

Supplementary Submission to the Financial System Inquiry

August 2014

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Introduction

The Reserve Bank of Australia has prepared this Supplementary Submission in response to the *Financial System Inquiry Interim Report* (Interim Report, FSI 2014).

The Bank's initial submission outlined key developments in the Australian financial system in the 17-year period since the Wallis Inquiry, and raised some areas where the Committee might consider directing its attention (RBA 2014). This Supplementary Submission is narrower in scope, focusing on the issues raised in the Interim Report that directly relate to the responsibilities of the Reserve Bank for the efficiency and stability of the payments system and the stability of the financial system more broadly. The detailed analysis contained in the initial submission, though relevant to many of the issues raised in the Interim Report, is not repeated here.

The Bank supports many of the key themes set out in the FSI's Interim Report, including, in particular:

- the general support for the existing regulatory architecture
- the call for strong, independent and accountable regulators
- the broad support for a strong prudential framework, grounded in global standards and tailored appropriately to Australia's circumstances
- the focus on mitigating systemic risk and improving the resilience of the financial system
- the recognition that regulation is sometimes needed to ensure efficient outcomes, especially in payment systems
- the consideration of impediments to efficient provision of small business finance
- the focus on the cost and efficiency of the superannuation system
- the emphasis on the efficacy of consumer disclosure and financial advice, as well as improving consumer engagement.

The following are five points that the Bank considers are worth emphasising.

1. Reforms over the past decade or so have been effective in improving competition and efficiency in payment systems. The Bank's current approach to payment system regulation, as overseen by the Payments System Board, remains appropriate. However, there may be scope to clarify how purchased payment facilities are regulated.
2. The Council of Financial Regulators (CFR) has worked well and cooperatively under its existing informal arrangements and charter. If there is appetite to formalise arrangements and/or increase the responsibility of the CFR, care should be taken to ensure that the existing powers and independence of each member agency are not eroded, and that the emphasis on cooperation remains.
3. Any proposed new measures to enhance system stability should account for the work already underway – globally and domestically – to improve the resilience of the financial system. This is a

challenging area for policy development; hence, care should be taken in implementing new policies and consideration given to how these changes may interact with pre-existing policies.

4. Superannuation assets should be managed in the best interests of members. Measures to lower costs and fees, optimise liquidity management and limit leverage should be considered.
5. The supply of mortgage finance in Australia is ample. Therefore, any proposed policies that could further increase that supply should be subject to rigorous analysis of their costs, benefits to consumers and risks to financial stability.

The Bank supports the general principles for government intervention outlined in the Interim Report (FSI 2014, p 1-7, Table 1.1), though, as the Report notes, these can at times be conflicting. The challenge is to balance the competing objectives; for instance, to weigh the merits of a targeted response that minimises costs against the demands for competitive neutrality. This task is complicated when there are multiple proposals for reform, and when their interaction and cumulative effects are difficult to be precise about in advance.

The period following the financial crisis rightly saw an array of regulatory reforms agreed internationally. Implementation schedules were drawn out, to avoid hampering growth in economies where financial sectors were weaker. Thus some of these reforms will only be completed in the next few years. It will be important to monitor the effectiveness of these policies and to be prepared to adapt accordingly. While all of the general principles for government intervention will be important in this, the Bank – together with the Australian Prudential Regulatory Authority – has previously emphasised the importance of taking a system-wide approach in assessing the appropriateness of intervention and will continue to do so.

The remainder of this Supplementary Submission expands on the five points emphasised above, addressing some areas on which the Interim Report has sought views or further information. The common thread of many of these points is a consideration of the benefits to the economy from productive risk-taking against the significant costs of imprudent risk-taking.

1. The Payments System

1.1 Competition in the Retail Payments Market

The Bank concurs with the Interim Report's observation that regulation of credit card and debit card payment schemes is required for competition to lead to more efficient outcomes (FSI 2014, p xix). The following sections address areas where the Inquiry seeks further views in the area of retail payments.

1.1.1 Interchange regulation and competitive neutrality

The Bank strongly endorses the Interim Report's finding that interchange fee caps have improved the functioning of four-party payment schemes and the payments system (FSI 2014, p xix). The available evidence suggests that the effect of removing caps in Australia would be a significant increase in interchange fees and the cost of payments. The Bank notes that the Australian payment cards market has flourished in the period since its reforms were implemented and that a number of other jurisdictions have introduced similar regulation.

Accordingly, the Bank does not support the option of removing the caps on interchange fees.¹ Interchange fees may be appropriate in some circumstances, particularly in the establishment of new payment systems. However, the major card schemes are mature systems. In practice, with interchange fees being used to incentivise issuers to issue cards from a particular scheme and cardholders to use that card, the tendency has been for competition between mature card schemes to drive up interchange fees and costs to merchants, with adverse effects on the efficiency of the payments system.² This phenomenon has been most clearly observed in the United States credit card market, which has not been subject to any regulation (United States Government Accountability Office 2009). It has also occurred to an extent in the Australian credit card market over the past decade, with average interchange rates in the MasterCard and Visa systems tending to rise in between the three-year compliance resets under the current standard.³ This has reflected the introduction of new, significantly higher interchange categories by the schemes.

Based on the evidence, removing interchange fee caps in Australia would significantly increase interchange fees. It would most likely be associated with an increase in the generosity of rewards programs on credit cards and a significant expansion in the use of rewards programs for debit cards. This would have distributional effects given that the Bank's recent survey of consumers' use of

¹ The Bank noted in the context of the 2007/08 Review on the reform of Australia's payments system that it might consider stepping away from interchange regulation if it believed the industry was able to self-regulate effectively and that interchange fees would not increase in absence of regulation (RBA 2008, pp 15–23). However, the Payments System Board decided in 2009 that conditions had not been met for the removal of interchange regulation (RBA 2009).

² Interchange fees have had the perverse effect of driving greater use of more expensive payment methods. Evidence on the resource costs of different payment methods is provided in RBA and ACCC (2000), Schwartz *et al* (2008, pp 88–138) and the Bank's ongoing payments cost study, which will be released in late 2014.

³ The Standard requires that every three years or at the time of any reset, the weighted average of each scheme's interchange fees – based on applying the new interchange rates to the transactions of the most recent financial year for which data are available – is less than the benchmark.

payments shows individuals in the highest income quartile are six times more likely to have premium cards than low income individuals.

The removal of interchange fee caps and expansion of rewards programs would result in higher costs to merchants. For example, if average merchant service fees on card payments in Australia rose to the levels seen in the absence of interchange regulation in the United States, annual costs to merchants could increase by around \$4–4½ billion.⁴ Such an increase in costs would in turn lead to higher prices for all customers (including those who do not pay with cards) and/or higher surcharges on card payments.

The Interim Report also discusses ‘companion’ credit cards in the context of competitive neutrality. In a typical ‘three-party’ scheme (such as American Express or Diners Club), the scheme is both issuer and acquirer, with no role for interchange fees. However, three-party schemes – most notably American Express – have in recent years entered into ‘companion’ card arrangements with financial institutions to issue their cards. These arrangements have interchange-like fees that are paid from the scheme to the issuer, and – as with traditional four-party arrangements (such as MasterCard and Visa) – may involve other incentive or marketing payments to issuers.

