**Regulation Impact Statement Executive Summary**

**Margining and risk mitigation for non‑centrally cleared derivatives**

(OBPR ID: 2016/20420)

1. This Regulation Impact Statement (RIS) has been prepared by the Australian Prudential Regulation Authority (APRA) to inform APRA’s proposals on implementing the internationally agreed reforms for margining and risk mitigation for non-centrally cleared derivative transactions in the Australian financial system. The G20 committed to a series of regulations recommended by the Basel Committee on Banking Supervision (BCBS) and International Organisation of Securities Commissions (IOSCO) in order to reform risk management practices in the global over-the-counter (OTC) derivatives market.
2. The key problem assessed by APRA is how to apply the requirements of the internationally agreed framework to the Australian market. APRA’s implementation has sought to capture the benefits of reduced risk while limiting costs where possible. APRA considers it appropriate to mitigate costs for small and less-sophisticated entities that could be unduly burdened by the requirements. Therefore, APRA has made reasonable adjustments to the international framework that maintain consistency while appropriately considering Australian-specific market conditions.
3. For implementation, APRA has considered two options for the margin requirements and a further two options for the risk mitigation standards. The option to maintain the status quo is not considered viable given the commitment of reforms by all the G20 governments, the high costs to Australian financial institutions of complying with the requirements of multiple foreign jurisdictions that would otherwise apply, as well as the risk to market fragmentation and reduced access to global markets in the absence of requirements.
4. APRA recommends margin option 2, which implements the margin requirements in a manner consistent with the internationally agreed framework, while adding an exemption for small market participants that would be unduly burdened by the costs of implementation. This is estimated to lead to a regulatory cost savings of AUD 25 million per year, once fully implemented, over the adoption of requirements exactly as per the BCBS-IOSCO framework. APRA also recommends risk mitigation option 1, which is implementing requirements for only the core risk mitigation standards recommended by IOSCO. By implementing concurrently with margining, there is estimated to be no further regulatory cost of compliance.

| Average Annual Regulatory Costs of Recommended Options (from Business as usual)  |
| --- |
| Total change in costs by sector ($ millions) | **Business** | **Community organisations** | **Individuals** | **Total**  |
| Margin option 2 | $-24.6M | $0M | $0M | **$-24.6M** |
| Risk mitigation option 1 | $0M | $0M | $0M | **$0M** |

1. APRA conducted a public consultation on its proposed requirements and received 22 submissions in response from a variety of stakeholders. APRA also engaged informally with a variety of stakeholders, including individual institutions from various industries, industry associations, and both local and foreign regulatory agencies and central banks.
2. This final stage regulation impact statement builds on the first pass statement and stakeholder feedback received during public consultation on the proposed requirements.



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## Introduction

1. This Regulation Impact Statement (RIS) has been prepared by the Australian Prudential Regulation Authority (APRA) to inform APRA’s proposals on implementing the internationally agreed reforms for margining and risk mitigation for non-centrally cleared derivative transactions in the Australian financial system.[[1]](#footnote-1) Non-centrally cleared derivatives are transactions undertaken on a bilateral basis between two counterparties. These differ from centrally-cleared derivatives, which are transacted through specialised entities known as central counterparties.
2. These proposals address APRA’s incorporation of international margin requirements and additional risk mitigation techniques for non-centrally cleared derivatives into its prudential framework for regulated financial institutions in Australia.[[2]](#footnote-2) APRA also proposes to make changes to its reporting framework to require the reporting of certain information relating to derivatives by regulated financial institutions. At each major decision point in the development of these proposals, including the policy options for consultation, decision-makers were informed by earlier drafts of, or issues raised in, this RIS.
3. APRA has prepared this RIS in accordance with the Australian Government Guide to Regulation[[3]](#footnote-3) and based on guidance from the Office of Best Practice Regulation (OBPR) as the proposals are expected to have a measurable but contained impact on financial institutions that transact non-centrally cleared derivatives. A RIS was prepared at an early stage of policy development albeit not formally submitted to the OBPR for an early assessment. The issues canvassed in this RIS were considered by APRA at each major decision point in the development and finalisation of the proposals.

## Background

1. Poor risk management practices in derivatives trading contributed to, and exacerbated, the global financial crisis and prompted the Group of Twenty (G20) nations to commit to a series of reforms. One component of these reforms was the 2011 commitment to require market participants to exchange margin (collateral) for non-centrally cleared derivatives.[[4]](#footnote-4)
2. Two related packages of measures were developed at the G20’s request:
* *Margin requirements for non-centrally cleared derivatives*,[[5]](#footnote-5) which was developed by the two international standard-setting bodies, the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO) (‘the BCBS-IOSCO framework’); and
* *Risk Mitigation Standards for Non-centrally Cleared OTC Derivatives*,[[6]](#footnote-6) developed by IOSCO (‘the IOSCO risk mitigation standards’).
1. This RIS addresses APRA’s proposal to incorporate these internationally agreed measures into its prudential framework.
2. The proposals addressed in this RIS complement recent legislative reforms in Australia made by the *Financial System Legislation Amendment (Resilience and Collateral Protection) Bill 2016* (the Amendment Act). These reforms removed impediments to entities subject to Australian law complying with margining requirements when transacting in non-centrally cleared derivatives. For further detail and background, see the Department of the Treasury’s RIS, *Removal of impediments to margining* (May 2016).[[7]](#footnote-7) Second reading speeches in relation to the Amendment Act acknowledged the importance of these reforms in allowing the continued participation of Australian institutions in international derivatives markets as well as in complementing and supporting requirements to be set by APRA in accordance with the international framework.[[8]](#footnote-8)

###### The BCBS-IOSCO framework

1. Under this framework, all financial firms and systemically important non-financial entities that engage in non-centrally cleared derivatives are to be required to exchange two types of margin to limit the exposure of the institution to the risk that the counterparty to the transaction may default:
* **variation margin**, which is collateral paid or collected to reflect the current mark‑to-market exposure resulting from changes in the market value of a given non‑centrally cleared derivative transaction. All financial institutions and systemically important non-financial institutions are to exchange variation margin; and
* **initial margin**, which protects counterparties against the potential future exposure that may arise from future changes in the mark-to-market value of a non-centrally cleared derivative. The amount of initial margin is determined by assuming a minimum period of time that would be required for an institution to close-out and replace the transactions following a counterparty default. All financial institutions and systemically important non-financial institutions are to exchange initial margin where both parties to the transaction have consolidated group-level non-centrally cleared derivatives activity (measured by gross notional outstanding) exceeding EUR 8 billion (approximately AUD 12 billion).

