SUBMISSION 1

'AussieMac'

A Policy Initiative for the Australian Government to Restore a Vigorous Level of Competition to the Australian Home Loan Market and Protect Households and the Financial System Against Future Credit Crises

Submission to the House of Representatives Standing Committee on Economics: *Inquiry into Competition in the Banking and Non-Banking Sectors*

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About

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About the Authors

Christopher Joye is Managing Director of Rismark International, a quantitative research, investment and intellectual property development firm. He led the 2002-2003 Prime Minister's Ownership Task Force and was the lead author of its main report. In 2007, the Bulletin Magazine selected Christopher as one of Australia's "10 Smartest CEOs" while BRW included Christopher in its list of "Australia's Top 10 Innovators". Christopher previously worked with Goldman, Sachs & Co in London and Sydney and with the Reserve Bank of Australia. Christopher received Joint 1st Class Honours and the University Medal in Economics & Finance from the University of Sydney. He was a Commonwealth Trust Scholar at Cambridge University where he studied for a PhD.

Joshua Gans is an economics professor at Melbourne Business School in Australia. His research focuses on microeconomics, competition policy and innovation. He is the author of several textbooks and policy books, as well as numerous articles in economics journals. Gans received a Bachelor of Economics (Honours) and the University Medal from the University of Queensland before going to Stanford University to study for his Ph.D. in Economics. He graduated from Stanford in 1995 and moved to Melbourne Business School in 1996 as an Associate Professor and became a full Professor in 2000. In 2007, Gans received the inaugural young economist award from the Economic Society of Australia. This is an award given every two years to the best economist working in Australia, who is aged under 40.

Disclaimer

Christopher Joye is Managing Director and Joshua Gans is an advisor to Rismark International, a provider of shared equity mortgages in Australia, amongst other things. While Rismark has an interest in the efficient operation of home lending markets in Australia, it does not fund through the RMBS securitisation markets; the focus of the policy proposals contained in this submission.

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Introduction

The degree of competition in the Australian banking and non-banking lending sectors is critical to both enhancing housing affordability as well as providing an efficient supply of funds to both corporates and small and medium enterprises (SMEs). It is with this firmly in mind that we make this submission to the House of Representatives Standing Committee on Economics and its Inquiry into Competition in the Banking and Non-Banking Sectors.

Our submission concerns the sustainability of sources of baseline funding for the provision of home mortgages in Australia. In this regard, our analysis and proposal here addresses the Committee's goal of identifying "any barriers that may impact on competition in the retail banking and non-banking sectors, and policies to enhance further competition and product choice for consumers."

Our concern is that since the deregulation of the Australian financial system following the Wallis Inquiry, Australia has been left without key long-term, government-sponsored institutional support for the supply of third-party (or 'securitised') funding capital for home mortgages. This type of institutional support exists in our peer economies and, in recent times, its value as a safeguard to consumers and a provider of financial stability has been comprehensively established.

Here we submit that Australia needs to revisit its institutional arrangements with respect to markets for third-party funding for the purposes of providing home mortgages. This is not simply because a minimum level of liquidity in this sector will benefit Australian households. It is also because shocks to the securitised funding sector flow almost immediately through to riskier aspects of lending; in particular, to SMEs and corporates. This therefore threatens not only competition in lending, but also competition throughout the entire economy.

Our proposal is that the Commonwealth Government move to establish a government-owned enterprise – which we have termed 'AussieMac' – to provide a minimum level of back-stop stability to the residential mortgage-backed securities (RMBS) market in Australia. This market has generated significant long-term capital for banks, building societies and non-banks to expand lending for home mortgages and allowed previously tied-up funds to be redeployed to corporates and SMEs. However, recent instability in global financial markets has resulted in the temporary disappearance of the 'primary' RMBS market as a source of funding for lenders. In recent times, this market furnished up to 20% or more of all the funding for all Australian home loans. While the closure of this market may ultimately prove to be temporary, its failure for over 9 months has wrought, and continues to inflict, severe havoc on the Australian financial system with no relief as yet in sight. This is in spite of the inherent strength and integrity of Australia's economy and the overwhelming evidence that our mortgage market does not suffer from any of the problems that have recently plagued the US.

The evaporation of the supply of securitised funding for home loans has been extreme and has had the consequence of reversing the most significant increase in competition in Australia's retail lending sector seen in the history of the nation. That dramatic rise in competition was enabled by the ability of lenders to source funding from the primary RMBS market (via the process of securitising mortgages) and in turn facilitated the entry of a large number of new lending participants popularly known as 'non-bank' providers (eg, Aussie, RAMS, Wizard, Resimac, Challenger Financial Services and others). Importantly, the advent of this entirely new source of funding for home loans in Australia also significantly improved the ability of smaller regional banks (eg, Adelaide Bank, Bank of Queensland, and Suncorp) and building societies (eg, Credit Union Australia and Heritage Building Society) to effectively compete with the Big-5 Banks in the provision of housing finance.

This submission proceeds as follows. Our first part summarises the key elements of our argument including the international shocks that have so devastated the RMBS market, the economic case for the government provision of liquidity to such markets, and the various policy responses that have been proposed. We also outline the case for a permanent, long-term government-sponsored enterprise as a favoured direction.

Our more detailed initial report outlining the specifics of 'AussieMac' is appended to this submission. Since the March 2008 publication of that report by the Centre for Ideas and the Economy at Melbourne Business School, there has been considerable public and governmental discussion of the AussieMac proposal. To assist the Committee in understanding the nature of the debate and continued developments in financial markets since the publication of our original paper, we have provided a 'Postscript' that serves as the second part of this submission. It details all of the arguments in favour of, or against, our proposal and our responses in each case. It also provides a thorough analysis of the current state of liquidity in the RMBS market and the competitive dynamics in the Australian home loan industry.

Part I: The Need for AussieMac

The current global credit market crisis highlights the need for the Commonwealth Government to introduce a policy proposal that would insulate Australian households, and the key financial institutions that provide them with funding, from external liquidity shocks.

Our solution is motivated by the growing frequency with which extreme financial market dislocations appear to be occurring as a result of the tendency of investors to systematically overreact to positive (eg, the equities 'tech boom') and negative (eg, the subsequent 'tech wreck') events. These behavioural biases implicit in the actions of investors can persist for relatively prolonged periods of time. They have become increasingly well-documented in the academic literature over the past decade and undermine traditional notions of investor rationality and so-called 'market efficiency'. When markets do fail there is a clear role for governments to intervene and supply participants with the 'public goods' of a minimum level of liquidity and price discovery.

In a report by the Melbourne Business School's Centre for Ideas and the Economy (appended to this submission), we argue that there is an opportunity for the Commonwealth Government to intervene to mitigate the adverse competitive consequences associated with the current failure of the 'primary' RMBS market. The Government can achieve this objective without disintermediating private sector activity or drawing meaningfully on taxpayer funds.