While American Express has not been designated and directly regulated, it has voluntarily agreed to remove its no-surcharge and no-steering rules, which had prevented merchants from surcharging on American Express transactions and from encouraging consumers to use another means of payment. Merchant service fees have fallen by more in the American Express system (0.71 percentage points) than in the designated MasterCard and Visa systems (0.61 percentage points) in the period to June 2014 since the standards on credit card interchange fees were introduced in 2003.

The Bank has indicated in its initial submission to the Inquiry that it will be reviewing concerns that have been raised surrounding the issuance of American Express companion cards by financial institutions (RBA 2014, pp 214–215). The current legal framework provides scope for the Payments System Board (PSB) to address any issues arising from that review (and consequential consultation if required) without the need for changes to existing legislation.

In considering those issues, it is likely that the PSB would also examine the broader functioning of the current interchange cap system. Any changes to the regulatory framework would, of course, be subject to extensive consultation and pay due regard to the complexity of the issues. However, some relevant considerations might include the following.

- It is likely that any consultation would consider whether regulation of interchange fees should also include payments of similar economic substance. There are a range of payments (such as marketing fees, sign-on fees, incentive fees and rebates) from schemes to issuers that are used in both three- and four-party schemes. These other payments can potentially be used to circumvent interchange caps: for example, a scheme can increase fees charged to acquirers and use these funds to pay rebates to issuers, mimicking an interchange payment. Regulation of

⁴ The calculation takes the number and value of card transactions acquired in Australia and applies US merchant service fees. The US merchant service fee data are from The Nilson Report (2014) for the latest available year (2013) except in the case of debit cards, where pre-Durbin Amendment merchant service fees (2010) are assumed (The Nilson Report 2011). The implied average of merchant service fees for the US is 1.70 per cent, compared with the actual average for Australia of 0.72 per cent.

other incentive payments in debit card schemes has been implemented in the United States (Federal Reserve System 2011).⁵

- Any consultation on interchange fees might also consider the weighted-average nature of the cap. Over the past decade, the international four-party card schemes have tended to introduce higher interchange rate categories such as ‘super premium’ and ‘elite’ cards and have increased the complexity of their interchange fee schedules.⁶ The highest credit card interchange fee category is currently 2 per cent, nearly double the highest rate applying in November 2003. In comparison, the lowest interchange fee, which applies to transactions at ‘strategic’ merchants, is set at 0.20 per cent. As the PSB noted in its 2013 Annual Report, the cost of the higher interchange fee cards tends to fall on those merchants, typically smaller and medium-sized merchants, which do not benefit from preferential interchange status (RBA 2013a). One possibility would be for consultation on changes to interchange caps that would reduce the gaps between the high and low interchange categories. Alternatively, if some merchants were to continue to face large differences in interchange fees and merchant service fees on different cards from the same scheme, consideration could be given to the merits of measures to provide merchants with real-time information on the interchange category and/or merchant service fee applying to each transaction. There might also be a case for reviewing card scheme rules that require merchants to accept all credit cards or all debit cards from a scheme.
- It is also likely that any review of interchange fee caps would include a consultation on the costs and benefits of a change to the level of the existing caps. In its 2007/08 review of the reforms to card payment systems, the PSB considered reducing the weighted-average interchange fee caps from 50 basis points to 30 basis points per transaction for credit cards and from 12 cents to 5 cents for debit cards but did not do so (RBA 2008). The European Commission has recently proposed to set a hard cap (i.e. a cap applying to all transactions) on credit card interchange fees of 30 basis points applying for consumer-level credit cards and the lesser of 7 euro cents or 20 basis points for debit cards.

The Interim Report also seeks views on the desirability of capping merchant service fees. The Bank is not convinced of the merits of this option. While interchange fees set by card schemes are an important component, merchant service fees for card payments also reflect the resource costs of the financial institution providing payment services to the merchant. The latter may differ widely based on factors such as the value of the merchant’s turnover and the nature of the terminal and connection provided.

1.1.2 Surcharging

It is important that merchants can make decisions regarding acceptance and surcharging based on the costs and benefits of payment methods, given that different payment methods can have very

⁵ The Federal Reserve System’s Final Rule ‘Regulation II, Debit Card Interchange Fees and Routing’ (12 CFR Part 235) implementing the Durbin Amendment explicitly deals with the issue of non-interchange fee payments – see in particular section 235.6(b).

⁶ The tendency towards a larger number of interchange categories is not a purely Australian phenomenon and not specifically a product of our regulatory system. For example, in the United States, where there is no regulation of credit card interchange, the average number of credit card interchange fee categories for MasterCard and Visa increased from 4 in 1991 to 151 in 2009 (United States Government Accountability Office 2009, p 15). Currently, US interchange rates can be as high as 3.25 per cent (plus 10 cents) for some transactions.

different costs to merchants. For example, high interchange/high rewards cards can be very expensive for merchants that do not benefit from favourable strategic rates.

As outlined in the Bank's initial submission, surcharging reforms have improved price signals to cardholders and reduced the cost of payments to merchants. The Bank's assessment is that this has applied downward pressure on prices in a range of industries, to the benefit of all consumers. Accordingly, the Bank does not support the option of allowing established payment schemes to reintroduce 'no-surcharge' rules. The removal of the right to surcharge would most likely increase the cost of payments for merchants and thus the prices paid by consumers for goods and services. A number of other jurisdictions have followed the PSB's reforms and have also banned restrictive no-surcharging rules.

If a merchant wishes to surcharge for a particular payment method, the following principles are important.

- There must be at least one non-surcharged payment method available to most consumers. This/these will typically be the low-cost means of payment for that merchant, and the cost of accepting this payment method should be built into the overall price of the good or service.
- Any surcharge should be properly disclosed.

It seems reasonable to expect that market forces will usually prevent excessive surcharging. Most merchants are aware that surcharging affects the customer experience and so are likely to think seriously before putting excessive surcharges in place. However, as the Bank has noted in its submission, there are a few industries (such as the taxi and air travel industries) where card surcharges for at least some transactions appear to be excessive relative to costs.

The enforcement of rules against excessive surcharging presents challenges, not least because the cost of payments can vary widely across merchants depending on factors such as their size and industry. Most recent discussion of this issue has been in terms of card payments and the presumption has been that card schemes, which were in nearly all cases able to enforce their no-surcharge rules prior to 2003, will typically also be able to limit surcharges to the reasonable cost of card acceptance. However, any framework for enforcement should also be relevant to other means of payment where there is no scheme, for example to ensure that merchants do not surcharge excessively for cash, cheques or bank payments.