######  The IOSCO risk mitigation standards

1. To complement the BCBS-IOSCO framework, IOSCO developed six other risk mitigation standards relating to trading relationship documentation, trade confirmation, valuation processes, portfolio reconciliation, portfolio compression and dispute resolution.

## What is the problem?

1. Non-centrally cleared derivatives are used by a wide range of market participants to hedge numerous types of financial and other risks, as well as for speculative purposes. The global financial crisis highlighted structural deficiencies in the non-centrally cleared derivatives market and the related risks these markets posed for wider financial markets and the real economy.
2. The non-centrally cleared derivatives market is one of the largest global financial markets. A recent Bank for International Settlements (BIS) report on OTC derivative statistics noted the total size of OTC derivative contracts[[9]](#footnote-9) outstanding globally at USD 493 trillion.[[10]](#footnote-10)
3. The Australian non-centrally cleared derivatives market is dominated by large banks, including the major Australian banks and the local operations of global financial institutions. These large market participants are supportive of implementation of margin requirements in Australia. The International Swaps and Derivatives Association (ISDA), which represents OTC derivatives market participants, stated in a May 2016 letter[[11]](#footnote-11) to APRA that ‘ISDA and its members strongly support the goals of strengthening resiliency in the non-centrally cleared derivatives market by establishing margin requirements’ and ‘ … the APRA proposals represent an important step forward for establishing a detailed set of requirements for the collection and protection of margin in the OTC derivatives market in Australia …’.

##### Problem definition – insufficient collateral and poor risk management practices

1. During the global financial crisis, insufficient collateral was exchanged in non-centrally cleared derivative transactions, which meant that, in the event of a counterparty default, not enough collateral was available to the surviving counterparty to offset its loss. This meant that the surviving counterparty had to rely on its capital to absorb losses due to counterparty default in a ‘survivor pays’ model that allowed significant contagion effects to spread throughout the financial system. This call on bank capital at a time when capital was needed to absorb other losses exacerbated losses. The BCBS-IOSCO framework is intended to ensure the availability of collateral to protect against the risk of counterparty default.
2. Further, deficiencies in risk management practices resulted in a lack of legal certainty in relation to the terms of non-centrally cleared derivatives, a lack of transparency in bilateral positions and the ongoing escalation, rather than resolution, of disputes. Given the systemic importance and interconnectedness of the financial institutions that participate in the non-centrally cleared derivative market, these issues contributed to instability in financial markets and spill-over effects onto the real economy. The IOCSO risk mitigation standards are intended to address these deficiencies.

##### Problem definition – consistency of global rules

1. Internationally, other jurisdictions such as the European Union and the United States are implementing the margining requirements. Many global financial institutions operating in Australia will be subject to their home regulators’ margin requirements. Some of the major Australian banks will also become directly subject to foreign regulation.[[12]](#footnote-12) Further, Australian financial institutions may also be subject to foreign requirements indirectly when entering into a transaction with an institution subject to foreign margin requirements.
2. Complying with the regulatory framework of another jurisdiction imposes significant legal and compliance costs. Costs are then multiplied where these regulatory frameworks are inconsistent, imposing duplicative or even conflicting requirements.
3. Due to the global nature of the OTC derivatives market, internationally regulators are working to address this complexity through the use of a concept termed ‘substituted compliance’. Substituted compliance allows a national regulator to permit an institution to comply with another jurisdiction’s requirements in lieu of applying local requirements. Substituted compliance is granted by one jurisdiction to another where an assessment has taken place and the regulator finds a foreign jurisdiction’s requirements to be broadly equivalent.

##### Problem definition – implementation of requirements in the Australian market

1. The Council of Financial Regulators (COFR), the non-statutory co-ordinating body for Australia’s main financial regulatory agencies, APRA, the Australian Securities and Investments Commission (ASIC), the Reserve Bank of Australia (RBA) and Treasury, considers that the inconsistent and inadequate application of risk management practices for non-centrally cleared derivatives that existed globally was also present in Australia. As Australia’s large financial institutions are active in international derivative markets, these institutions are in a position to contribute to global financial instability, but also importantly, would be subject to the impact of any global financial instability, contagion effects and market illiquidity as a result of shocks to the global financial system.
2. The Australian derivatives market comprises approximately 2% of the global market. Based on recent estimates of the global OTC derivatives market, the total size of derivative transactions in Australia is roughly AUD 12 trillion in size. Regulatory requirements on central clearing of certain transactions, in place both in Australia and in foreign jurisdictions, have shaped the structure of the market. Overall, the OTC derivatives market in Australia continues to be an active and growing financial market. Changing market practices as well as regulations adopted in foreign jurisdictions will continue to impact the market in Australia, both directly and indirectly. However, in the absence of action by APRA, such changes would increase market fragmentation and decrease transparency and access for Australian participants that in the global OTC derivatives market.
3. Given the non-centrally cleared derivatives market is an international, highly integrated market – and given the potential for unintended consequences such as market distortion or fragmentation as a result of variations in local application of the internationally agreed framework – considerations of international harmonisation are of greater importance in this area relative to other areas of prudential regulation. An internationally harmonised set of requirements will minimise opportunities for regulatory arbitrage and ensure continued access of Australian financial institutions to the global OTC derivatives market.
4. The key problem assessed by APRA is the best way to apply the requirements of the internationally agreed framework and maximise their benefits, while appropriately taking account of the local context. APRA’s implementation has sought to be internationally consistent and to capture the benefits of reduced systemic and entity-level risk, while limiting costs to the local industry where possible. APRA considers it appropriate to mitigate these costs particularly for small and less-sophisticated entities that could be unduly burdened by the new requirements without commensurate benefits to the market or financial safety.