The Current Financial Shock

It is now beyond dispute that the subprime crisis and flow on effects in the United States (US) has closed the primary RMBS market in Australia. We believe that this closure, even if temporary, will almost certainly have long-term consequences for the cost, flexibility and availability of Australian credit in both the residential mortgage and business lending sectors (see Part II for more detail). The difficulties faced by Australian lenders trying to securitise AAA-rated home loans via the primary RMBS market, which has been the source of over $284 billion of cost-effective 'off balance-sheet' funding since 2002 alone, has resulted in the effective withdrawal of important alternative credit providers (eg, Macquarie Bank, RAMS, Virgin Money, GMAC and Seiza to name a few) and a dramatic reduction in the capacity of smaller providers to offer credit (eg, Adelaide Bank, Challenger Financial Services, Members Equity Bank, Credit Union Australia, ANZ Bank's Origin operation, Resimac, and Heritage Building Society). The interested reader is referred to Part II of our submission, which provides a more detailed analysis of this subject. There have also been other, unforeseen, consequences, such as the disappearance of more than 23% of the 'reverse mortgage' market (via the withdrawal of Australian Seniors Finance and Macquarie Bank, and dramatic credit rationing by Bluestone) which is the only source of 'equity release' finance available to the asset-rich yet income-poor retiree households. As Australia's population ages, these equity release solutions will become increasingly important.

The advent of RMBS securitisation in Australia during the mid 1990s transformed the mortgage market by intensifying competition to the demonstrable benefit of households. For example, **the 'spread' between the interest rates paid by borrowers and the bank bill rate fell from around 4% in 1992 to about 1.4%**

prior to the onset of the sub-prime crisis in August 2007. This compression in the cost of mortgage finance was almost exclusively attributable to the competitive pressures enabled via the process of securitisation. With the effective closure of the primary securitisation market, the rationing of credit has already begun (on an 'intra-market' basis) with a striking increase in industry concentration. According to Fujitsu Consulting, the Big-5 Banks' new home loan market share has risen from 75% (pre sub-prime) to 90% today with the process of consolidation continuing—contrary to the claims of some that the market would return to normalcy—with force throughout 2008. The 'reintermediation' of the major banks back into the home loan market is also resulting in the rationing of credit in other, more capital-intensive, sectors, such as corporate and SME lending (which has a 100% risk-weighting rather than the 35-50% risk weighting applied to home loans).

Importantly, the present evaporation of third-party liquidity for prime Australian home loans has occurred in spite of their extraordinarily low historic default rates, which rank among the best in the world, and the exceptional overall health of our domestic economy. For example, despite 8 official interest rate rises since March 2005 and two de-facto rate hikes effected by lenders, the default rate on prime Australian home loans is still only around 25% of the level of equivalent US loans, and about 5-10% of the level of US sub-prime loans. According to Standard & Poor's data, 30 day scheduled balance default rates on prime Australian home loans were just 1.04% in February 2008.

Why this requires a Government Response

Financial markets are prone to instability and liquidity shocks. This had led some economists and financial analysts to question whether any government response is needed, and if such issues should be 'left to the market.'

We argue here that such views are inconsistent with the latest economic and policy-making thinking on the subject of liquidity in capital markets.[3] Indeed, **the provision of a basic level of liquidity in key economic markets is a 'public good'.** Liquidity is important in the economy because there are many transactions and investments that cannot take place unless funds are pre-committed and available in an on-going manner. This is certainly true in home mortgage finance, but also extends to other areas such as small business lending where other forms of finance (such as equity) cannot be readily utilised.

The private supply of liquidity is likely to be adequate when risks are diversified. However, as we have observed in recent times, the Australian economy can face systematic shocks that often originate from external sources. These are becoming increasingly common and more quickly transmitted in today's highly networked world. Such risks are not easily diversifiable by private investors alone and, in times of crisis, the supply of liquidity can dry up–well beyond what is necessary or prudent.

Away from the theoretical ideal of financial markets, in the real world, investors are finding that they are increasingly faced with periods of profound illiquidity, extremely poor price discovery, and, in certain cases, complete 'market failure.' In the financial market history of the last two decades, there are numerous examples of this illiquidity problem and governments acting to remedy it. In 1998, the massive hedge fund LTCM confronted severe illiquidity for its securities when the Russian government defaulted on its debt obligations. At that time, the US Fed acted to facilitate a bail-out of LTCM by a consortium of investment banks.

To many, these incidents highlight the increasingly accepted notions that markets are not always perfectly efficient. One source of this inefficiency relates to 'informational' problems whereby the costs of acquiring

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[3] We document the key economic literature in our appended original report.

information (say, about the actual risk profiles of home loans underlying investment portfolios) can lead to credit rationing in times of aggregate uncertainty.

In addition, there is increasing recognition that market traders and investors are subject to systematic behavioural biases. Pioneering academics such as the 2002 Nobel Prize winner Daniel Kahneman and the late Amos Tversky have applied principles from psychology, sociology and anthropology to document that in practice people behave in a manner that can deviate strikingly from the 'equilibrium' predictions of the efficient markets hypothesis (and the notion of 'rational expectations' in particular). This has generated an academic movement in studying behavioural finance.

Arguments around investor fallibility make intuitive sense if we consider the speculative booms and busts throughout history such as the Dutch tulip mania, the rise and fall of junk bonds in the 1980s, the related 1987 stock market crash, the late 1990s tech craze, the inevitable tech wreck of 2001, and, finally, the recent credit boom and subsequent crunch. Over the last 20 years a large body of evidence has built up illustrating that humans are fallible and subject to a wide range of biases, including irrational 'loss-aversion', 'framing', use of 'heuristic' rules of thumb, 'hindsight biases', and 'cognitive dissonance' (ie, avoiding information that conflicts with our assumptions).

Importantly, academics have shown that there can be major mispricings and return anomalies in financial markets due to these behavioural biases. In particular, the tendency of humans to identify fictitious 'patterns' in otherwise random return sequences, and for us to be consistently 'over-confident' in our assessment of our own judgment, can result in significant over- and under-reactions in market prices. There is also compelling evidence of the anecdotally well-known market phenomenon of 'herding' and 'groupthink' whereby strongly anomalous market-wide effects can materialise when there is collective fear and greed amongst investors.

Recognising these information asymmetry problems and the occasional frailties in human decision-making under uncertainty has an impact on how we conceive of regulation and its effect on financial markets. For example, recent regulatory changes that require institutions to 'mark-to-market' securities that they would previously hold to 'term' can act to further exacerbate liquidity crises caused by irrational investor behaviour. In the presence of mark-to-market prices that do not accord with reasonable assumptions of fair value, institutions are reluctant to lend to one another. This creates potentially enormous problems for the financial system at large as transactions that were previously considered to be nearly risk-free are subject to perceptions of 'counterparty risk.' Bear Stearns discovered this in March 2008 when Goldman Sachs refused to deal with it. The result was a very rare 'non-bank' bailout whereby the New York Federal Reserve took Bear Stearns's otherwise illiquid assets as security and lent JP Morgan the US$30 billion that it needed to buy the company.

