed that required central clearing of a prescribed class of products (even in the absence of a CCP licensed in Australia as being able to offer this service). As and when such a CCP did become licensed, it would then be mandatory to clear through this entity. If no CCP emerged through a ‘bottom-up’ process, regulators could take a ‘top-down’ approach and call for expressions of interest from CCPs to offer such a service.

It would be the intention of Australian regulators that local clearing obligations be consistent, as appropriate, with international requirements. While the Council is looking to provide as much flexibility as possible to entities to establish central clearing arrangements, it is the intention of the Council that the Australian regime has an equivalent effect to that of offshore regimes. Depending on how quickly the domestic market moves towards central clearing of its own accord, regulators might look to implement a mandatory clearing regime that applied to the largest institutions in Australia within a short time horizon, since it is here that central clearing will have the greatest impact on systemic risk reduction.

If a mandatory clearing obligation were to be imposed, regulators would need to be conscious of the effect this might have on the relationships between dealers, clearing participants, end users and CCPs. Although the ultimate aim is for more transactions to be centrally cleared, ideally this transition would take place with maximum choice available to participants on issues such as the commercial terms of agreements, the choice of counterparties, and operational changes that might be needed. The Council would prefer that central clearing arrangements evolve in response to the commercial considerations of market participants and infrastructure providers.

An important question raised in the Council’s June 2011 discussion paper was whether central clearing of markets systemically important within Australia should be cleared by a CCP located within Australia. The Council has come to the view that this need not be the case, based on current information and expectations. Domestic and international regulatory developments discussed elsewhere in this paper have increased agencies’ comfort around the prospect of increased clearing by offshore CCPs, as discussed in section 7.3. As well, given the rapidly changing global landscape for central clearing, the Council would prefer not to unduly constrain market participants’ choices as to clearing arrangements.

The Council would also prefer to have come to concluded views on client clearing arrangements before moving to mandate any clearing requirements. A related question is what quality and quantity of collateral
might be needed to support a shift to central clearing (and margining for non-centrally cleared transactions) in Australia, and the consequences of this for the financial system more broadly. Depending on the degree of un-netting of positions (such as discussed in section 5.3), and the level of individual client account segregation, there could be a significant uplift in the amount of collateral required to be posted to clearing participants and CCPs. Australia is facing a challenging situation on this front, with restricted supply of, and high demand for, good quality local currency collateral.

6.4. Trade Execution

The third limb of the G-20 commitment to reform the OTC derivatives market is for transactions to take place, where appropriate, on exchanges or electronic trading platforms. It is important to have in place a legislative framework which would enable this commitment to be implemented expeditiously. Accordingly, it is intended that a legislative framework be introduced which will enable the development of detailed subsidiary legislation and the imposition of a mandatory trading requirement in respect of appropriate products.

However, at this stage the Council considers that it is premature to impose a mandatory trading obligation in respect of any products or participants. It is anticipated that transaction data from trade repositories will be required to effectively evaluate whether there are products for which it would be appropriate to mandate trading on an exchange or electronic platform. It is also anticipated that the move towards central clearing, which necessarily involves a degree of product standardisation, will organically give rise to an increase in electronic trading in products which are sufficiently liquid.

It is also important to recognise that there are likely to be costs associated with any mandatory requirement. These are likely to include costs to buy-side derivatives users and OTC derivatives market participants (such as trading technology and operational costs to connect with electronic trading platforms). It is also acknowledged that a decision to mandate trading in a product in which there is insufficient liquidity could result in an increase in bid/ask spreads, and even result in some users or market participants withdrawing from the market.

Given the size of the Australian OTC derivatives market and the presence of many international participants that are likely to be subject to trading requirements in other major jurisdictions, it is also expected that regulatory initiatives to mandate electronic trading in other jurisdictions will provide a significant impetus towards electronic trading by Australian participants in some products.
7. Licensing of Financial Market Infrastructure

7.1. Introduction

Australia’s existing regulatory regime for FMIs is flexible and, for the most part, already able to accommodate FMIs that can support OTC derivatives markets. An exception is trade repositories, which are not currently contemplated within the existing regulatory regime.