## Why is government action needed?

1. Implementation of the margin requirements through government action is the clear expectation of G20 Leaders, including Australia’s Prime Minister. This expectation is also reflected in the language used by the two standard-setting bodies when developing the margin requirements. In May 2016, Parliament demonstrated bipartisan support for implementation of the margin requirements in passing the Amendment Act, which removed legislative impediments to Australian institutions complying with the internationally agreed margining framework.
2. Implementation through government regulation is a *de facto* requirement for substituted compliance recognition. Industry has consistently requested that implementation of the margin requirements in Australia be undertaken through government regulation to avoid the potential need to comply with multiple sets of foreign rules when transacting with foreign counterparties. In the absence of a recognised framework that implements the margin requirements, investors would likely have reduced confidence in Australian institutions and may choose to transact with parties from jurisdictions that have these in place.
3. Implementation by APRA will allow for the adoption of internationally consistent regulation while allowing local modifications that improve the cost-benefit trade-off. Local modifications focus on altering the requirements for small and less sophisticated entities that would be unduly burdened by implementation costs while bringing little benefit to systemic and entity-level risk reduction.
4. Regulation would also serve to correct asymmetries of information: without local requirements, other market participants and stakeholders will not have ready access to a clear, transparent guide to the requirements to which an institution must adhere when participating in a non-centrally cleared transaction. Obtaining this information for each individual participant in the Australian OTC derivative market would be a costly undertaking and those participants with more information would have a competitive advantage.
5. Implementing the internationally agreed reforms would also help address the externalities in the OTC derivative markets. In the global financial crisis, market participants were not required to internalise the risks of their OTC derivative transactions, which led to a situation where, in the case of a default, losses were borne by the surviving party. The exchange of margin serves to improve incentives by ensuring market participants internalise more of the cost of their risk-taking by imposing the cost of collateral and thereby reduces contagion risk to the broader financial system.
6. From the experience of the financial crisis, the G20 has demonstrated that the market will not correct these deficiencies on its own. Instead, regulation, adopted globally in a harmonised manner, would be required to establish an appropriate degree of transparency and consistency in the OTC derivatives market. By appropriately requiring costs to be internalised, and OTC derivatives to be appropriately managed whether cleared through a central counterparty or transacted bilaterally, global regulation would be able to effectively reduce systemic risk and establish a consistent regulatory environment for market participants.

## What policy options are you considering?

###### **Maintain the status quo**

1. The option to maintain the status quo is not considered a viable option in this case. The developments during the global financial crisis highlighted the need for reforms on a global basis. These reforms have been agreed by governments of the G20 countries. Regulations have been adopted by other jurisdictions that will impact local market participants. Lack of action by APRA would result in high costs of compliance for Australian financial institutions that are impacted by foreign regulation but would not be able to benefit from substituted compliance. The resulting market fragmentation and reduced access to the global OTC derivatives market would bring a high cost to Australian financial institutions.
2. The Australian government has continued to openly support the adoption of such requirements as endorsed by COFR and by Parliament when it passed the Amendment Act. Both COFR and Parliament supported APRA as the agency responsible for implementing the margin requirements. As stated above, APRA-regulated institutions, and primarily large banks, are the largest participants in the Australian non-centrally cleared derivatives market. By applying the margin requirements where at least one participant in a given transaction is subject to APRA regulation, the framework can effectively capture the majority of the market. Thus while APRA’s regulatory oversight extends only to ADIs, insurers and RSE licenses, in practice any margin requirements imposed on those entities would also apply to other market participants when transacting with those institutions.
3. With respect to the BCBS-IOSCO framework for margin requirements, APRA considers there are two viable options to implementation through amendments to its prudential standards:
* *Margining Option 1 – Implement margin requirements for all APRA-regulated institutions*; and
* *Margining Option 2 – Implement margin requirements with an exemption for small market participants*.
1. With respect to the IOSCO risk mitigation standards, APRA is considering there are two viable options for its approach to implementation:
* *Risk mitigation option 1 – Implement the core risk mitigation standards established by IOSCO*; and
* *Risk mitigation option 2 – Implement the core risk mitigation standards and exercise the areas for national discretion to implement specific standards*.

## What is the likely net benefit of each option?

1. The net benefit for each policy option is considered in respect of APRA-regulated institutions, their beneficiaries, other non-centrally cleared derivative market participants, consumers, financial market participants and government. While the proposals have a direct impact on APRA‑regulated institutions, other stakeholders benefit from improvements in risk management practices in non-centrally cleared derivatives markets and can be indirectly impacted through changes in operations and risk management practices of APRA-regulated institutions. There are also broader financial stability benefits from reducing potential contagion and spill-over effects from the non-centrally cleared derivatives market.
2. APRA’s assessment of cost focuses on overall compliance costs to the Australian economy incurred as a result of the regulation. Indirect costs, including costs to non-APRA regulated counterparties indirectly affected by the requirements, costs passed on to customers of financial institutions, impacts on market pricing and changes to overall risk profiles are considered.

###### **Margin requirements**

##### *Option 1 – Implement margin requirements for all APRA-regulated institutions*

1. Under this option, APRA would apply margin requirements to all APRA-regulated institutions in their transactions with financial firms and systemically important non-financial entities in line with scope of the BCBS-IOSCO framework. These requirements would not apply to institutions that do not transact any non-centrally cleared derivatives. APRA would not apply any activity level-based exemptions from variation margin requirements but would implement the BCBS-IOSCO framework’s exemption from initial margin requirements for entities with less than EUR 8 billion group-level notional non-centrally cleared derivatives. APRA would also implement changes to reporting requirements in relation to non-centrally cleared derivatives and margining activity. Option 1 is the assumed base case scenario.

###### Costs

1. Overall compliance costs could be significant, as every APRA-regulated institution that engages in a non-centrally cleared derivative transaction would be required to adhere to the margin requirements. This would extend to the small entities that may only engage in a small number of transactions each year, but would be required to maintain the funding, operational and regulatory costs of an active margining process.
2. APRA anticipates that its implementation of margin requirements would subject APRA-regulated institutions to direct compliance costs, including:
* funding and liquidity costs associated with the requirement to post margin (collateral);
* collateral management costs due to managing the balance sheet and collateral received;
* clearing and settlement costs associated with settlement of collateral;
* calculation costs associated with determining aggregate month-end average notional amounts of non-centrally cleared derivatives activity necessary to determine covered entity status and calculating the required amount of margin at the required frequency;
* operational costs associated with managing margin call workflow, settlement, exceptions and dispute resolution processes;
* legal and documentation costs associated with amending, replacing or initiating documentation governing non-centrally cleared derivatives transactions in a manner consistent with the requirements;
* adjustment costs required for additional data monitoring and reporting required information to APRA; and
* education costs for ensuring requirements are understood across relevant parts of the organisation.
1. In August 2013, the BIS’s Macroeconomic Assessment Group on Derivatives (MAGD) released an assessment of economic cost estimates for the proposed reforms of the OTC derivatives markets.[[13]](#footnote-13) The MAGD study measured three categories of costs arising from reforms: (i) the cost of increased collateral; (ii) the cost of increased regulatory capital required by Basel III; and (iii) other direct costs of reform. The most significant cost is the cost of required additional collateral. The MAGD estimated this additional cost, reflecting both changes in central clearing mandates and margin requirements for non-centrally cleared derivatives, at EUR 6 billion for a base-case scenario.
2. Adopting the same point in time that informed the MAGD estimates, the Australian market comprised approximately 1.7 per cent of the global market in OTC derivatives based on notional principal outstanding. This would mean that Australia’s portion of the increased costs would be approximately EUR 102 million or AUD 153 million for a base-case scenario.
3. APRA estimates the total cost of compliance with the internationally agreed BCBS-IOSCO framework would be approximately AUD 153 million per year, once the requirements are fully-phased in in 2020. Aggregate compliance costs to the Australian economy will gradually increase over the period of 2016 to 2020 as more entities become subject to the margin requirements. Once fully phased-in, Option 1 would impose initial margin requirements on approximately 23 APRA-regulated groups and variation margin requirements on approximately 70 APRA-regulated groups.
4. The implementation cost associated with adopting the internationally agreed framework would total AUD 153 million per year, once fully phased-in. These costs are expected to both reduce profit margins for financial institutions transacting in non-centrally cleared derivatives and to increase costs for entities that engage in non-centrally cleared derivatives, such as for hedging purposes. Costs should not directly impact consumers or retail customers that do not transact in these types of products. Although shareholders overall may be impacted, this effect is expected to be immaterial relative to the overall profitability of a given institution.