When markets fail and price discovery collapses, the provision of a minimum level of liquidity acts as a public good. That is, it is something under-provided by the private sector relative to the benefits it confers on the whole. Critically, the knowledge that liquidity will be available even in situations where the economy faces an aggregate shock makes investments contingent on that liquidity (such as SME investing) cheaper at all times. It is not so much a stimulus in bad times as a form of insurance to mitigate costs at those times.

We are seeing the adverse effects of the disappearance of liquidity in Australia's 'primary' AAA-rated mortgage securitisation market today for reasons that are largely unrelated to the quality of our financial institutions or the borrowers they service. This is a market that has funded up to 20% of all Australian home loans and accounted for $284 billion worth of transactions since 2002. The ability to securitise very low-risk Australian home loans was critical to the emergence of competition in the home loan industry during the mid 1990s and the striking compression in mortgage margins. Since the closure of the primary securitisation market the share of 'new' home loans attributable to the Big-5 Banks has increased from 75% to around 90% according to Fujitsu Consulting. At the same time, the many smaller banks, building societies and non-bank lenders who have wholly or partially predicated their business models on having access to a minimum level of liquidity in third-party mortgage securitisation markets have either had to stop lending altogether or severely ration the home mortgage credit they can supply (see Part II for more detail).

This is the consequence of not having an Australian government infrastructure that protects the public goods of liquidity and price discovery in the market for mortgage-backed securities. We do have such an infrastructure, known as the central banking system (ie, via the RBA and APRA), which serves to furnish a minimum level of liquidity to deposit-taking institutions in this country. However, the central banking system was not created with 'non-banks' in mind and therefore confers no support to them. Indeed, as we show in our paper, a compelling case can be made for the current central-banking system further entrenching the market power of the Big-5 Banks to the detriment of wider competition in the home lending industry. The central-banking system is also not geared towards provide long-term liquidity to the mortgage-backed securities market.

Similar infrastructures to our AussieMac proposal have been put in place in Canada with the government-owned CMHC and in the US with the once public and now privatised government sponsored enterprises (GSEs), Fannie Mae and Freddie Mac. As we show in our appended paper, the presence of these institutions has delivered tremendous benefits to households in those markets throughout the global credit crisis. For example, while in Australia there have been virtually no public securitisations of AAA-rated home loans since November 2007, with severe adverse consequences for competition in Australia's home mortgage market, Canada's CMHC has been able to successfully securitise C$20 billion worth of Canadian home loans in December 2007 and March 2008 at a cost dramatically lower than the indicative pricing available to Australian lenders (refer to our Postscript in Part II for more detail).

In summary, **the Commonwealth needs to investigate in a considered manner the government institutions that can be introduced to support the provision of a minimum level of liquidity in the economy given the emergence of the new RMBS market since the early to mid 1990s. This will in turn have profound consequences for the depth and breadth of effective competition in Australia's mortgage market.**

Options to Enhance Liquidity

Recent actions by the RBA, via the expansion of its repurchase (or 'repo') agreements to accept mortgage-backed securities as collateral and the lengthening of the typical term over which it will provide funding for such securities, and the Commonwealth Treasury, which has expanded the Australian Office of Financial Management's mandate in a similar way, demonstrate that our key economic agencies appreciate the public good aspects of liquidity in financial markets. The problem is that the beneficiaries of these public goods are limited and currently exclude the non-bank sector.

For example, one response of the RBA to the liquidity crisis has been to broaden the range of securities that can be used in its 'repo' facilities to include AAA-rated RMBS. However, the RBA will only provide funds for 90% of the face value of the securities, thereby giving rise to a significant funding gap, and will only lend for a limited period of time, which is not normally longer than 12 months (ie, the RBA does not actually buy the assets as would be the case with a conventional securitisation). This is, therefore, a very restricted solution to the inability of Australian lenders to securitise high-quality home loans, which, more importantly, is only 'practically' available to ADIs since non-bank lenders cannot repo their own assets and would not ordinarily have any other assets to use as security.

Proof positive of the limited nature of the RBA solution is that it has had absolutely no impact in preventing either the complete withdrawal from the home loan market, or the introduction of extreme credit rationing, by important alternative providers of housing finance such as Macquarie Bank, Adelaide Bank, Challenger Financial Services, Members Equity Bank, Credit Union Australia, ANZ Bank's Origin operation, Resimac, Heritage Building Society, Virgin Money, and GMAC. In addition, GE Money has recently announced that it intends to sell Wizard Home Loans, which was reportedly motivated at least in part by the effects of the credit crunch, while one of the original non-bank pioneers, RAMS Home Loans, was also forced into a distressed sale as a consequence of funding pressures.

Perhaps the clearest indication of the competitive merits of our proposed AussieMac infrastructure is that the both the peak mortgage and securitisation industry associations, namely the Mortgage & Finance Association of Australia (MFAA) and the Australian Securitisation Forum (ASF), have been extremely vocal in their support for it (or an identical model). Many other leading industry participants, such as David Liddy, the CEO of the Bank of Queensland, and John Symond, the Chairman and CEO of Aussie Home Loans, have been exceedingly forthright in lending support to the AussieMac idea. Part II of our submission provides a more thorough review of the public responses for and against our AussieMac proposal.

One of the reasons that the RBA's actions do not resolve any of the competitive issues that we have identified is that the RBA's primary objective is 'system stability.' Consequently, its interventions are designed to mitigate any risks to the core financial system in the short term by dealing with Australian Deposit-Taking Institutions (ADIs) exclusively and leaving the task of putting liquidity through the system to them. The RBA, quite rightly, does not have a policy objective to promote or support any part of the system for its own sake nor to enhance the structure of competition in our financial sector (even despite the obvious benefits to borrowers from this). The privileged status of ADIs in the repo market does arguably give them a competitive advantage although the RBA does place conditions that mitigate this. In addition, non-bank lenders could apply to become ADIs or acquire one if they wanted to access this type of short-term emergency support.

In contrast, a government-sponsored enterprise, such as AussieMac, would have both an on-going and emergency response role. It could be given objectives to target housing affordability – as indeed similar organisations do in the US and Canada. And it could also play a key role in assuring the preservation of competition in Australia's home loan market against short-term liquidity shocks. This is a very distinct mandate from the RBA or the Treasury and one that we argue an independent agency can achieve in a more efficient and transparent manner than these organisations. Indeed, **an AussieMac-like institution could supply important new liquidity to the government bond market, which is a clearly recognised policy problem in and of itself, and/or create an entirely new market in the form of government guaranteed mortgage-backed securities such as the Canada Mortgage Bonds issued by the CMHC in Canada. These new securities could in turn serve as an alternative surrogate for the government bond market for both retail and wholesale investors.**

It has to be remembered that the public good characteristics of market liquidity are driven by the fact that there are times when the market cannot distinguish good securities from bad. By providing a basis for which there is always a minimum supply of good securities, one assures that market of the average quality of all traded securities. A government supported infrastructure of this kind prevents crises such as the current one from getting out of hand, which is especially important where such crises originate from international causes that have no basis in Australia.