Enforcement activities are most appropriately focused on aspects of merchant behaviour that may limit the ability of market forces to prevent excessive surcharging. In particular, this includes ensuring that surcharges are prominently disclosed and that the non-surcharged payment method(s) is/are a genuine alternative for most customers. Indeed, the Australian Competition and Consumer Commission (ACCC), which has broad responsibility for consumer protection issues and appropriate expertise and enforcement powers, has recently initiated actions in these areas with respect to 'drip pricing' while the Australian Securities and Investments Commission (ASIC) has recently taken action on the disclosure of surcharges. The Bank supports the actions of the ACCC and ASIC and expects that a targeted approach could deal with most problems of excessive surcharging. The Bank also supports the actions of some state taxi regulators to deal with the issue of excessive surcharging in the taxi industry.

1.1.3 Payments processing

The Interim Report seeks views on whether acquirers should be required to give merchants more choice in the processing of their transactions.

This is particularly relevant in the case of dual-network debit cards – that is, cards with point-of-sale debit functionality from two payment networks. Some of the issues involved here were illustrated in a decision by Woolworths, a retailer with its own payments processing capacity. Between April 2010 and September 2012, Woolworths chose to route all debit transactions on dual-network cards through the domestic eftpos network rather than the networks of MasterCard and Visa, citing the higher cost of the latter networks (Woolworths Limited 2010). A number of other retailers have asked their financial institutions to route transactions via a preferred network but have been unable to obtain this capacity. The Australian Retailers Association has argued for merchant routing choice in its submission to the Inquiry.

The PSB has recently discussed the issue of merchant routing choice in the context of contactless cards. Following discussions between the Bank and the three debit schemes in 2012 and 2013, the schemes agreed they would not prevent merchants from exercising their own transaction routing priorities if cards are issued with two contactless debit applications on one card. Given that such cards have not yet been issued in Australia, it remains to be seen both whether merchants will ask their acquirers to provide routing choice and whether acquirers will offer this capacity.

One option that would be open to the PSB would be to consult on the costs and benefits of a standard that required acquirers to offer routing choice to merchants that requested it. The Bank considers its current regulatory powers are sufficient to implement this option, as a technical standard, if it was considered desirable. This was the course adopted in the United States in response to the Durbin Amendment to the Dodd-Frank Act. In the rules implemented by the Federal Reserve Board to meet the requirements of the legislation, where more than one network is available on a debit card, acquirers must route transactions through the network which the merchant has nominated as their preferred option among those networks available on the card.

The Interim Report also asked for views on whether information regarding interchange or merchant service fees should be available in real time as the transaction is occurring.

The Bank is aware of retailers that would like such information but that have been unable to obtain it. In general, greater transparency in the cost of payments to merchants is likely to place downward pressure on those costs. The availability of such information would enhance the ability of merchants to differentially surcharge based on the cost of the particular card to them or to refuse a card if the cost is deemed too high. The PSB could consult on the costs and benefits of a standard requiring such transparency. These costs and benefits could, however, change materially if the current large differences in interchange rates on different types of cards from the same network were to decline significantly.

1.2 Payment System Regulatory Architecture

1.2.1 Payment system regulatory perimeter

The Interim Report raises a number of questions surrounding the regulatory perimeter for retail payments. These can be separated into three distinct areas: payment systems; stored-value systems; and participants in payment systems. In each case, the current framework can be thought of as

applying a graduated approach to regulation. In the case of payment systems, the Bank considers that the current framework remains appropriate. In the case of stored-value systems and participants in payment systems, arrangements put in place following the Wallis Inquiry, and subsequently in conjunction with the Australian Prudential Regulatory Authority (APRA), sought to provide a graduated approach to regulation. The Bank's view is that further enhancements could be made in these latter two areas.

Payment systems

The Bank considers that the existing legislative structure and approach to retail payment system regulation remains appropriate. The current approach is already graduated and the Bank has the power to designate and regulate payment systems when it is in the public interest to do so.

Payments regulation in Australia reflects a philosophy which assumes that the industry can adequately self-regulate in the majority of cases. The Bank intervenes only where a public policy issue arises that the industry is unable to address. This is consistent with the intent of the *Payment Systems (Regulation) Act 1998* (the PSRA) as described by the explanatory memorandum:

The philosophy of the Bill ... is co-regulatory. Industry will continue to operate by self-regulation in so far as such regulation promotes an efficient, competitive and stable payments system. Where the RBA considers it in the public interest to intervene, the Bill empowers it to designate a payment system and develop access regimes and standards in close consultation with industry and other interested parties. (Parliament of the Commonwealth of Australia 1998, p 12)

The PSB has acted in a manner consistent with this. It directly regulates only five payment systems (ATMs, eftpos, MasterCard and Visa credit, and Visa Debit) and only in limited areas – that is, the level of interchange fees, restrictions on merchants, transparency and access to systems. This means that the Australian system, by design, leaves many payment systems, and many aspects of regulated payment systems, unregulated. This stands in contrast to the more interventionist approach of some other jurisdictions.

The Bank's view is that the current approach has served Australia well. It has supported competition and innovation by allowing new players, often with new business models, to establish without undue regulatory burden. This seems appropriate because small players are less likely to pose significant risk or to compromise the efficiency of the payments system overall. At the same time, the approach is flexible enough to allow the PSB to designate a payment system when relevant public interest concerns arise and to direct regulation to the specific issue of concern, even where that concern might not have been anticipated by legislators following the Wallis Inquiry.

However, the above approach means that similar payment systems may sometimes be regulated differently. An alternative approach might be to seek to apply similar regulation across *all* payment systems. As an example, MasterCard and Visa have been required by regulation to remove no-surcharge rules and American Express and Diners Club have done so voluntarily, but some other (typically much smaller) systems retain similar rules in some circumstances. The PSB could adopt a blanket approach and prohibit no-surcharge rules and other merchant restrictions across all payment systems, although under the current legislative framework it would need to have already designated every system that had such rules.

Overall, the Bank does not see a pressing need for change to the current legislation and regulatory framework. The Bank already has the ability to broaden the coverage of its regulation if considered necessary. While this approach is likely to involve separate designations and standards for individual

schemes, consistency and competitive neutrality can still be achieved. The current approach allows the PSB discretion to impose regulation at the point where an issue is likely to have a material effect on stability, competition or efficiency. This means that the benefits from broader regulation are likely to be modest.⁷

One qualification to the above assessment of the Bank's capacity to regulate is that, given ongoing innovation, it is not possible to know with confidence that all new payment systems will be capable of being regulated under the PSRA. For instance, the capacity to regulate payment systems embodied in digital currencies has not been tested.

Stored-value systems (or purchased payment facilities)

As noted in the Interim Report, the Bank supports the creation of a new framework, outside the supervisory framework of authorised deposit-taking institutions (ADIs), for the protection of the stored value in purchased payment facilities (PPFs). While it would likely require legislative change, the Bank sees this as the principal area where payments regulation could be simplified. The Bank also believes that the definition of PPFs should be clarified and that the transitional relief provided to some holders of stored value when the PSRA came into force should be revisited.