###### Benefits

1. Requiring the exchange of margin for non-centrally cleared derivatives would achieve the objectives of:
* improved prudential safety and soundness of APRA-regulated institutions by reducing uncollateralised counterparty credit risk exposures;
* reducing systemic risk in the non-centrally cleared derivatives market and improving broader financial stability by reducing contagion risk; and
* implementing a margining framework that is internationally consistent and facilitates Australia’s continued efficient participation in global financial markets.
1. Under this option, the benefit would be the greatest possible reduction in systemic risk and entity-level counterparty credit risk. This would also ensure that each APRA-regulated institution that transacts a non-centrally cleared derivative would do so in a manner that is consistent with international best practice and optimal risk management practices.

###### Net benefit

1. APRA considers that the net benefit of this option is positive, despite the significant costs of compliance. While it is difficult to quantify the exact benefit of a reduction in systemic risk, the benefit of a more stable, resilient financial system is considered significant. An event of counterparty default in the derivatives market is the type of low probability, high impact event that can cripple a financial market, with spill over effects reaching the real economy, as seen during the global financial crisis.
2. Such a high impact event was experienced in the global financial crisis. The Federal Reserve Bank of Dallas estimated the total global cost of the financial crisis to be between USD 6 trillion to 14 trillion (AUD 8 to 19 trillion).[[14]](#footnote-14) Given Australian financial institutions had almost no holdings of the types of securities that severely disrupted global financial markets and led to the failure of other financial institutions, Australia experienced less disruption during the global financial crisis than a number of other markets. However, Australia was not immune to the crisis, with Australian households suffering a significant decline in equity prices that reduced overall household wealth by nearly 10% in 2009.[[15]](#footnote-15) In response to global market conditions, the Australian government issued two stimulus packages, a $10.4 billion package in October 2008[[16]](#footnote-16) and a $42 billion package in February 2009.[[17]](#footnote-17)
3. Further, although the cost savings due to avoiding a future financial crisis are difficult to estimate, in comparison to the cost of the global financial crisis and the size of the overall OTC derivatives market (USD 493 trillion notional outstanding), the cost of compliance is considered reasonable and manageable. The total cost of compliance for the Australian economy once the requirements are fully phased-in represents just 0.001 per cent of the AUD 12 trillion in outstanding OTC derivatives in Australia.

##### *Option 2 – Implement margin requirements with an exemption for small market participants*

1. Under this option, APRA would provide an exemption for small market participants so that the margin requirements only apply to APRA-regulated groups with non-centrally cleared derivatives activity above a qualifying level. For variation margin, APRA would replace the BCBS-IOSCO framework’s application of variation margin requirements to all transactions of all financial firms and systemically important non-financial entities irrespective of activity level, with a minimum qualifying level of activity. APRA considers that exclusion based on level of activity in non-centrally cleared derivatives would most accurately gauge which groups contribute the most to systemic risk and would benefit from central clearing, rather than exclusion based on other metrics such as industry type or asset size.
2. For initial margin, APRA would maintain the BCBS-IOSCO framework’s minimum qualifying level of EUR 8 billion notional non-centrally cleared derivatives activity.

###### Costs

1. An important consideration in relation to this option is the value at which APRA sets the non-zero variation margin qualifying level. APRA proposed an AUD 3 billion qualifying level for variation margin requirements in its public consultation. This qualifying level means that only groups that have more than AUD 3 billion in total notional outstanding in non-centrally cleared derivatives are subject to variation margin requirements.
2. The value of this qualifying level was based on internal assessments of market participants. Due to the high level of concentration in the market, those institutions with the largest portfolios consist of a significant majority of the overall market. In 2012, the RBA estimated that the six largest banks’ reporting data constituted about 70 per cent of total notional value outstanding in the Australian market.[[18]](#footnote-18) The AUD 3 billion qualifying level is expected to exclude counterparties with immaterial levels of non-centrally cleared derivative activity and therefore minimise compliance costs on small, low activity entities whose inclusion would result in minimal additional systemic risk reduction. APRA sought industry feedback on the appropriate variation margin qualifying level via its public consultation.
3. APRA’s assessment of ADIs showed a small number of large market participants exceed the AUD 3 billion minimum qualifying level by a substantial degree, while the smaller and less sophisticated entities were generally well under this cut-off point. The minimum qualifying level will not be indexed, but may be readjusted over time for appropriateness. As the minimum qualifying level is based on the total notional value of transactions, this is not a measure that is directly sensitive to the impact of inflation.
4. APRA estimates that the introduction of a minimum qualifying level of AUD 3 billion in non-centrally cleared derivatives activity for the application of variation margin requirements would result in these requirements being applied to approximately 35 APRA-regulated groups, rather than approximately 70 APRA-regulated groups under Option 1.
5. The introduction of a minimum qualifying level does introduce a dividing point in the market, whereby participants that are just under the AUD 3 billion level would face a significant increase in costs for the single transaction that may put them over the requirement. Overall, APRA considers that this additional cost will be minimal, given that most APRA-regulated institutions are well under or over the AUD 3 billion mark. Further, as requirements are phased-in over time, these practices will increasingly become market practice and institutions just under the qualifying level may increasingly voluntarily comply with requirements to meet market expectations.
6. Under this option, APRA’s exemption of small or less active market participants from any margin requirements would result in lower compliance costs on an aggregated basis. Overall, based on APRA’s internal assessment, this would mean roughly half of market participants would be excluded from variation margin requirements, while still capturing the significant majority (over 80%) of transactions in the market. Based on the MAGD estimate of costs to the economy, APRA estimates this would reduce average annual compliance costs to the Australian economy by 20 per cent or approximately AUD 25 million per year. See Attachment A for further details. In addition, as the small, low activity entities are least able to bear the additional compliance cost without undue burden, this would also ensure that those larger entities able to more easily absorb the cost by spreading the relatively flat cost of administration across a larger portfolio of transactions.