How 'AussieMac' would work

Under our proposal, the Australian Government would guarantee the creditworthiness of an Australian Government-owned agency, which we loosely call AussieMac, thereby lending it Australia's AAA credit rating. To the extent that there is an immediate need for a liquidity injection into the mortgage market, one short-term candidate for this role would be the Treasury's Australian Office of Financial Management. With the Commonwealth's credit rating, AussieMac would be able to issue substantial volumes of very low-cost bonds into the domestic and international capital markets. The funds raised by AussieMac through issuing these bonds could be used to acquire high-quality AAA-rated Australian home loans off the balance-sheets of lenders. It is critical to note here that AussieMac would not be able to fund low-quality or 'sub-prime' loans: lenders would have to satisfy AussieMac's strict, pre-determined credit criteria before their loans would be eligible for acquisition. By imposing these credit standards, AussieMac should mitigate any 'moral hazard' risks.

Acting as a lender of last resort, AussieMac would serve to guarantee the public goods of liquidity and price discovery in the Australian home loan market in the event that other private sources of capital were to supply insufficient funding, such as is currently the case. Its presence need not, however, significantly disintermediate private-sector activity as is sometimes alleged. It would, for instance, be straightforward to place constraints on the volume of liquidity that AussieMac can supply during the ordinary course of market operations (say 10% of total market liquidity). These constraints would be relaxed only during times of extreme illiquidity, or total market failure, when AussieMac would be able to step into the breach and act to normalise demand and supply. Historically, similar initiatives in the US, with the now privatised GSEs, Fannie Mae and Freddie Mac, and in Canada, with the government-owned CMHC, were created with precisely the same mandate that we have in mind.

AussieMac's liquidity guarantee would restore deep competition in the Australian mortgage industry and enable lenders that originate high credit quality home loans to always access a readily available source of finance. In this way, the establishment of an AussieMac-like agency would help to resolve the illiquidity currently evidenced in the primary RMBS market and insulate Australian households and the financial system at large from 'exogenous' global shocks that have nothing to do with the integrity of the Australian economy.

The funding advantages afforded to AussieMac should ensure that it is a profitable going concern that does not require any meaningful public subsidies. This is certainly the case with the CMHC in Canada and Freddie Mac and Fannie Mae in the US, which do not draw on any government funding to support their securitisation activities.

What is at Stake

The sources of the supply of funding for home mortgages have, for the time being, been reduced from two (deposits and securitisation) to one. The consequences of this have been:

- A dramatic increase in home mortgage funding costs, which has in turn resulted in lenders being forced to pass on to borrowers interest rate increases (2-3 thus far) over and above RBA changes to the official cash rate (refer to Part II and the appended paper for more detail);
- A striking reduction in competition in Australia's home mortgage market with a spate of withdrawals and severe credit rationing by those smaller banks, building societies and non-bank lenders that can no longer compete with the Big-5 Banks;
- A huge rise in the new home loan market share of the Big-5 (and perhaps soon to be Big-4) Banks from 75% prior to the sub-prime crisis to around 90% today;

- Growing evidence of rationing of credit to both corporates and small businesses as the major banks re-allocate their capital away from the more expensive 100% risk-weighted corporate and SME markets to the much more lucrative 35-50% risk-weighted residential mortgage lending area; and

- Other unforeseen consequences, such as the complete disappearance of up to 25% of the 'reverse mortgage' market which is the only source of 'equity release' finance available to aged households that are asset-rich yet income-poor.

This supply shock as well as its asymmetric impact on deposit and non-deposit taking institutions has the potential to permanently reverse the competitive gains in retail credit markets achieved over the last 20 years. As a consequence, should the RBA move to lower interest rates to stimulate economic activity, it is possible that retail interest rates will not immediately follow that downward pressure. The efficient conduct of monetary policy could be weakened as a result.

While the solutions to this situation are several-fold, here we argue that Australia lacks a committed, transparent and long-term response. It is to address this that we have proposed 'AussieMac' – a government-sponsored enterprise based on successful models in our peer economies. AussieMac would be a low cost method of providing a minimum level of liquidity to Australia's home loan market while also supplying the foundations for a vigorous level of competition amongst lenders. With careful design, AussieMac should not serve to disintermediate any meaningful private sector competition. It is simply the government infrastructure that guarantees that competing participants will have access to a minimum supply of funding in the event that there is a major financial shock that would otherwise eviscerate available liquidity (ie, as we are seeing today). Precisely the same infrastructure exists for ADIs via the central banking system—with the evolution in capital markets over time, and the emergence of securitised funding in particular, it is time for the Commonwealth to put in place new protections that accommodate these innovations.

It is critical to note here that the policy rationale for AussieMac is not simply motivated to mitigate the current financial crisis (our opportunity to prevent that has passed and we must, for the time being, rely on the RBA and other interventions for relief). On the contrary it has been conceived to ensure that we can more effectively protect Australia from future financial crises, which will inevitably materialise, and to restore a vigorous level of bank, building society and non-bank competition to the retail lending market.

Post-Publication 'AussieMac' Media Coverage

Based on a Dow Jones Factiva search, we provide a select list of the media outlets that have covered our AussieMac proposal since the original publication of the paper on the 26th of March 2008. Please note that a more detailed analysis of the post-publication coverage is contained in our 'Postscript' on AussieMac in Part II of this submission. Part II also provides a thorough review of the state of liquidity in the RMBS market and the current competitive dynamics in the Australian home loan industry.