A PPF may perform the functions of a payment system in its own right, for instance where users each hold a member account with the PPF provider and can make payments to one another by transferring funds between those accounts. This is the model used for some online payment systems (e.g. PayPal) and the 'mobile money' systems used in some developing countries. A PPF might also hold stored value that is used through an unrelated payment system, for instance a prepaid card, issued by an entity that is not a financial institution, which allows holders to access funds and make payments through the eftpos network.

Like any other financial product, PPFs are subject to ASIC's conduct and disclosure regulation. In addition, if the PPF is widely available and redeemable in Australian currency, its provider is deemed to be carrying on banking business and must be authorised as an ADI by APRA. Under the PSRA, any other PPF must be authorised or exempted by the Bank. The Bank has not authorised any PPFs (PayPal is authorised by APRA), but has effectively exempted limited use and low-value facilities.

The Bank believes that the primary reason for regulation of PPFs should be to protect consumers' stored value. However, this regulation does not need to be the same as for ADIs. The promise provided to consumers purchasing a PPF is similar to that in a deposit (i.e. the full face value is expected to be redeemable), but PPFs do not extend credit and have simpler balance sheets than financial institutions. Reflecting this, the regulation of entities equivalent to PPFs in other jurisdictions is typically light-touch, focusing on: ring-fencing customer funds; restricting the assets that can be held by the provider (including applying liquidity requirements); and in some cases minimum capital requirements and restrictions on the payment of interest. Authorising PPFs as ADIs, but subjecting them to lesser supervision than other ADIs, might be seen as undermining the integrity of the ADI framework.

⁷ As an example, no-surcharge rules are most detrimental where merchants feel commercial pressure to accept a particular payment method. A small payment system that merchants felt under no obligation to accept would have difficulty enforcing a no-surcharge rule if it wanted its product to be accepted. Accordingly, a blanket ban on no-surcharge rules is likely to be little different in practice to requiring the removal of such rules only for systems that have a degree of market power.

While the Bank shares regulatory responsibility for PPFs under the PSRA, it is not well placed to authorise and supervise individual PPFs; such activities are markedly different to its other regulatory functions in relation to retail payments, which focus largely on high-level policy rather than supervision and enforcement.

A separate light-touch supervisory framework for PPFs would represent a graduated approach as PPFs would not need to be regulated within the same framework as ADIs. A separate decision would need to be made about whether there should be further graduation within any new framework, for instance replicating current arrangements whereby smaller facilities are not supervised. However, to the extent that a value threshold was applied for this purpose, a registration system that allowed monitoring of the stored value held by unsupervised facilities might be beneficial.

Where a PPF performs the functions of a payment system in its own right, it would be appropriate for that payment function to continue to be overseen by the Reserve Bank in the same way as other payment systems, with the option for designation and regulation when it is in the public interest.

Separately, the Bank considers that the definition of PPFs in the PSRA is unclear, making it difficult to enforce. In addition, non-ADI holders of stored value at the time that the current regulatory framework came into effect were deemed to be authorised.⁸ The status of these entities should be revisited.

Participants in payment systems

The Bank does not believe that it is necessary for regulation to require all payment system participants to be supervised. However, the Bank sees merit in the consideration of a lighter-touch supervisory framework, separate from the ADI framework, which new participants could seek to opt-in to, in order to demonstrate their standing to operators of payment systems and other payment system participants. It is likely that some retail payment systems would adopt this as a membership threshold.

Payment system participants are the members of payment systems who use those systems to facilitate the transfer of funds – often between financial institution accounts. For instance, a bank can facilitate the transfer of funds from a customer's account to the account of a customer of another bank through the cheque, Direct Entry, eftpos, MasterCard or Visa systems, provided both banks are participants in that system or have an agency arrangement with a participant. Payment system participants are usually, but not always, financial institutions. Opening participation to other entities increases competition, but this must be balanced against the potential for additional risk to be introduced to the payments system. Financial institutions have raised 'level playing field' concerns about competing with entities that are less regulated or unregulated.

The Bank believes that participants in payment systems do not all need to be regulated to the same standard. The regulatory obligations appropriate to financial institutions that accept deposits from the public and extend credit would be excessive for institutions with more limited business, because they do not make similar financial promises or pose the same risk to the financial system. However, it is legitimate for a payment system and its participants to seek some assurance about the financial standing of other participants and their capacity to meet their obligations. In some cases ADI status is adopted as the clearest objective test of the financial standing of potential participants, even though

⁸ As provided in Schedule 19, Part 5 of the *Financial Sector Reform (Amendments and Transitional Provisions) Act 1998*.

payment system operators would be prepared to admit a wider range of participants if another objective, but less onerous, test existed.

The specialist credit card institution (SCCI) framework introduced in 2003 and 2004 was an attempt to achieve a more competition-friendly approach to participation in the MasterCard and Visa credit card systems. This framework allowed entities that were not traditional financial institutions to join the MasterCard and Visa systems, but in the process forced them into APRA's ADI supervisory framework. The PSB has recently decided that, given developments in the credit card systems since 2004, this framework can be dismantled in favour of placing more discretion in the hands of MasterCard and Visa, potentially opening participation in these systems further. One reason for adopting this approach was that Australia's regulatory framework does not currently have a separate lighter-touch supervisory arrangement appropriate to entities whose focus is payments rather than deposit-taking.

Should a separate supervisory framework be established for PPF providers, it could also be extended to provide a lighter-touch supervisory framework for non-ADI payment system participants. The Bank does not consider that it would be necessary for all non-ADI payment system participants to be *required* by regulation to be supervised under such a regime, but a lighter-touch framework might readily be adopted by retail systems as the threshold for participation and provide a means for potential participants to demonstrate their standing to system operators and other participants. As with the Bank's suggestions for PPFs, such a regime should be clearly distinct from the ADI regime.

1.2.2 Independence and accountability

The Bank supports the Inquiry's consideration of the independence and accountability of regulators. The PSB benefits from a high degree of independence, and accountability mechanisms are in place to ensure that its powers and functions are carried out effectively and to the benefit of the people of Australia.

The operating model for the PSB provides a high level of accountability. The role and membership of the PSB is set out in statute with obligations for members to ensure that the Reserve Bank's payments system policy is directed to the greatest advantage of the people of Australia, and that the powers of the Bank are exercised in the public interest. The accountability mechanisms for the PSB include:

- A majority of members are independent, consistent with Recommendation 108 of the Wallis Inquiry (and with current ASX Corporate Governance Principles). Currently, only 2 of the 8 members of the PSB are Reserve Bank officials.⁹
- The Bank publishes an Annual Report providing a thorough account of the activities of the PSB and the Bank's Payments Policy Department over the preceding year. This report is tabled before Parliament and published on the Bank's website.
- The Governor and other senior officials of the Bank appear twice a year before the House of Representatives Standing Committee on Economics, where any aspect of the PSB's Annual Report or the Bank's operations can be raised.
- Consistent with its statutory obligations, the Bank consults widely and at length before undertaking any regulatory action. Where required, the Bank also publishes a Regulation Impact

⁹ More information about the membership of the PSB is available at <<http://www.rba.gov.au/payments-system/policy-framework/psb-board.html#members>>.