Given the international nature of OTC derivatives markets, it is likely that many offshore FMI providers will wish to operate their services within Australia. A particularly challenging regulatory issue here is central clearing in Australia by offshore-based CCPs, and questions around this issue formed a key part of the Council’s June 2011 discussion paper. Based on the results of this consultation and domestic and international regulatory developments, the Council does not propose that there should be any restriction on whether central clearing take place by domestic or offshore based CCPs. This would also be the approach to trade repositories and market operators.

7.2. Licensing of Trade Repositories

As an emergent type of financial market infrastructure, trade repositories are not currently contemplated as a class of entity within the Corporations Act. This is in contrast to the established licensing regime for other financial market infrastructures: Part 7.2 of the Act sets out the Australian Market Licence (AML) regime, and Part 7.3 sets out the Australian Clearing and Settlement Facility Licence (CSFL) regime. Both Parts 7.2 and 7.3 provide for domestic licences and alternative criteria for granting licences to overseas operators.

It is proposed that a licensing regime for trade repositories be added to Chapter 7 of the Act. The trade repository licence (TRL) regime would have a similar structure to Part 7.2 and Part 7.3, in that it would provide for domestic licences and alternative licensing criteria for overseas trade repository operators. The Council believes it is important that the Australian regulatory regime for trade repositories facilitates the offering of services by foreign trade repositories whose primary regulator is foreign. It is also important that the regime established for licensing and supervising any domestic trade repository meets international regulatory standards and expectations, not least to facilitate any Australian-based trade repository offering its services in foreign jurisdictions.

The Council proposes that the TRL regime would be established at a high level in the amended Act, with supplemental regulations and standards made for the purposes of the trade repository licensing legislation, as is the case for the AML and CSFL regimes. This approach should enable the licensing regime to remain responsive to regulatory developments, and to ensure the consistency of Australia’s regime with the regimes being developed overseas. In addition, it is not intended that the TRL regime prevent an existing CSFL or AML holder from also holding a TRL.
Should multiple trade repositories in a given asset class co-exist, this may lead to data fragmentation and reduce the overall effectiveness of trade repositories. To avoid these problems, while still accommodating the potential for competing trade repositories, regulators would propose setting certain data standards to facilitate information aggregation. This would be guided by international standards as appropriate.

It is likely that a domestic TRL will be asked to provide data to overseas regulators. It is proposed that a domestic TRL may share information with offshore regulators where there are appropriate information sharing and data access arrangements between Australian and offshore regulators, and that Australian regulators are assured of confidentiality protections for the data transmitted.

As is the case for AMLs and CSFLs, it is proposed that the TRL regime should provide alternative criteria for granting a licence for an overseas trade repository operator. In order for an overseas trade repository licence to be granted, the home regulatory regime, as it applies to the operation of the overseas trade repository in its home jurisdiction, must be sufficiently equivalent (in relation to the level of fairness and effectiveness of services it achieves, and promotion of financial stability) to the Australian regulatory regime for comparable domestic trade repositories.

In granting a license to an overseas trade repository, Australian regulators will recognise the home regulatory regime of the trade repository and its primary oversight by its home authorities. A necessary pre-requisite would be an assurance by the applicant of the confidentiality protections for submitted Australian data. Adequate cooperation arrangements between Australian regulators and the overseas trade repository applicant will need to be in place before an overseas trade repository licence could be granted. Australian regulators would put in place cooperative arrangements with the relevant home regulatory authorities prior to the granting of a licence. These arrangements would include appropriate information sharing and data access between Australian regulators and the trade repository’s home regulator.