1. Australian Mortgage Agency Gets Support, *The Wall Street Journal*, 18 June 2008

2. Australia Senate Gives Fresh Life To AussieMac, *Dow Jones International News*, 16:49, 17 June 2008

3. Australia Senate Recommends Examination Of AussieMac, *Dow Jones International News*, 08:41, 17 June 2008

4. Call to open up home lending, *Australian Financial Review*, 6 June 2008, Adrian Rollins

5. Reality check: liquidity crisis shows funds are no protection from market bubbles, *The Australian*, 31 May 2008, Alan Wood, Economics Editor

6. Hey big lender, *The Sydney Morning Herald*, 31 May 2008, 2016 words, Stuart Washington and Clancy Yeates

7. Not all government intervention is bad; mortgage market intervention is due, *The Age*, 13 May 2008, Nicholas Gruen - Nicholas Gruen is chief executive of Lateral Economics

8. Preserving liquidity a valuable option in mortgage market, *The Sheet* News Bites, 6 May 2008, Nicholas Gruen

9. AussieMac no answer to diminishing Australian RMBS market - S&P, AFX International Focus, 17:53, 9 May 2008

10. Call for intervention to protect households and provide cheaper loans isn't warranted, *The Australian*, 3 May 2008, Alan Wood

11. Banks back with interest, *BRW*, 1 May 2008, Jane Searle

12. Mortgage finance might be fixed by 2020, *The Sheet* News Bites, 21 April 2008,

13. New mortgage securitisation model proposed, *The Sheet* News Bites, 10 April 2008,

14. The choking gun, *BRW*, 10 April 2008, David James

15. Lenders push guarantor plan, *Australian Financial Review*, 10 April 2008, Brendan Swift

16. Bk Of Queensland CEO Strongly Supports AussieMac Agency Idea, *Dow Jones International News*, 12:18, 10 April 2008,

17. Facilitating the blooming of liquidity, *The Age*, 10 April 2008, Christopher Joye and Joshua Gans

18. Pressure Builds For Australian Mtge Guarantee Agency, *Dow Jones International News*, 15:58, 9 April 2008, By Sam Holmes

19. Australia Securitization Chief Backs Agency Idea, *Dow Jones International News*, 18:04, 7 April 2008,

20. Australian Securitization Forum Calls For Canadian RMBS Model, *Dow Jones International News*, 16:07, 4 April 2008, By Sam Holmes

21. Federal Government action needed to resolve credit crisis, *North Shore Times*, 4 April 2008

22. Beyond the RMBS grave, Stephen Bartholomeusz, *Businessspectator.com.au*

23. Should government bail out credit lending casualties? *Crikey*, 13:54, 28 March 2008, Glenn Dyer

24. AAA fix called for in mortgage market, *The Sheet* News Bites, 27 March 2008

25. Call to support mortgage lenders, *The Australian*, 27 March 2008, David Uren, Economics correspondent

26. Home loans need an AussieMac, *Australian Financial Review*, 27 March 2008, Joshua Gans and Christopher Joye

27. Canberra urged to use its credit rating to ease crisis, *The Age*, 27 March 2008, Nassim Khadem, Economics Correspondent, Canberra

28. Study Calls For Australia Govt To Establish Mortgage Agency, *Dow Jones International News*, 15:16, 26 March 2008

Part II: Post-Publication Review

A Review of the Public Response to AussieMac and Current Capital Market and Mortgage Competition Dynamics

Executive Summary

The purpose of this postscript is to review the many responses to our AussieMac proposal since we first published the original paper on the 26th of March, 2008. As we shall see, our study triggered a significant amount of industry comment, media attention and, more recently, government inquiry—indeed, much more than we initially anticipated.

In particular, strong support has come from the peak mortgage and securitisation industry bodies, the Mortgage & Finance Association of Australia (MFAA) and the Australian Securitisation Forum (ASF), which have been very forthright in endorsing the baseline model we originally outlined. The ASF has since brought forward some more detailed proposals. In the public arena, our proposal was one of the key economic ideas highlighted by the first 2020 Summit report, while more recently the Senate Select Committee on Housing Affordability in Australia has explicitly recommended that the Treasury examine whether an AussieMac initiative would be beneficial to the Australian market and help increase the rate of home ownership. Public sector interest has come to a head with the establishment of the House of Representatives Economics Committee's "Inquiry into competition in the banking and non–banking sectors," which is obviously one of the key issues that AussieMac was devised to address.

In our initial paper we identified a range of capital market and mortgage competition dynamics that we felt were causes for serious policy concern, and were issues that the introduction of AussieMac could potentially help to alleviate. Given the time that has elapsed since the original publication of the paper, it is worthwhile reviewing whether these problems continue to persist. We have, therefore, divided this postscript up into two key sections: (1) Public Reactions to the AussieMac Proposal; and (2) Current Capital Market and Mortgage Competition Dynamics.

We document that the public response to our AussieMac proposal has been surprisingly positive. We are encouraged by this as policy innovations of this kind can be very polarising. In particular, there has been particularly strong support from major mortgage industry participants, peak industry bodies (such as the MFAA and the ASF), and government initiatives, such as the 2020 Summit and the Senate Select Committee on affordability.

We conclude that the inability to securitise very high quality, low risk Australian home loans on economically viable terms has continued to bring about the striking demise of the non-bank lending sector and placed significant pressure on smaller banks and building societies (with a number of additional withdrawals from the market and indications of ongoing credit rationing). The bottom line is that the primary mortgage-backed securities market remains extremely illiquid, as it was when we first published our proposal, and is not currently an economically viable source of funding for any party. This has in turn resulted in a sustained increase in the home loan market power of the Big-5 Banks to the detriment of competition and consumer choice. To quote Martin North, the Managing Director of the industry advisor, Fujitsu Consulting:

> There has been a massive increase in concentration in the Australian mortgage market with the share of new owner-occupied home loans captured by the Big-5 banks rising to around 90% from their historical pre sub-prime level of circa 75%. Concentration has continued to rise since the original publication of your 'AussieMac' report as non-bank lenders fall by the wayside and the smaller banks that were reliant on securitisation struggle to find funding. 12 June 2008

There have also been other unforeseen consequences. For example, participants representing more than 23% of the entire 'reverse mortgage' market[4] have, due to their inability to access funding, been forced to withdraw from supplying this important form of finance to asset-rich yet income-poor retirees. As we predicted in our original paper, there has also been growing evidence of credit rationing in the SME and corporate debt markets as the major banks re-allocate scarce capital from this more expensive, 100% risk-weighted area to the much more lucrative, 35% risk-weighted residential mortgage market (ie, as they pick up slack from the smaller banks, building societies and non-bank lenders that are either rationing credit or have shut-up shop altogether).

It remains our contention that many of these problems could have been largely mitigated had there been a government-owned agency, such as AussieMac, that could have intervened and supplied liquidity to the primary securitisation market during this credit crisis, which has been imposed upon the Australian financial system despite its inherent strength. Indeed, the health of the Australian economy is such that we have one of the few central banks in the world that has been increasing interest rates throughout the global credit crunch. The RBA itself has noted that the (seemingly irrational) illiquidity in mortgage securitisation markets, which the introduction of AussieMac could have at least partially offset, does not reflect

> ... concerns about losses on Australian RMBS. Investors in rated tranches in Australia have never suffered any loss of principal – any losses on the underlying loans after the sale of the property have been covered by lenders' mortgage insurance, the profits of the securitisation vehicles, and to a lesser extent unrated tranches... With most commentators expecting little securitisation this year, the share of lending funded directly through capital markets is likely to fall further.[5]

The intrinsic strength of Australia's housing finance market is borne out in the latest mortgage default rates. Even after 8 official and 2 non-official interest rate rises since March 2005, 30 day default rates on prime Australian home loans remain low at just 1.04% of all loans outstanding as at February 2008.[6] As we noted in Part I, the RBA's attempts to provide liquidity to lenders that cannot securitise their home loans has only exacerbated the competition concerns that motivate AussieMac since only banks and building societies can, in practice, avail themselves of the RBA's liquidity facilities. (Even for these institutions, the RBA's liquidity services represent an imperfect solution.) Non-bank lenders have never sought relief through the RBA's 'repurchase agreements' because the restrictions the RBA enforces make it next to impossible for them to do so while also largely undermining the value of the liquidity in the first place.