Statement as part of communicating any regulatory decision made by the PSB. It also remains very open to discussions with any and all parties that may be affected by the Bank's regulatory actions.

- The Bank's approach to its powers and the consultation it has undertaken are subject to scrutiny in the courts.
- The PSB has adopted a conflicts of interest policy addressing the possibility of any perception that the Bank's policy function and its operational role as provider of banking services may be in conflict.

The accountability mechanisms for the Reserve Bank as a whole are available at www.rba.gov.au/about-rba/accountability.html.

1.3 Technology

The Bank considers that its existing powers are adequate to deal with issues of innovation and technology in the payments system.

As noted in the Interim Report, the Bank has played a catalytic role in the progress that has been made to date to establish infrastructure that will support a modern real-time retail payment system (the New Payments Platform or NPP). However, in general, the Bank considers that the public sector should be cautious in playing such a role. In the case of real-time payments, the Bank intervened only after it had become clear that there were gaps in payment services that were not being addressed by the market and that coordination problems were playing a significant part in this. Furthermore, in seeking to have those gaps addressed, the Bank has not dictated solutions, setting out only the objectives and the proposed time frame and allowing the industry to determine the most efficient solutions. The Bank has worked cooperatively with the industry, and has not needed to use its standard-setting powers. The Bank considers this approach to have been effective, but notes that it would not be appropriate in all situations. In particular, any catalytic or regulatory intervention when technology is changing rapidly heightens the risk that inferior technology might be locked in or other unintended consequences occur.

Because the Bank only regulates where clear public interest considerations require intervention, it considers that the regulatory framework for the payments system fulfils the principle of technology neutrality; new technologies can evolve without regulatory hindrance. Similarly, the Bank's powers have been broad and flexible enough to handle an evolving market. For instance, the standards it set in the early 2000s for credit cards have remained relevant as payment methods have evolved to include online payments, near-field communication and mobile payments.

2. Financial Stability

The Bank supports the Interim Report's focus on mitigating systemic risk and improving the resilience of the financial system. The Bank's initial submission examined the issues surrounding these objectives in detail, devoting chapters to discussing the regulatory response to the global financial crisis and the sources and management of systemic risk in Australia (RBA 2014, pp 43–112). Some of the options raised in the Interim Report are considered below.

2.1 The Council of Financial Regulators

The Reserve Bank endorses the observation that Australia's regulatory coordination mechanisms have been effective. As demonstrated during the financial crisis, the CFR is an important vehicle for coordination and crisis management. The Reserve Bank and other CFR members believe that the current informal arrangements have underpinned its success as a vehicle for cooperation.

The Interim Report notes that the current arrangements have proven to be a flexible, low-cost approach to fostering collaboration and frank discussion among regulators. While acknowledging the good performance, the Report also includes the option of formalising the role of the CFR within statute, as has been adopted in some other jurisdictions in response to the crisis. In doing so, the Report acknowledged that 'legislation cannot be relied on to promote a culture of cooperation' and that formalising CFR powers in statute could engender confusion with agencies' existing mandates (FSI 2014, p 3-119). As noted in the Bank's initial submission, the potential benefits of greater formalisation of coordination arrangements should not be overstated, and these arrangements are too new in many advanced jurisdictions to judge their effectiveness (RBA 2014, p 67).

The lack of formal legislation related to cooperative arrangements should not be taken to imply an absence of structure and rigour in deliberative processes. The CFR agencies have several standing working groups charged with progressing initiatives such as reforms to crisis management powers, financial market infrastructure oversight and cross-border coordination. These working groups operate according to responsibilities agreed by the CFR and are accountable to it.

Another policy option raised in the Interim Report is to expand the CFR membership to include agencies such as the ACCC, the Australian Taxation Office and AUSTRAC. The Reserve Bank notes that the current arrangements provide for other agencies to attend as required to discuss specific topics of mutual interest and arguably is the most efficient use of regulators' resources. This engagement can be stepped up if needed without any diminution of the core CFR agencies' focus on their key mandates.

The Report also raises the prospect of greater reporting by the CFR to enhance transparency. Considerable effort is already made to publicise the work of the CFR, through the dedicated website for the CFR launched in February 2013, alongside regular reporting on the CFR activities in the Reserve Bank's *Financial Stability Review*. An additional option put forward in the Interim Report is for the CFR to produce an annual report. The CFR used to publish an annual report but ceased doing so in 2003, ahead of the commencement of publication of the Bank's inaugural *Financial Stability Review*. If there

is demand for more stand-alone reporting this could be met by the CFR producing an annual update on CFR activities. Another option would be for the Bank to provide for more segmented reporting on CFR activities in the *Financial Stability Review*.

2.2 The Prudential Perimeter

The Interim Report notes that, on rare occasions, it may be necessary to respond to risks outside the prudential regulatory perimeter. One option put forward is to enable the relevant Minister to designate institutions or activities to be brought into APRA's purview on systemic risk grounds, on advice from either the Reserve Bank or the CFR. Such powers are a relatively recent innovation, forming part of the package of reforms to the regulatory architecture in countries relatively heavily affected by the crisis such as the United States and the United Kingdom.

The Bank considers that current arrangements in this area are working well. The CFR, as laid out in its Charter, is already established as a forum to ensure that there are appropriate coordination arrangements for responding to actual or potential instances of financial instability. Part of this role includes advising the government on the adequacy of Australia's financial system regulatory arrangements, including the regulatory perimeter. In Australia, the non-prudentially regulated sector accounts for a much smaller share of the financial system than is the case in the United States and the United Kingdom. The CFR regularly reviews developments in financial markets and financial institutions. In addition to this, the Bank provides an annual report to the CFR regarding developments in the non-prudentially regulated sectors (FSB 2012, p 26). CFR members therefore regularly consider potential risks arising from these sectors, and, if necessary, potential action by member agencies within their areas of responsibilities. To date, these processes have proven adequate to monitor and manage systemic risks. That said, in the event that a systemic risk did arise that could not be handled within the mandate of the regulators, a mechanism to adjust the regulatory perimeter could potentially improve the response time in addressing the risk. As with macroprudential tools, the Bank and other CFR agencies will continue to closely monitor developments in the few countries that have adopted this approach, including processes to promote accountability.

2.3 Macroprudential Policy

The Bank concurs with the Interim Report's caution regarding unproven macroprudential tools. The Bank and the other CFR agencies view macroprudential policy as being subsumed within the broader financial stability policy framework in Australia. The Interim Report notes the existing framework where APRA, in consultation with the Bank and other CFR agencies, is responsible for administering prudential regulation.

Consistent with its existing mandate to promote financial stability, APRA has adapted its prudential intensity in light of developments in systemic risk. For example, following signs of increased risk appetite in the mortgage market, APRA recently surveyed mortgage underwriting standards, released guidance on managing mortgage risk, and asked the major banks to specify how they are monitoring lending standards and the ensuing risks to the economy.