###### Benefits

1. Under this option, the benefits would be almost identical to under Option 1 because the significant majority (over 80%) of transactions would still be subject to margin requirements. APRA considers this option to meet the objectives of improving prudential safety and financial stability and reducing systemic risk, as well as forming an internationally consistent margining framework that facilitates Australia’s continued efficient participation in global markets.
2. While the exclusion of small entities from variation margin requirements represents a deviation from the BCBS-IOSCO framework, APRA considers this an immaterial risk to substituted compliance and internationally consistent requirements given the minimal impact when assessed on an outcomes basis. APRA notes that other jurisdictions have also proposed *de minimis* qualifying levels that have been set at a level appropriate to their local financial market. The minimum qualifying level proposed by APRA is at a similar level to or lower than the qualifying levels proposed by other jurisdictions.
3. The benefit of a minimum qualifying level is most significant for small and less sophisticated institutions with minimal exposure to non-centrally cleared derivative transactions. Given the relatively high fixed cost of compliance, without the minimum qualifying level, such small institutions would face significantly higher per transaction costs, reducing their relatively competitiveness. By exempting such entities, small participants in the market are able to maintain greater competitiveness. While these entities would not automatically benefit from any arrangements for substituted compliance, there remains the option to voluntarily comply.

###### Net Benefit

1. APRA considers that Option 2 would result in a strongly positive net benefit. The benefits to this option are equivalent to those under Option 1, while average annual costs of compliance to the Australian economy would be reduced by approximately AUD 25 million per year compared to Option 1. Overall, APRA considers this option to have the greatest net benefit, due to the reduction in cost of compliance with negligible change in benefits achieved. APRA considers these costs to be reasonable and manageable and targeted to those entities that are able to bear the cost.
2. Table 1 below outlines the estimated number of APRA-regulated groups impacted by each of margining option.

Table 1: Approximate number of APRA-regulated groups impacted under each option

|  | **Margining Option 1**  | **MarginingOption 2** |
| --- | --- | --- |
| **Approximate number of groups to which APRA’s initial margin requirements apply** | 25 | 25 |
| **Approximate number of groups to which APRA’s variation margin requirements apply** | 70 | 35 |
| **Approximate number of groups to which APRA’s risk mitigation requirements apply** | 70 | 70 |

#### Risk mitigation requirements

##### *Option 1 – Implement core risk mitigation requirements established by IOSCO*

1. Under this option, APRA would implement the core risk mitigation requirements set out in the IOSCO standard. Implementation would occur in a manner that emphasises the core principles of the requirements necessary to support sound risk management practices.
2. IOSCO’s risk mitigation standards are intended to apply to all financial entities and systemically important non-financial entities. IOSCO establishes that the risk mitigation standards should, at a minimum, be applied to entities subject to margin requirements for non-centrally cleared derivatives. Under this option, APRA would apply its requirements to all APRA-regulated institutions that transact non-centrally cleared derivatives; however, some of the risk mitigation requirements could be applied with a scope and frequency that reflects the size, complexity and risk profile of an entity’s non-centrally cleared derivatives portfolio.
3. Compliance with the IOSCO risk mitigation requirements will require an APRA‑regulated institution to review its legal documentation governing non-centrally cleared transactions for appropriate content and clarity. An APRA-regulated institution will also need to assess its internal policies and procedures regarding record keeping of legal documentation governing non-centrally cleared derivatives, processes for valuing portfolios and agreeing movement of collateral, management of disputes over collateral amounts between counterparties, and reconciling or compressing large portfolios to reduce the number of unnecessary outstanding trades between two heavily active market participants.
4. APRA-regulated institutions have already implemented the risk mitigation requirements to varying degrees, or sometimes to a varying degree within a given institution. The risk mitigation requirements will most importantly apply a consistent minimum standard for business practices in this area that an APRA-regulated institution must apply consistently within its organisation and that will be applied consistently across institutions.

###### Costs

1. The core risk mitigation requirements in IOSCO’s framework largely reflect industry best practice and can be implemented to a large degree in conjunction with the margining requirements. APRA considers that implementing only the core requirements established by IOSCO would not result in significant additional costs in excess to those required to implement the margin requirements.
2. APRA anticipates that compliance costs faced may include:
* administrative costs associated with establishing and maintaining documentation;
* administrative costs associated with notifying senior management when material disputes occur, and notifying the Board where a dispute representing a material risk to the entity occurs;
* operational costs associated with updating or establishing and implementing internal policies and procedures to reflect requirements, where necessary;
* substantive compliance costs associated with undertaking portfolio reconciliation (reconciling all material terms and valuations of all non-centrally cleared derivatives transactions with counterparties), to the extent appropriate; and
* substantive compliance costs associated with undertaking portfolio compression (terminating some non-centrally cleared derivatives transactions and replacing these with other transactions with a lower notional value, without changing the market risk exposure), to the extent appropriate.
1. As this option would allow a degree of flexibility in relation to individual institutions’ practices and enable implementation in a manner consistent with an institution’s size, complexity and portfolio of non-centrally cleared derivatives, APRA expects the additional compliance costs associated with this option to be minimal.

###### Benefits

1. APRA considers that the key benefits associated with this option include:
* improving prudential safety and soundness by ensuring APRA-regulated institutions meet minimum standards in risk management practices for non-centrally cleared derivative transactions;
* meeting IOSCO’s recommended minimum standards to ensure legal certainty and facilitate timely resolution of disputes to ensure continued flow of margin between counterparties; and
* supporting an internationally consistent framework for risk mitigation requirements and, therefore, minimising costs and regulatory burden. Given the global nature of the non-centrally cleared derivatives market, there is scope for duplicative or clashing risk mitigation requirements to apply to particular entities or transactions, resulting in increased compliance costs. This option is likely to result in the implementation of Australian risk mitigation requirements that are equivalent to or less detailed than other jurisdictions’ requirements.
1. The benefits to consistent application of the risk mitigation requirements apply both to an individual trade and to overall systemic risk in the event of a counterparty default. An APRA-regulated institution is able to minimise losses due to operational or legal uncertainty by adopting the appropriately robust risk mitigation standards. In the event of a counterparty default, system risk and contagion is minimised by ensuring transparency and certainty with respect to transactions that must be closed out in a timely and efficient manner.