In short, we remain convinced that government has an important role to play in guaranteeing the public goods of a minimum level of liquidity and price discovery when key economic markets collapse, as evidenced by the actions of central banks and GSEs (eg, the CMHC in Canada and Fannie Mae and Freddie Mac in the US) around the world since the emergence of the US sub-prime crisis. Regrettably, Australia does not currently have the institutions in place that would have otherwise protected the local households, companies and institutional lenders that have suffered from a financial malaise that clearly originated beyond our shores. A legacy infrastructure certainly exits in the form of the central banking system, which was devised to protect deposit-taking institutions. However, this infrastructure has not evolved to accommodate the dramatic changes in the sources of funding over the last 15 years for our $250 billion per annum housing finance system. A new solution is required.

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[4] Based on Datamonitor and Deloitte statistics.

[5] RBA Statement on Monetary Policy, May 2008.

[6] Based on S&P 30 days scheduled balance arrears data.

Public Reactions to the AussieMac Proposal

Following Melbourne Business School's publication of our AussieMac paper there have, thus far, been around 30-plus references to the proposal in the mainstream published media, including at least 6 'op-eds' on the subject.[7] There has also been a great deal of online debate.[8] Prior to the establishment of the House of Representatives Economics Committee's "Inquiry into competition in the banking and non–banking sectors", perhaps three of the most significant responses were from the Australian Securitisation Forum (ASF), the Federal Government's 2020 Summit and the Senate Select Committee on Housing Affordability in Australia.

On the 9th of April 2008, the ASF, which is the peak industry body representing the securitisation market (including all major Australian lenders, ratings agencies, and investment banks) came out very strongly in support of our AussieMac recommendations. In particular, the ASF called on the Federal Government to establish precisely the same institution that we advocated: namely, a government-owned agency—based on the Canadian CMHC model—to inject liquidity into the primary RMBS market. We obviously reviewed the CMHC model in detail in our original paper and argued that AussieMac should, at least initially, be a government-owned entity like the CMHC rather than a private agency along the lines of Fannie Mae and Freddie Mac (this distinction was not always understood). At the time of the ASF's announcement, a banking industry journal, *The Sheet*, reported:

> The Australian Securitisation Forum released a discussion paper yesterday recommending that the Australian government set up a body to issue government guaranteed mortgage bonds. The ASF argues that government needs to get involved in the mortgage industry to restore liquidity to the securitisation market and maintain diversity and efficient pricing in the mortgage market…The ASF's paper is the second report in as many weeks urging government to take steps to restore liquidity to the securitisation market. A policy proposal written by Melbourne University Business School professor Joshua Gans and Rismark managing director Christopher Joye argues for similar action. The Gans and Joye paper advocates an entity modelled generally on CMHC as well as the government sponsored institutions in the US, Fannie Mae and Freddie Mac. The Sheet, 9 April 2008

On the same day, Dow Jones also reported that:

> Pressure is building on the Australian government to create an agency that would guarantee mortgage-backed securities and resurrect a lifeless securitization market. Greg Medcraft, executive director of the Australian Securitization Forum, Wednesday urged the federal government to enhance the county's frozen residential mortgage-backed securities market through the creation of an agency similar to the Canadian Mortgage and Housing Corp…The calls follow a similar proposal last month by the University of Melbourne and Rismark, which Wednesday issued an updated version of their proposal. The university and Rismark advocate creation of an agency, dubbed "AussieMac", which would "leverage the Government's AAA-rating to issue low-cost bonds and acquire high quality mortgage-backed securities from Australian lenders just as Fannie Mae and Freddie Mac have done in the United States" and the CMHC in Canada. AussieMac could help provide additional liquidity to the Australian government bond market, "which is a major issue for the capital markets given that it has recently shrunk so much", according to the proposal. "Assuming that it remained a public agency - like the CMHC in Canada - AussieMac's bonds would be incredibly low risk, AAA-rated government debt," the report said. "The Canada Bonds that the CMHC issues serve exactly the same purpose in that market." Dow Jones, 9 April 2008

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[7] Published by: Alan Wood, the Economics Editor of The Australian; Dr Nicholas Gruen, CEO of Lateral Economics; Steven Grenville, the former Deputy Governor on the RBA; Professor Kevin Davis of Melbourne University; and two by Joshua Gans and Christopher Joye in the AFR and *The Age*.

[8] See http://larvatusprodeo.net/2008/03/27/aussiemac/ and http://economics.com.au/index.php?s=aussiemac

The Federal Government's 2020 Summit's "Initial Report",[9] which was released on the 20th of April (ie, the final day of the Summit), described as one "interesting idea" the essential recommendation of our AussieMac proposal. This fact was noted in the media, with *The Sheet* commenting:

> Advocates of government assistance to foster mortgage funding lobbied well enough at the 2020 Summit in Canberra over the weekend for their idea to rate a mention in the preliminary report of the economics stream. "A government-guaranteed program to create securities from prime mortgages (similar to that in Canada), to ensure a relatively low-cost and stable source of financing for housing" was the final dot point in the brief report on this section of the summit... Joshua Gans, co-author of a complementary proposal and from the Melbourne Business School was also at the summit but in the education stream.

On the 30th of April, the *Australian Financial Review* reported that:

> Banks and other lenders have held meetings with Treasury in Canberra to discuss a proposal for a government-backed mortgage agency. The creation of the scheme was in the communiqué of the economics group at Prime Minister Kevin Rudd's recent 2020 Summit…The closure of securitization markets and higher funding costs have forced Macquarie Group to stop selling new mortgage. *Australian Financial Review*, 30 April 2008

All of this momentum came to a climactic head on the 5th of June 2008, with the announcement that the House of Representatives Economics Committee had established an "Inquiry into competition in the banking and non–banking sectors…with a particular focus on home mortgage products." The following day, the *Australian Financial Review* reported the announcement in two separate articles:

> The federal government is facing renewed pressure to support competition from non-bank lenders in the mortgage market after an inquiry into the banking system was announced yesterday. Supporters of an AussieMac-style agency that would use the Commonwealth's AAA credit rating to issue low-cost bonds to help non-bank mortgage lenders access funds for home loans will lobby the parliamentary inquiry, which is expected to focus on competition in home lending. Page 3, *Australian Financial Review*, 6 June 2008