7.3. Licensing of Central Counterparties

Given the systemic nature of CCPs, most jurisdictions already have strong regulatory regimes in place to govern these activities. In order to operate a CCP in Australia, an operator must have an Australian Clearing and Settlement Facility Licence, as set out under Part 7.3 of the Corporations Act, or receive an exemption from this requirement. The regulation of these facilities is jointly overseen by ASIC and the Reserve Bank, whose role is to consider the potential effects of clearing and settlement facilities on overall financial and payment system stability. \(^{18}\) The granting and revocation of a clearing and settlement licence is at the discretion of a minister of the Australian government. A clearing and settlement facility must satisfy certain business conduct, governance, risk control, and resourcing requirements. As noted in section 4.4.2, ASIC and the Reserve Bank are guided by international recommendations set out by CPSS and IOSCO in undertaking the assessment and oversight of these facilities.

The characteristics of CCPs discussed in sections 2.3 and 5.4 mean that there are very strong economies of scale and scope in central clearing. Accordingly, it is likely that, absent regulatory constraints, OTC derivatives central clearing may tend to be concentrated in a small number of CCPs. Given the global nature of markets for many products, it will likely be the case that many of the OTC derivatives traded in Australia could be cleared by CCPs located in offshore jurisdictions. The possibility of an offshore-based CCP offering clearing services

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in Australia is explicitly contemplated in the existing Australian regulatory regime. Overseas based CCPs can provide clearing services in Australia subject to their home regulatory regime being sufficiently equivalent to that of Australia, and appropriate information sharing arrangements being in place between Australian regulators, offshore regulators and CCPs.

One of the objectives of the Council’s June 2011 discussion paper was to better understand the implications of a greater use of offshore CCPs by Australian participants. In particular, the Council would wish to ensure that clearing arrangements are sufficient for Australian interests to be protected in the event of a serious disruption to an offshore CCP. A number of regulatory developments over the past year have increased the Council’s comfort in this. In the first instance, the interests of smaller jurisdictions such as Australia are being given weight through the work of the FSB in designing safeguards around a global CCP regime. The FSB’s work around resolution regimes should also provide increased protections and certainty for users of CCPs.

Domestic regulatory developments have also increased regulators’ comfort around offshore CCPs. To ensure that the regulatory regime for FMIs in Australia remained fit-for-purpose, in October 2011 the Council released a consultation paper on this issue.19 This paper contained a number of proposals, spanning enhancements to directions powers and sanctions, step-in powers, ‘fit and proper’ standards for directors and officers, listing rules and securities exchange compensation arrangements. Perhaps most relevant in the context of OTC derivatives regulation is a proposed amendment to legislation to provide explicitly for ‘location’ requirements to be imposed on an FMI, where appropriate, to mitigate the risk of disruption to markets served by that FMI and the Australian financial system more broadly. Since a potential outcome in OTC derivatives markets is for participants in the Australian market to clear via a CCP based overseas, this proposed reform is particularly important in the context of regulatory policy on the clearing of OTC derivatives in Australia.

There is a balance to be struck between the efficiency costs of imposing location requirements and the stability benefits for the Australian market. To facilitate a choice of central clearing arrangements being available to the Australian market, the Council would wish to accommodate offshore-based CCPs. However, domestic regulators would have a particularly keen interest in the activities of an offshore CCP clearing markets and products that are of particular systemic importance in Australia, with a view to:

- minimising potential disruption and loss to Australian financial institutions, financial markets and the real economy in the event of a clearing participant’s default or other financial stress to the CCP
- ensuring continuity of provision of FMI services to the most systemically important Australian financial markets
- ensuring that Australian regulators (and Australian participants) have effective oversight of the CCP and can exercise sufficient influence to ensure that it meets domestic and international standards for systemic risk management, provides its services in a fair and effective way, and offers due protections to Australian participants.