###### Net benefit

1. APRA considers that this option is will yield a strong positive net benefit, as the implementation of only the core standards established by IOSCO would achieve the benefits of improving risk management practices, satisfying Australia’s G20 commitments, and supporting an internationally consistent risk mitigation framework, while minimising implementation and compliance costs.

##### *Option 2 – Implement the core risk mitigation standards and exercise the areas for national discretion to implement additional standards*

1. IOSCO’s risk mitigation standards include explicit discretion for national authorities to:
* prescribe a universal form of documentation;
* specify exact deadlines for completion of trade confirmations;
* specify transactions that remain unconfirmed after a specified period be reported to the relevant authority;
* impose specific frequencies for the conduct of portfolio reconciliation;
* specify covered entities report to the relevant authority valuation disputes in excess of an amount determined by regulation or a pre-agreed threshold where that dispute is not resolved within a specified period of time;
* specify parameters (e.g. the threshold, outstanding period) for regulatory reporting of disputes; and
* adopt a phase-in approach, such as applying a shorter compliance timeline for certain types of entities.
1. Under this option, APRA would implement IOSCO’s risk mitigation standards, exercising national discretion to apply specific, quantified metrics and prescribed methods in the areas outlined in paragraph 75 above as binding requirements for APRA-regulated institutions.

###### Costs

1. The types of costs incurred to APRA-regulated institutions under this option are likely to be similar in nature to those outlined under Option 1. However, compliance costs are likely to be higher than under Option 1, as exercising national discretion to implement additional specific and prescriptive requirements would necessitate more significant changes from existing practices and would require implementation of operational requirements beyond those required for margining.
2. Under this option, all affected entities would be required to adhere to risk mitigation requirements with a specified scope and frequency, leading to higher ongoing administrative and operational costs. In many cases, these additional costs will result in minimal additional benefits, as in order for APRA to mandate an appropriate scope and frequency for the conduct of specific risk mitigation activities by entities with large and complex portfolios of non-centrally cleared derivatives, the significant number of entities with small ‘vanilla’ portfolios and infrequent activity in non-centrally cleared derivatives will be required to incur the higher costs of completing risk mitigation activities with the same scope and frequency.
3. If APRA exercised national discretion in its implementation of risk mitigation requirements, this would likely also result in higher compliance costs due to institutions being subject to multiple jurisdictions’ risk mitigation requirements, resulting in higher implementation and operational costs due to potentially overlapping and conflicting requirements. For example, if APRA were to mandate the use of a specific form of documentation, this requirement may conflict with another jurisdiction’s requirements to use specific, but different, documentation. This would result in an institution needing to maintain two sets of documents for two different regulatory regimes.
4. APRA has estimated the additional average annual costs to industry of Option 2, relative to Option 1, at AUD 4 million. This is primarily due to a higher one-time cost of implementation. See Attachment B for further details.

###### Benefits

1. As under Option 1, this option would ensure APRA-regulated institutions meet minimum standards in risk management practices for each non-centrally cleared derivatives transaction. This option is also likely to yield marginally greater risk reduction benefits than Option 1 as more requirements may in some instances ensure higher minimum standards.

###### Net benefit

1. APRA considers that this option will yield a slightly positive to neutral net benefit. APRA considers that this option may result in marginally greater benefits than Option 1. However, this marginal additional benefit would likely be offset by higher costs of compliance.
2. APRA also considers that exercising national discretion to set additional requirements would lead to prescribing a one-size-fits-all approach for areas such as the minimum size above which a dispute must be reported to APRA or the required frequency for portfolio reconciliation. Such an approach is unlikely to be appropriate in all instances and would likely result in higher costs, particularly for smaller institutions. Under the core risk mitigation requirements, APRA would be able to monitor, supervise and review the practices of individual institutions to ensure they are commensurate with the inherent risks of their activities.

## Consultation

1. The BCBS and IOSCO reforms were widely consulted on globally in 2012 and 2013. Several major Australian market participants put forward submissions at that time.
2. Given the importance of the global OTC derivatives market to Australian financial institutions and corporations, APRA has undertaken extensive consultation since mid-2015 on both a formal and informal basis. To date consultation has involved:
* bilateral discussions via supervisory activities;
* monthly participation in non-cleared derivatives margining liaison meetings organised by the Australian Financial Markets Association and the Financial Services Council;
* ad-hoc meetings with superannuation industry associations;
* COFR survey of OTC derivatives market participants in 2015;
* public consultation on a discussion paper and draft new prudential standard, *Prudential Standard CPS 226 Margining and risk mitigation for non-centrally cleared derivatives* (CPS 226), which outlined specific proposals in relation to APRA’s implementation of the internationally-agreed framework for margining and risk mitigation for non-centrally cleared derivatives; and
* meetings with representatives from a number of industry bodies and individual institutions during and following the public consultation period.
1. This consultation has assisted APRA to understand current market practice and the level of preparedness for compliance with margining and risk mitigation requirements.
2. In 2015, COFR published its assessment of the Australian OTC derivatives market in the *Report on the Australian OTC Derivatives Market – November 2015*.[[19]](#footnote-19) The assessment found that, in general, the larger ADIs in Australia had an awareness and understanding of the requirements introduced by BCBS-IOSCO and were preparing to comply. Some ADIs expected to adopt the requirements voluntarily before becoming directly subject to margin requirements under Australian rules. Voluntary early adoption was driven both by need to comply with foreign regulatory regimes and considerations of commercial competitiveness.
3. On 25 February 2016, APRA commenced formal consultation through the release of a discussion paper and a draft of CPS 226. This consultation sought feedback from any interested parties on all aspects of the proposed requirements. In particular, APRA requested views on its proposed exemption of smaller market participants from margin requirements.
4. As part of its public consultation, APRA also requested that respondents provide cost-benefit analysis information on compliance with the proposed changes or any other substantive costs associated with the proposed changes. No respondents provided any specific cost data. Some respondents emphasised that implementation costs would be largely driven by the need to meet foreign regulatory requirements and therefore the lowest cost would be achieved through globally harmonised requirements. Respondents also noted that margining will result in cost savings through lower capital requirements under the revised Basel framework for counterparty credit risk.[[20]](#footnote-20) One superannuation industry organisation indicated that additional costs due to the proposed requirements will be passed on to fund members. This information has been used by APRA to inform its assessment of the financial cost of a change in regulatory burden using the Regulatory Burden Measurement framework and to inform its final calculations of the net impact of the proposals.
5. APRA received 22 submissions in response to this consultation, including nine confidential submissions. The submissions were from a range of stakeholders such as industry groups, APRA-regulated institutions, and other derivatives market participants.
6. Response to APRA’s public consultation strongly supported the adoption of requirements consistent with the internationally agreed framework. Submissions emphasised the importance of substituted compliance in minimising implementation costs. Smaller entities strongly supported the proposed minimum qualifying level of AUD 3 billion for variation margin requirements. A number of submissions made comments on narrow, technical aspects of the requirements; where relevant, adjustments were made to the proposals. APRA’s response to submissions paper sets out its views on these comments.