As noted in the Bank's initial submission, tools like loan-to-valuation ratio and debt-servicing ratio limits on mortgages have only recently begun to be used in developed countries. It is still too early to judge their effectiveness with the available evidence so far mixed (RBA 2014, p 52); the effects of particular initiatives are not easily disentangled from those of other policy settings, including changes in monetary policy. APRA already has the powers to implement these tools if it was decided they

would be beneficial (APRA 2014, p 59). The Bank is not attracted to arrangements whereby prudential policy setting is spread across multiple agencies or groups of agencies. Australian agencies will continue to closely monitor how these tools perform overseas.

2.4 Stress Testing

The Interim Report seeks views on whether Australian regulators should make greater use of stress testing. Since a recommendation from the International Monetary Fund in 2012, APRA has increased available resources and begun a regular industry stress-testing cycle using a range of scenarios, across differing sectors (IMF 2012). The Bank has increased its engagement with APRA's stress-testing processes. The Bank has also surveyed stress testing internationally, and is continuing to build on this knowledge through its own modelling (Bilston and Rodgers 2013). Even so, stress testing will properly remain only one aspect of the Bank's financial stability analysis. Current stress-testing practice has a number of shortcomings, not least that deriving the outcomes from different scenarios necessarily involves extrapolating beyond historical experience (Borio, Drehmann and Tsatsaronis 2012).

2.5 Financial Claims Scheme

The Interim Report called for views on whether the Financial Claims Scheme (FCS) should be modified. The FCS provides protection and timely payout to depositors (up to \$250 000) in the unlikely event of a failure of an ADI, and provides compensation to eligible policyholders against a failed general insurer. Alongside the depositor preference regime in Australia, the FCS promotes confidence among depositors during times of stress, improving the resilience of the financial system and bolstering economic activity. The Bank views the availability of a safe financial product promising full payout – that is, a deposit – as being in the public interest, and believes that private sector providers of such a product have responsibilities and should bear appropriate costs to ensure their promises are kept.

The Bank supports the March 2013 CFR recommendation to switch to an ex-ante funding model for the FCS (RBA 2014, p 61). Such a model, which is now common among depositor protection schemes internationally, is in line with the principle of users paying for the benefit provided. It would also be consistent with IMF recommendations that Australia re-evaluate the merits of an ex-ante funding model (IMF 2012). The Bank also supports the CFR's proposal to broaden the allowable uses of FCS funds, which may reduce the overall costs that are imposed on deposit-taking institutions and the broader economy.

The Bank does not consider lowering the threshold for depositor protection under the FCS to be a high priority. The government set the current \$250 000 FCS threshold based on advice by CFR agencies after weighing the merits of higher thresholds – which may impede market discipline – and lower thresholds, which may not adequately bolster confidence in times of stress. In so doing, it drew a line between those depositors considered to be in need of protection and sophisticated depositors, who were deemed to be more capable of assessing and managing risk. Competition was another consideration; for instance, a lower limit may lessen the ability of smaller ADIs to attract deposits. The \$250 000 threshold also aligns with APRA's existing threshold for the distinction between retail and wholesale deposit-taking by ADIs.

As noted in the Interim Report, the FCS has imposed compliance costs on ADIs, though this is appropriate given ADIs' responsibilities as providers of a financial product promising full payout on demand. The financial crisis showed the importance of promoting depositor confidence in the financial system, and the role that deposit insurance has in maintaining that confidence.

3. Crisis Management and Resolution

The Interim Report observes perceptions in a number of countries, including Australia, that some institutions are ‘too big to fail’. This is the perception that the institution would receive government solvency support, because its failure would damage the financial system and broader economy. Such perceptions can reduce market discipline and alter management incentives, which in turn may result in an imprudent allocation of risk and resources from society’s point of view.¹⁰

The Interim Report puts forward a number of measures to minimise the extent of perceptions that institutions are ‘too big to fail’ in Australia. The measures aim to reduce the probability that such institutions will fail and/or strengthen the likelihood or credibility of orderly resolution with minimal taxpayer support. In considering the merits of the various options, it is important to assess both the stability implications as well as the effects on competition, and to take account of the substantial work underway, globally and domestically, seeking to improve the resilience of the financial system. The Bank’s initial submission discussed these at length, though a brief recap of some key areas is provided below (RBA 2014, pp 43–72).

3.1 Recovery and Resolution Preparedness

As detailed in the Bank’s initial submission, a number of steps have been taken in the area of crisis management and resolution arrangements in recent years (RBA 2014, p 58). The Financial Stability Board’s (FSB’s) peer review of resolution regimes in 2013 suggested that Australia’s resolution arrangements for ADIs and insurers were generally consistent with international best practice and compared well to many other jurisdictions. That said, it is an inherently challenging area that requires continuing attention, and the Bank endorses the Inquiry’s support for ongoing work in this area.

Work on recovery and resolution preparedness in Australia across the main financial agencies is coordinated through the CFR, which has a longstanding working group dedicated to crisis management. This work seeks to improve CFR agencies’ preparedness to manage a financial stress situation in an orderly fashion. It maintains a crisis management training framework, which incorporates regular training exercises and testing of the CFR agencies’ ability to respond to and coordinate actions in a crisis situation. Under the auspices of the Trans-Tasman Council on Banking Supervision, work is also continuing on response arrangements for the Australian and New Zealand authorities in the event of financial stress with a trans-Tasman dimension.

3.2 Imposing Losses on Creditors

The Interim Report seeks views on options to increase the ability to impose losses on creditors in the event of a systemically important ADI’s failure. The appropriate resolution strategy for a failed institution depends on the circumstances. Accordingly, it is helpful to have a range of potential

¹⁰ For example, if reduced market discipline were to allow firms to access funds at a lower cost than would otherwise be the case, management may then be encouraged to take on projects that would otherwise have been considered non-viable.

resolution tools available, a point often emphasised in current international deliberations on this issue. Imposing losses on creditors could potentially be achieved via statutory bail-in powers or by business transfer.¹¹ In some instances, the best outcome could be achieved using a mix of strategies.

As outlined in the Bank's initial submission, 'bailing in' unsecured senior creditors could potentially reduce the fiscal cost of a systemically important bank's resolution, but it also carries the risks of deepening the institution's financial distress and spurring contagion to the broader financial system (RBA 2014, p 49). To date there are few, if any, examples of banks that have successfully been resolved as going concerns through the use of bail-in powers. These risks mean that the design and use of bail-in policy options need to be approached cautiously.

The FSB is coordinating international efforts to assess and develop proposals for 'gone concern loss absorbing capacity' for global systemically important banks (G-SIBs), to be presented to the G20 Summit in Brisbane in November 2014. These proposals aim to ensure that G-SIBs' funding structures are compatible with orderly resolution if a G-SIB fails, while minimising the need for taxpayer-funded support. Although the proposals would not apply to Australian-owned banks (as they are not currently globally systemic), the CFR agencies, including the Bank, are closely following this work, with a number of agencies represented in the international forums that are helping to shape the proposals.