The intent of the proposals would be to give Australian regulators a capacity to impose geographical or legal situs requirements on aspects of an offshore CCP’s operations to ensure these outcomes. These might cover areas such as financial risk management arrangements, operational arrangements, and regulatory and legal frameworks as they applied to Australian participants’ activity. It would be expected that any such requirements would be tailored in a flexible, proportional and graduated way, and might conceivably change over time as

markets evolve. If adopted, the intended approach of regulators would be set out by guidance that was as detailed as possible, though it is unlikely that this would include hard triggers or thresholds. Ultimately, if an overseas facility became integral to the smooth functioning of the Australian financial system, it might be required to incorporate in Australia and obtain a domestic licence, thereby becoming subject to primary regulation by ASIC and the Reserve Bank.

Importantly, imposing location requirements does not imply overriding an overseas facility’s rules or unduly disrupting its risk management procedures. It also does not imply any intention to displace an overseas facility’s home regulator – any consideration of a location requirement would be undertaken with thorough consultation with the facility’s primary regulator. Rather, a core aim is to ensure protections for Australian market participants and to mitigate risks to the Australian financial system should offshore-based CCPs play a larger role in the domestic market.

7.4. Licensing of Trading Venues

Some jurisdictions have introduced changes to their existing regimes for licensing or recognising electronic platforms and exchanges, as part of their OTC derivatives regulatory reform agenda. However, it is not currently proposed that any changes be made to the Australian licensing regime for markets in Part 7.2 of the Corporations Act, since this provides an existing framework for regulating operators of electronic trading platforms. Part 7.2 explicitly contemplates the prospect of an offshore market operator being licensed in Australia, subject to that operator’s home regulatory regime being sufficiently equivalent to that of Australia. It is proposed that, if any obligation was in place for the purposes of trade execution, eligible trading venues would need to be either licensed under or exempt from Part 7.2 of the Corporations Act.

In other jurisdictions the relevant regulator has been empowered to impose rules around the market microstructure which should apply to mandatory trading (for example in relation to thresholds for pre-trade transparency expectations such as block trade thresholds and reporting delays). The Council recommends that similar powers be available in any mandatory regime established in Australia.

It is expected that foreign-based trading venues offering trading in OTC derivatives will invite Australian participants to trade through their facilities. In some cases these operators may have been registered or recognised as a new category of entity under foreign regulatory regimes. The Council considers that the existing framework for licensing and exempting markets in Part 7.2 of the Corporation Act can accommodate these foreign operators.
List of Consultation Parties

Abacus – Australian Mutuals
AMP Capital Investors
ANZ Banking Group
Arcadia Energy Trading
ASX Group
Australian Bankers’ Association
Australian Bureau of Statistics
Australian Centre for Financial Studies
Australian Financial Markets Association
Bank of America Merrill Lynch
Bank of Queensland
Barclays Bank
Citigroup
CLS Bank International
CME Group
Colonial First State Global Asset Management
Commonwealth Bank of Australia
Credit Suisse
CS Energy
CUSCAL
Mr Satyajit DAS
d-cyphaTrade
Deloitte Touche Tohmatsu
Deutsche Bank
 Depository Trust & Clearing Corporation
Ernst & Young
FEX/Mercari
Finance and Treasury Association
Global Foreign Exchange Division
Greater Building Society
Henry Davis York
Heritage Building Society
ING Bank

International Swaps and Derivatives Association
Investec Bank
J.P. Morgan
KPMG
LCH.Clearnet Group
Lloyds Banking Group
Macquarie Asset Management
Macquarie Bank
Mallesons Stephen Jaques
Markit
Members Equity Bank
Morgan Stanley
National Australia Bank
Northern Trust
Oakvale Capital
Omgeo
PIMCO
Qantas Staff Credit Union
QIC
QR National
Queensland Treasury Corporation
RBC Capital Markets
Reval.com
Royal Bank of Scotland
Mr Manmohan SINGH
Suncorp-Metway
Sungard
Treasury Corporation of Victoria
UBS
Vanguard Investments Australia
Victoria Teachers Credit Union
Westpac Banking Corporation
Yieldbroker