## Recommended option

###### Margin requirements

1. Table 2 below provides a summary of the costs and benefits of each of the options for margin requirements against the key criteria discussed in this RIS.

Table 2: Summary of the net benefits of each option for margin requirements

|  |  |  |
| --- | --- | --- |
| **Margin requirements** | **Option 1: Implement for all APRA-regulated institutions** | **Option 2: Implement with an exemption for small market participants** |
| **Compliance costs** | Significant | Material |
| **Meets BCBS-IOSCO objectives of systemic risk reduction and central-clearing promotion** | Meets this criteria | Meets this criteria |
| **Improves prudential safety outcomes for APRA-regulated institutions** | Meets this criteria | Meets this criteria |
| **Establishes a broadly internationally consistent framework** | Meets this criteria | Meets this criteria |
| **Satisfies Australia’s G20 commitment** | Meets this criteria | Meets this criteria |
| **Overall** | **Positive net benefit** | **Strongly positive net benefit** |

1. APRA considers Option 2 to be the preferred option for margin requirements as this option is expected to yield the greatest positive net benefit. This option will achieve the BCBS-IOSCO objectives of reducing systemic risk and promoting central clearing. This option will improve prudential safety outcomes for APRA-regulated institutions, establish a broadly internationally consistent framework, and satisfy Australia’s G20 commitment to reform.
2. Through Option 2, APRA is able to implement the BCBS-IOSCO margin requirements and achieve a substantially similar outcome in terms of systemic risk reduction and benefit to prudential safety as under Option 1, with a reduction in average annual compliance costs of approximately AUD 25 million.

Regulatory burden estimate (RBE) table: Margining Option 2

| Average Annual Regulatory Costs (from Option 1) – Change in costs ($millions) |
| --- |
| Change in costs ($ million) | Business | Community organisations | Individuals | Total change in costs |
| Total, by sector | -$24.6M |  |  | -$24.6M |

###### Risk mitigation requirements

1. Table 3 below provides a summary of the costs and benefits of each option for risk mitigation requirements against the key criteria discussed in this RIS.

Table 3: Summary of the net benefits of each option for risk mitigation requirements

|  |  |  |
| --- | --- | --- |
| **Risk mitigation requirements** | **Option 1: Implement core risk mitigation requirements established by IOSCO**  | **Option 2: Implement the core risk mitigation standards and exercise the areas for national discretion to implement additional standards** |
| **Compliance costs** | Minimal | Moderate |
| **Improves prudential safety outcomes for APRA-regulated institutions** | Meets this criteria | Meets this criteria |
| **Meets IOSCO objectives, including promoting legal certainty** | Meets this criteria | Meets this criteria |
| **Establishes internationally consistent framework** | Meets this criteria | May or may not meet this criteria |
| **Satisfies Australia’s G20 commitment** | Meets this criteria | Meets this criteria |
| **Overall** | **Strong positive net benefit** | **Moderate positive net benefit** |

1. APRA considers Option 1 to be the preferred option for risk mitigation requirements as this option generates the greatest positive net benefit. By implementing the only the core risk mitigation requirements established by IOSCO, APRA’s proposals will improve prudential safety and soundness, meet the objectives of the internationally-agreed framework, establish internationally consistent requirements and satisfy Australia’s G20 commitment. Option 1 is able to achieve these benefits at significantly lower cost of compliance than Option 2, which also has the disadvantage of potentially resulting in requirements that clash with those of other jurisdictions.
2. Through Option 1, APRA is able to implement the IOSCO risk mitigation requirements with minimal additional costs on top of those required to implement the margin requirements.

Regulatory burden estimate (RBE) table: Risk Mitigation Option 1

| Average Annual Regulatory Costs (from Business as usual) – Change in costs ($millions) |
| --- |
| Change in costs ($ million) | Business | Community organisations | Individuals | Total change in costs |
| Total, by sector | $0M |  |  | $0M |

## Implementation and evaluation

1. APRA will give effect to the proposed margining and risk mitigation requirements for non-centrally cleared derivatives by making a new prudential standard, CPS 226. APRA will also make complementary changes to its reporting framework to require reporting of certain information by regulated institutions.
2. Draft CPS 226 proposed that the margin requirements would be subject to phase-in arrangements from September 2016 to September 2020 under a broadly similar timetable to the internationally-agreed BCBS-IOSCO schedule. Under the proposed timetable, the first Australian-headquartered APRA-regulated institutions would phase-in on 1 March 2017 for variation margin and on 1 September 2017 for initial margin. Given recently announced changes in the implementation schedules of other major markets and the preparedness of market participants, APRA is reconsidering the timetable for local implementation.
3. As delegated legislation, prudential standards impose enforceable obligations on affected APRA-regulated institutions. APRA monitors ongoing compliance with its prudential framework as part of its supervisory activities. APRA has a range of remedial powers available for non-compliance with a prudential standard, including issuing a direction requiring compliance, breach of which is a criminal offence. Other actions include imposing a condition on an APRA-regulated institution’s authority to carry on its business or increasing regulatory capital requirements.
4. Under APRA’s policy development process, reviews of new measures are scheduled for between two and three years from implementation. Such a review would consider whether the requirements continue to reflect good practice, remain consistent with international standards, and remain relevant and effective in facilitating sound risk management practices in non-centrally cleared derivatives. APRA will also take action within a shorter timeframe where there is a demonstrable need to amend a prudential requirement. As a legislative instrument, CPS 226 will also be subject to sunsetting requirements.
5. The COFR will continue to undertake periodic assessments of the Australian OTC derivatives market, including the regulation affecting that market. The COFR will assess the volume of transactions and level of risk associated with transactions captured by APRA’s margin requirements and foreign margin requirements, and consider the case for the creation of margin requirements for non-APRA regulated institutions in Australia.