3.3 Resolution Powers and Financial Market Infrastructure Oversight and Resolution

The Interim Report notes two areas where work is underway to address gaps related to resolution.

- Some areas where current resolution powers and tools could be enhanced, as outlined in the 2012 consultation paper *Strengthening APRA's Crisis Management Powers* (Treasury 2012).
- The CFR's 2012 recommendations, including a specialised resolution regime, to address gaps identified around regulation of financial market infrastructures.

The Bank strongly endorses the Inquiry's support of the ongoing process to strengthen regulators' resolution powers in these areas.

3.4 Ring-fencing

As the Interim Report observes, policymakers in Europe and the United States have mandated the separation of certain aspects of banks' commercial banking and investment banking businesses. The appeal of structural separation in these jurisdictions is that it would quarantine risks posed by the large and potentially complex trading and investment banking business of many of the large banks; some of this trading and investment banking activity has been considered more risky than the traditional commercial banking operations serving the needs of these banks' customers in the non-financial sectors. These ring-fencing efforts are relatively new and so their effects remain unclear.¹²

The Inquiry seeks opinions on whether ring-fencing would be appropriate in Australia. Relevant for assessing the cost-benefit relationship in Australia is the fact that trading books comprise a small

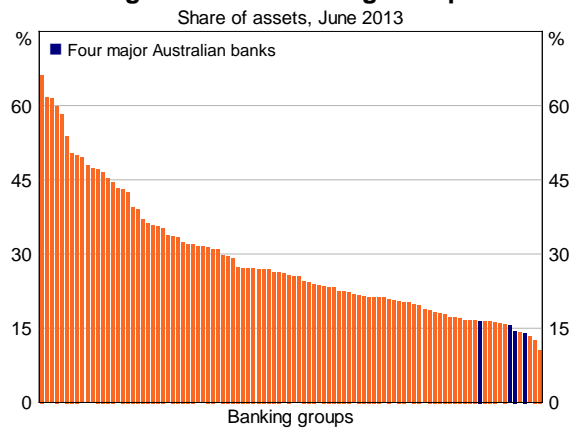
¹¹ A recent example of bail-in (of junior creditors) by business transfer is the resolution of Banco Espírito Santo in Portugal, in which most assets and the depositors and senior creditors' claims were moved to a new 'good bank', Novo Banco.

¹² For example, Keppo and Korte (2014) suggest that the limits on commercial banks trading asset holdings, as part of the Volcker rules, have not resulted in a decline in risk-taking.

portion of Australia’s large banks’ balance sheets so there is less scope for large trading losses to ‘spill over’ and affect the provision of credit to the economy (Graph 1). Given this, a less costly approach (such as APRA’s approach of proactive supervision) could address the objectives that ring-fencing is designed to achieve.

Non-operating holding company structures are available in Australia, and a small number of APRA-regulated entities currently use this corporate structure. However, such structures are more relevant to business models that combine commercial banking with substantial non-banking business or activities in capital markets; these are not applicable to the vast majority of ADIs in Australia.

Graph 1
Trading Assets and Securities of the
Largest Global Banking Groups*



* Ratios across banking groups are subject to definitional differences; includes derivative assets; sample of 100 banking groups; latest available ratios have been used where June 2013 data are unavailable
 Sources: RBA; SNL Financial; *The Banker*; banks’ annual and interim reports

4. Superannuation

The Reserve Bank endorses the focus of the Interim Report on the efficiency of the superannuation system. In particular, the Bank supports consideration of measures to lower costs and fees, optimise liquidity management, and limit leverage. Above all, superannuation assets should be managed in the best interests of members.

4.1 Costs and Fees

The Interim Report finds little evidence of strong fee-based competition in the superannuation sector. The Bank supports the Inquiry's wideranging consideration of measures to enhance competition and hence reduce costs. This could include the performance of back-office functions, including by administrators and custodians, and whether current practices are exposing members to more risk than the members realise.

As noted in the Bank's initial submission, disengagement among members, as well as complexity and difficulty in comparing fees across funds all likely contribute to the relatively high cost of Australia's superannuation system. However, costs in the superannuation system should not be considered in isolation. Measures that reduce costs may create additional risks to members' retirement incomes, government and employer finances, and financial stability. For instance, although there is some evidence that countries with a privately managed defined contribution system and a large number of small funds, such as Australia, typically have higher operating costs than countries with a few relatively large funds offering defined benefit schemes (OECD 2013), the latter structure may place additional pressure on government and employer finances. In countries that are dominated by defined benefit schemes, an ageing population can expose employers or governments to shortfall risk, if growth in pension liabilities outpaces that of employers' revenue or the tax base (Broadbent, Palumbo and Woodman 2006).

4.2 Liquidity Management

Liquidity management is a key challenge for superannuation funds and is well worth the Inquiry's consideration. This should include the efficacy of the current requirements to allow portability between funds and investment switching. The portability requirements, in their current form, may result in individual funds holding more liquid assets than is optimal given the nature of superannuation as long-term savings to fund retirement incomes. Regardless of whether these requirements change, it is important that superannuation funds continue to assess the potential liquidity risks associated with a sudden sell-off of a particular asset class, as well as the liquidity implications of an ageing population.

The Reserve Bank agrees with the Inquiry's view that providing superannuation funds with access to a dedicated liquidity facility at the Reserve Bank would not be an appropriate way to address their normal liquidity challenges. First, superannuation funds that meet certain requirements can already participate in repurchase agreement (repo) auctions conducted by the Reserve Bank in its open market operations, and can access liquidity through this mechanism. Second, a significant use of

repos to draw on a liquidity facility would lever superannuation funds, potentially increasing vulnerabilities in the financial sector (albeit on a competitive basis). More generally, any leverage for liquidity purposes needs to be limited.

4.3 Leverage

The Bank endorses the observation that leverage by superannuation funds may increase vulnerabilities in the financial system and supports the consideration of limiting leverage. As emphasised in the Bank's initial submission, the general absence of leverage in superannuation was a key source of resilience in the Australian financial system during the financial crisis (RBA 2014, p 171). Furthermore, the compulsory and essential character of retirement savings implies that it should remain largely unlevered. While still in its infancy, the use of leverage by superannuation funds to enhance returns appears to have been mainly taken up by self-managed superannuation funds (SMSFs). The Bank has previously commented on the risks that may arise from geared property investment through SMSFs, which may act as an additional source of demand that exacerbates property price cycles (RBA 2013b). Nonetheless, some limited leverage for liquidity management purposes may be appropriate.

5. Housing Finance

The Interim Report finds little evidence of a shortage of mortgage finance in Australia, a view that the Bank shares. Even so, the Interim Report raises a number of options in the context of competition in the mortgage market that, if implemented, could result in relatively more finance being directed towards housing. These options should be assessed in terms of the end benefits and risks for consumers and the broader economy. Relevant considerations include whether the policy change might accelerate household borrowing, and the associated implications for systemic risk and the available funding for Australian businesses. As noted in the Bank's initial submission, housing is generally not a particularly risky asset, but because of its size, importance to the real economy and interconnectedness with the financial system it poses systemic risk. To illustrate, some of the options raised in the Interim Report are considered below.