**Attachment A – Compliance cost report – Margin requirements**

Cost per entity equals total cost per segment divided by total number of entities within the segment.

|  |  |
| --- | --- |
| **Proposal name** | Margin requirements for non-centrally cleared derivatives |
| **Reference number** | 20420 |

### Segments affected

* Business

### Option 1

|  |  |
| --- | --- |
| **Option name** | Margining option 1 |
| **Business affected** | 68 |

| Average Annual Regulatory Costs (from Business as usual) – Change in costs ($millions)  |
| --- |
|   | **Business** | **Community Organisations** | **Individuals** | **Total change in Cost**  |
| **Total by sector** | $0M |  |  | $0M |

### Option 2

|  |  |
| --- | --- |
| **Option name** | Margining option 2 |
| **Business affected** | 34 |

| Average Annual Regulatory Costs (from Option 1) – Change in costs ($millions)  |
| --- |
|   | **Business** | **Community Organisations** | **Individuals** | **Total change in Cost**  |
| **Total by sector** | -$24.6M |  |  | -$24.6M |

**Attachment B – Compliance cost report – Risk mitigation requirements**

Cost per entity equals total cost per segment divided by total number of entities within the segment.

|  |  |
| --- | --- |
| **Proposal name** | Risk mitigation requirements for non-centrally cleared derivatives |
| **Reference number** | 20420 |

### Segments affected

* Business

### Option 1

|  |  |
| --- | --- |
| **Option name** | Risk mitigation option 1 |
| **Business affected** | 68 |

| Average Annual Regulatory Costs (from Business as usual) – Change in costs ($millions)  |
| --- |
|   | **Business** | **Community Organisations** | **Individuals** | **Total change in Cost**  |
| **Total by sector** | $0M |  |  | $0M |

### Option 2

|  |  |
| --- | --- |
| **Option name** | Risk mitigation option 2 |
| **Business affected** | 68 |

| Average Annual Regulatory Costs (from Option 1) – Change in costs ($millions)  |
| --- |
|   | **Business** | **Community Organisations** | **Individuals** | **Total change in Cost**  |
| **Total by sector** | $4M |  |  | $4M |

1. A derivative is a contract that derives its value from the performance of an underlying asset such as a commodity, currency or security. The two parties to a given derivative contract are called counterparties. A counterparty to a derivative may enter into the transaction for the purpose of hedging risk (insuring against future price movements), speculating on future price movements, or accessing otherwise hard-to-trade assets or markets. Common types of derivatives include forwards, futures, options, and swaps. Less common types of derivatives include more complex structures or exotic underlying assets. The derivatives market is one of the three main global financial markets, along with the bond market and equities market. [↑](#footnote-ref-1)
2. APRA’s prudential framework comprises prudential standards and prudential practice guides (PPGs). APRA is empowered to issue legally binding prudential standards that set out specific requirements with which APRA-regulated institutions — authorised deposit-taking institutions (ADIs), general insurers and life companies (collectively, insurers) and registrable superannuation entity licensees (RSE licensees) — must comply. APRA also issues PPGs, which clarify APRA’s expectations with regard to prudential matters. PPGs frequently discuss legal requirements from legislation, regulations or APRA’s prudential standards, but do not themselves create enforceable requirements. [↑](#footnote-ref-2)
3. [*Australian Government Guide to Regulation*](http://cuttingredtape.gov.au/handbook/australian-government-guide-regulation), March 2014 [↑](#footnote-ref-3)
4. G20, *Cannes summit final declaration*, [www.g20civil.com/documents/Cannes\_Declaration\_4\_November\_2011.pdf](http://www.g20civil.com/documents/Cannes_Declaration_4_November_2011.pdf) Other components included requirements for certain types of derivatives to be executed on exchanges or electronic trading platforms, be cleared through central counterparties and reported to trade depositories. These measures are not relevant to this RIS. [↑](#footnote-ref-4)
5. <http://www.bis.org/bcbs/publ/d317.htm> [↑](#footnote-ref-5)
6. <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD469.pdf>

Over-the-counter (OTC) derivatives are bilateral contracts which derive their value from shifts in the value of entities in the underlying market. [↑](#footnote-ref-6)
7. http://ris.dpmc.gov.au/2016/05/31/removal-of-impediments-to-margining/ [↑](#footnote-ref-7)
8. Australian Parliamentary Debates, House of Representatives Hansard, 16 March 2016, page 3258; Australian Parliamentary Debates, Senate Hansard, 2 May 2016, pages 4023-4029; Australian Parliamentary Debates, Senate Hansard, 4 May 2016, pages 3472-3474. [↑](#footnote-ref-8)
9. OTC derivative contracts are generally not centrally cleared. [↑](#footnote-ref-9)
10. *OTC derivatives statistics at end-December 2015,* May 2016. <http://www.bis.org/publ/otc_hy1605.htm> [↑](#footnote-ref-10)
11. <http://www.apra.gov.au/CrossIndustry/Documents/ISDA-margining-submission.pdf> [↑](#footnote-ref-11)
12. For example, by the five big banks in Australia being registered as swap dealers in the US. [↑](#footnote-ref-12)
13. <http://www.bis.org/press/p130826.htm> [↑](#footnote-ref-13)
14. <http://dallasfed.org/assets/documents/research/staff/staff1301.pdf> [↑](#footnote-ref-14)
15. [http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/1301.0Chapter27092009%E2%80%9310](http://www.abs.gov.au/AUSSTATS/abs%40.nsf/Lookup/1301.0Chapter27092009%E2%80%9310) [↑](#footnote-ref-15)
16. <http://www.smh.com.au/business/rudd-unveils-104b-stimulus-plan-20081014-50a6.html> [↑](#footnote-ref-16)
17. <http://www.heraldsun.com.au/news/swan-splashes-cash-in-rescue-bid/story-e6frf7jo-1111118741834> [↑](#footnote-ref-17)
18. <http://www.rba.gov.au/publications/bulletin/2012/dec/5.html> [↑](#footnote-ref-18)
19. <http://www.cfr.gov.au/publications/cfr-publications/2015/report-on-the-australian-otc-derivatives-market-november/index.html> [↑](#footnote-ref-19)
20. See the Preliminary Assessment ‘Revisions to the capital framework for counterparty credit risk for ADIs’, APRA, 11 March 2016. [↑](#footnote-ref-20)