5.1 Capital Requirements

The Interim Report highlighted several options for aiding competition through Australia's capital framework, including changes to mortgage risk weights and providing capital inducements for ADIs that use Lenders' Mortgage Insurance. As noted in the Bank's initial submission, because of the cyclical nature of risk-taking and the large social and economic costs of instability in financial systems, it is crucial that institutions' capital be allocated according to risk (RBA 2014, p 8). Hence, changes to the capital framework on competitive grounds should not come at the expense of greater risk, and should not amount to a weakening relative to global regulatory minima.

5.2 Government Support for RMBS

In considering the need for government support of the residential mortgage-backed securities (RMBS) market, it is important to identify the purpose of such intervention and/or the market failure that is intended to be addressed. Although the government provided targeted support to the domestic RMBS market as part of its crisis response, there would be risks associated with making these kinds of arrangements permanent. Government support for the RMBS market can expose taxpayers to large contingent liabilities and foster imprudent risk-taking, as has been demonstrated overseas (see, for example, Calomiris (2011)). Moreover, conditions in the domestic RMBS market have improved over recent years (Aylmer 2013) and, as the Interim Report notes, there is little evidence of a market failure.

The Interim Report also called for views on whether RMBS should be treated as high-quality liquid assets (HQLA) for the purposes of the liquidity coverage ratio (LCR) requirement under Basel III. APRA, in consultation with CFR members, considered the market characteristics of domestic RMBS against the qualifying criteria issued by the Basel Committee on Banking Supervision. This includes the criteria that assets must trade in large, deep and active markets, and be liquid during a time of stress (BCBS 2013, p 7). In APRA's view, reached in consultation with the Bank, RMBS do not meet all of these criteria (APRA 2013, p 8). Overturning this decision in order to spur competition in this market could reduce the efficacy of liquid asset holdings and hence ADIs' ability to manage liquidity prudently.

Reserve Bank of Australia
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References

APRA (Australian Prudential Regulation Authority) (2013), 'Implementing Basel III Liquidity Reforms in Australia', Discussion Paper, May. Available at <<http://www.apra.gov.au/adi/PrudentialFramework/Documents/Implementing%20Basel%20III%20liquidity%20reforms%20in%20Australia%20-%20May.pdf>>.

APRA (2014), 'APRA's Submission to the 2014 Financial System Inquiry', 31 March. Available at <<http://www.apra.gov.au/Submissions/Documents/APRA-2014-FSI-Submission-FINAL.pdf>>.

Aylmer C (2013), 'Developments in Secured Issuance and RBA Reporting Initiatives', Address to the Australian Securitisation Forum, Sydney, 11 November.

BCBS (Basel Committee on Banking Supervision) (2013), 'Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools', January. Available at <<http://www.bis.org/publ/bcbs238.pdf>>.

Bilston T and D Rodgers (2013), 'A Model for Stress Testing Household Lending in Australia', *RBA Bulletin*, December, pp 27–38.

Borio C, M Drehmann and K Tsatsaronis (2012), 'Stress-testing Macro Stress Testing: Does it Live Up to Expectations?', BIS Working Papers No 369.

Broadbent J, M Palumbo and E Woodman (2006), 'The Shift from Defined Benefit to Defined Contribution Pension Plans – Implications for Asset Allocation and Risk Management'. Available at <<http://www.bis.org/publ/wgpapers/cgfs27broadbent3.pdf>>.

Calomiris CW (2011), 'An Incentive-Robust Program for Financial Reform', *The Manchester School*, 79 (Supplement s2), pp 39–72.

Federal Reserve System (2011), 'Regulation II, Debit Card Interchange Fees and Routing; Final Rule', 12 CFR Part 235, Federal Register, Vol 76, No 139. Available at <http://www.stlouisfed.org/regreformrules/pdfs/2011-7-20_frs_final_debit_card_interchange_fee_rule.pdf>.

FSB (Financial Stability Board) (2012), 'Global Shadow Banking Monitoring Report 2012', 18 November. Available at <http://staging.financialstabilityboard.org/publications/r_121118c.pdf>.

FSI (Financial System Inquiry) (2014), *Financial System Inquiry Interim Report* (D Murray, Chair), July. Available at <http://fsi.gov.au/files/2014/07/FSI_Report_Final_Reduced20140715.pdf>.

IMF (International Monetary Fund) (2012), 'Australia: Financial System Stability Assessment', IMF Country Report No 12/308, November. Available at <<https://www.imf.org/external/pubs/ft/scr/2012/cr12308.pdf>>.

Keppo J and J Korte (2014), 'Risk Targeting and Policy Illusions – Evidence from the Volcker Rule', July. Available at <<http://dx.doi.org/10.2139/ssrn.2466477>>.

OECD (Organisation for Economic Co-operation and Development) (2013), *Pensions at a Glance 2013: OECD and G20 Indicators*, OECD Publishing. Available at <<http://www.oecd.org/pensions/public-pensions/OECDPensionsAtAGlance2013.pdf>>.

Parliament of the Commonwealth of Australia (1998), 'Explanatory Memorandum to the Payment Systems (Regulation) Bill'.

RBA (Reserve Bank of Australia) (2008), *Reform of Australia's Payments System: Conclusions of the 2007/08 Review*, September.

RBA (2009), 'Payments System Reform', Media Release No 2009-18, 26 August.

RBA (2013a), *Payments System Board Annual Report*, October, p 24.

RBA (2013b), 'Box D: Self-managed Superannuation Funds', *Financial Stability Review*, September, pp 54–57.

RBA (2014), 'Submission to the Financial System Inquiry', 31 March.

RBA and ACCC (Australian Competition and Consumer Commission) (2000), *Debit and Credit Card Schemes in Australia: A Study of Interchange Fees and Access*, October.

Schwartz C, J Fabo, O Bailey and L Carter (2008), 'Payment Costs in Australia', in *Payments System Review Conference*, Proceedings of a Conference, Reserve Bank of Australia and Centre for Business and Public Policy at the Melbourne Business School, Sydney, pp 88–138.

The Nilson Report (2011), 'The Nilson Report: Issue 983', November.

The Nilson Report (2014), 'The Nilson Report: Issue 1041', May.

Treasury (2012), *Strengthening APRA's Crisis Management Powers*, September. Available at <<http://www.treasury.gov.au/ConsultationsandReviews/Consultations/2012/APRA>>.

United States Government Accountability Office (2009), 'Credit Cards: Rising Interchange Fees Have Increased Costs for Merchants, but Options for Reducing Fees Pose Challenges', Report to Congressional Addressees, November. Available at <<http://www.gao.gov/assets/300/298664.pdf>>.

Woolworths Limited (2010), 'Woolworths to Move all Debit Transactions to the Australian EFTPOS Network', Press Release, 1 April. Available at <http://www.woolworthslimited.com.au/icms_docs/130116_Woolworths_to_move_all_debit_transactions_to_the_Australian_EFTPOS_network.pdf>.