> The banking sector could face a regulatory shake-up amid concerns of deterioration in competition in the home loan market after the government launched a parliamentary inquiry yesterday into the industry. The broad-ranging House of Representatives Economics Committee inquiry, established at the request of Treasurer Wayne Swan…has been directed to make recommendations to enhance competition in the sector. The inquiry… is expected to spend much of its time looking at the impact of the global credit crisis, including the near-collapse of the market for local mortgage-securities. A sharp run-up in wholesale funding costs or even the closure of securitisation markets has seriously compromised the business models of non-banks, regional banks and mortgage brokers. Indeed, major banks…have acknowledged an increase in business due to the exit from the market of some players...Non-banks have been pushing for greater government involvement in debt markets to ensure strong support for bonds or securitized loans – a key source of funding for non-bank lenders. The freeze in global credit markets has cut funding to non-banks and reduced competition in the lending sector, according to the Mortgage and Finance Association of Australia. Page 61, *Australian Financial Review*, 6 June 2008

Finally, on the 16th of June 2008, the Senate Select Committee on Housing Affordability in Australia delivered its final report recommending that the Treasury examine the benefits of establishing AussieMac:

> 9.38 The creation of 'a public institution that can render liquidity' to the market for securitised mortgages was also proposed to the committee by Mr Joye.38 It is based on a similar institution in Canada, and bears some similarity to the longstanding 'Freddie Mac' and 'Fannie Mae' in the United States.

> 9.39 The suggestion was endorsed by John Symond, who was concerned that a drying up of liquidity in the securitised mortgage market risked a return to the situation before the 1990s when a handful of banks

[9] In the final 2020 Summit Report, the AussieMac proposal was distilled down in Idea number 2.11.1 to noting that action was required to "ensure that there is a fully effective housing finance market".

were almost the only providers of mortgage finance and the margins charged home buyers and investors were consequently considerably higher.

9.40 He elaborated:

> Christopher Joye's suggestion to copy the Canadian mortgage backed security model has a lot of merit. I would probably tend to believe that we need a government supported liquidity initiative. The Canadian model would have been explained to you but they have not been impacted by the global credit crunch. Homeowners in Canada still have affordable interest rates. They are not out of money. We may find that, if funds start to get rationed in this country, it will be a serious problem for everybody not just homeowners… I am fully supportive of a government supported liquidity initiative and I do hope that the government has a hard look at that.

9.41 The mortgage corporation was also supported by the Construction, Forestry, Mining and Energy Union, on the grounds that it would 'preserve competition in the home mortgage market (a critical element in any affordability solution)'.

Recommendation 9.2

9.43 The committee recommends that Treasury examine the international experience with a securitised mortgage scheme and its application to Australia with a view to determining whether an 'Aussie Mac' style product would be beneficial in the Australian market.

Over and above these policy developments, there has been much public debate for and against our AussieMac proposal. We now attempt to survey the relevant evidence. In the 'affirmative' camp, considerable support has been found amongst many leading industry participants. A selection of their responses is enclosed below.

John Symond, Chairman and CEO of Aussie Home Loans:

> John Symonds from Aussie Home Loans…confirms that the US crisis has dramatically reduced cash flow for non-bank lenders which is reducing competition. Symonds states Aussie and Macquarie formed a partnership in 1994 which allowed them to be the first lender to offer securitisation, which led to lower interest rates. Symonds says a lot of this competition is now gone. Symonds thinks the proposal by the Melbourne University should really be looked at. Compere Michael Smith, 4BC Radio (Brisbane), 28 March 2008
>
> We now take the huge risk of there being very little competition to the banks and ultimately that could mean higher interest rates…The idea that the international banks will themselves provide enough competition for the big four banks isn't quite right. Credit markets are closed down tight for anything to do with mortgages…These banks are fighting to make sure that they can survive this vicious credit crunch and the last thing they want to do is use their actual balance sheet to fund the 20 or 30 year housing loan at a margin of 100 basis points. Its time that we saw some form of intervention to make these markets liquid again. John Symond, Chairman and CEO of Aussie Homeloans, *Australian Broker Magazine*, May 2008

David Liddy, CEO of Bank of Queensland:

> Bank of Queensland Chief Executive David Liddy said Thursday he strongly supports the idea of the Australian government creating an agency that would guarantee residential mortgage-backed securities. Liddy told Dow Jones Newswires that he has written to Australian Treasurer Wayne Swan urging him to consider the establishment of such an agency. "There is a huge opportunity for the Australian government to use its AAA rating and get bonds issued in the market place," Liddy said "That will certainly be useful from a funding point of view, and an investors' point of view, in the Australian market," he said. "I totally support it…Last month, the University of Melbourne and Rismark International called for the creation of an agency, dubbed "AussieMac", which would "leverage the Government's AAA-rating to issue low-cost bonds and acquire high quality mortgage-backed securities from Australian lenders just as Fannie Mae and Freddie Mac have done in the United States" and the CMHC in Canada. *Dow Jones Newswires*, 10 April 2008

Phil Naylor, CEO of the Mortgage & Finance Association of Australia (MFAA):

> The MFAA has joined the growing voices calling for the government to step in and tackle the current mortgage funding crisis. In its submission to the Senate Select Committee into Housing Affordability, the MFAA called for action to ensure competition in the home lending market. This followed a spate of lenders winding back their wholesale funding arms, most notably Macquarie Bank, ANZ Origin, Bluestone and Mobius. The MFAA has thrown its support behind a report co-authored by MBS Professor Joshua Gans and Rismark International CEO Christopher Joye calling for the establishment of a government sponsored enterprise (GSE) - 'AussieMac' - to restore competition in the industry. Phil Naylor, CEO of the MFAA, said: "While securing a competitive home-loan market is not a silver bullet, it will play an important role in making home financing more affordable for consumers. He pointed particularly to the impact being felt by non-bank lenders, which do not have access to deposits and rely on the global markets and securitisation for their loan funding. "If non bank lenders are squeezed out of the market because of lack of access to funds, we will likely see a 'back to the future' scenario with banks dominating housing lending and interest rate margins creeping back to pre 1990 levels," Naylor said. In order to sustain competition in the Australian mortgage market, Naylor said Australia needed a mechanism to provide access to securitised funds. *Mortgage Professional Australia*, 3 June 2008

Alistair Jeffery, Executive Chairman, Bluestone Mortgages:

> [If I was the RBA governor] I'd consider establishing a government-sponsored agency similar to Freddie Mac and Fannie Mae... to improve the liquidity of mortgages and mortgage backed securities. *Australian Broker Magazine*, May 2008

Dr Nicholas Gruen, CEO of Lateral Economics:

> While I support the RBA in its move "beyond the normal scope of operations" to shore up liquidity in financial markets, we should be thinking about this subject more deeply. The RBA's limited preparedness to lend against residential mortgage-backed securities helps protect the liquidity of the banking system, but at the cost of competitive neutrality…Current RBA practice takes care of the short-term problem of liquidity for banks, but exacerbates the long-term damage the collapse of primary securitisation markets is causing to the competitiveness of the home loan sector and beyond."
>
> "The "Aussie Mac" proposal of Christopher Joye and Joshua Gans involves extending this government function in the way that Fannie Mae has in the US since 1938, and the Canada Mortgage and Housing Corporation has since it first helped returned soldiers into homes in 1948. "Aussie Mac" would involve the Government doing what the RBA is now doing for banks — effectively guaranteeing high-quality mortgages — but on a larger scale and with competitive neutrality."
>
> "Naturally, as in the days of Adam Smith, any "intervention" is looked upon askance by some and slated by others as "government assistance". It is not. Government-guaranteed involvement in vouchsafing liquidity in the market should be seen as a trade in which the state agrees to bear a risk that those in the private sector have, by their withdrawal from the market, indicated they cannot or will not bear. The Government should charge an appropriate premium for its insurance, reflecting its unique position in the market as the least-cost bearer of such risk. Just as the RBA is charging banks a healthy margin for lending against their residential mortgages, so too should the Government charge a healthy premium for insuring residential mortgage securities during times of extreme dislocation. In addition to the Government expecting to come out ahead financially, we get a powerful, economy-wide benefit through the perseveration of liquidity in the financial markets. *The Age*, 13 May 2008

Anthony Wamsteker, CEO of Members Equity Bank:

> Mr Wamsteker said the bank supported calls for the government to set up an institution which would issue government bonds backed by high-quality, mortgage-backed securities. *Australian Financial Review*, 13 May 2008

On the flip side of this debate, there has also been argument against the need for an AussieMac-like institution. These claims tend to be based on issues addressed in the FAQ at the end of our paper, outright misconceptions, or, more simply, on the notion that there are not really any serious problems at hand and the government does not, therefore, have a role to play. Unsurprisingly, one of the major banks, NAB, has argued along these lines.

John Stewart, CEO of NAB:

> NAB CEO John Stewart does not believe there is a need for a government-backed mortgage agency. Mr Steward said that he had considered the proposal to establish a government-backed mortgage agency in Australia but “came to the conclusion it was not a particularly good idea.” If banks faced financial stress they were able to tap the RBA window, putting up a range of assets as security in return for funds. “With a bit of luck, things are going to improve in the future,” he said. “If that happens, the case [for a mortgage agency] is not as strong as before.” *Australian Financial Review*, 12 May 2008

We have two issues with Stewart’s argument. First, the RBA’s window does nothing to help non-ADIs (ie, non-banks), as we have repeatedly noted, who have suffered most as a result of the illiquidity in the primary RMBS market. As such, the competition issues to which we refer are not addressed by the RBA’s actions, as Stewart implies—indeed, there is a compelling case that the RBA’s actions, which unwittingly discriminate against non-ADIs, have exacerbated the central competition concerns by only serving to reinforce the power and liquidity of the major banks (see below for more detail).

The second point relates to the more general claim that has been made by some of the larger banks, and several government bureaucrats, that there are in fact no real competition issues here. The argument goes that consumers are well serviced by the Big-5 banks, and the (non-bank, regional bank and building society) business models that have been adversely affected by the liquidity crisis deserve to suffer the Darwinian economic consequences associated with their inability to cope with this exogenous shock. In truth, this point of view is most frequently offered up by bureaucrats whose only regulatory remit is the deposit-taking system and they are, therefore, inherently uninterested in anything that exists outside of that system.

At the same time as one is subject to this argument, one is confronted with a compelling counterfactual: one of the strongest rationales that is being used to justify the controversial merger between two of the Big-5 Banks, Westpac and St. George, is St. George’s purported inability to compete with the majors given the impact of the credit crisis. As an industry group, the big banks cannot argue, on the one hand, that everything is fine and competition is strong while simultaneously trying to persuade us that the 5th largest bank in Australia, St. George, which benefits from a deposit base, can no longer effectively compete with the 4 majors.[10] What does this then say about all the smaller regional banks, building societies, and non-bank lenders, who were even more heavily reliant on the securitisation markets and in many cases have no deposit base on which to lean? Indeed, in the context of the St. George and Westpac merger the rather bizarre point is being made that competition will in fact improve as a result of this combination. Applying that logic, Australia would not benefit from having any lenders outside of the 4 majors! To quote AAP on the day of the announcement:

> The move on St George comes at a time when banks…are coming under pressure from higher funding costs caused by the global credit crunch. Westpac said today that a combined entity would have a strong AA credit rating, a larger balance sheet and greater access to funding. "This would lower risk and costs for St George, and position the combined business to withstand challenging funding markets and take advantage of opportunities created by the dislocation in capital markets," Westpac said. AAP, 12 May 2008

A more direct critique of our AussieMac proposal came from the ratings agency Standard & Poor’s (S&P), which published a paper on the subject on the 1st of April 2008. The S&P paper has not been supported by the Australian securitisation industry’s peak body, the ASF (of which S&P is a member), or, we are informed, by any other ratings agencies. S&P’s analysis of our proposal contained a number of errors, misunderstandings and/or mischaracterisations. These are dealt with in more detail below.

[10] Since the onset of the credit crisis, St. George’s short-term funding costs, which used to be parri-passu with the majors, are reported to now be 15 basis points higher, while its one year financing is 25 basis points more expensive.

1. S&P open up by claiming that, "the [AussieMac] proposal is predicated on the closure of the primary market for Australian RMBS and the assumption that it will not return." They continue, "But to say that the market for RMBS is dead and will not return is a big call." S&P's claim that we alleged that the RMBS market is "dead and will never return", which serves as the foundation for the overall critique, is completely false. As any reader of our paper will see, the AussieMac idea was based on the observation that the primary RMBS market had been temporarily failed with potentially irreversible consequences for the composition and structure of the Australian mortgage market and, indeed, other industries (eg, business and SME lending). To say that we've claimed that the RMBS market is "dead" and would not return is, therefore, highly misleading. In fact, on page 9 of our paper, we note "Most experts expect very thin primary market liquidity to persist for another 6-12 months. When demand does eventually return, participants project that it will do so in limited form and on materially more expensive terms." S&P have, for one reason or another, created a 'straw-man': they are criticising a proposal and a set of assumptions that never existed. It should have been clear to S&P that our central argument was simply that markets irregularly fail, and are subject to severe liquidity shocks that are driven by seemingly nonrational sentiment and psychology. When markets do fail, such as has been the case with the Australian RMBS market, there are potentially catastrophic consequences. In order to prevent or mitigate these effects, many economists accept that there is a strong rationale for governments to occasionally intervene and provide participants with the public goods of 'liquidity' and 'price discovery'. The actions of central banks around the world, who are providing liquidity to the deposit-taking sector (and in the US non-banks), clearly validates this view. We now need to apply the same principles to the shadow banking market.

2. One tenuous argument S&P make for the return of the primary RMBS market is the fact that St George recently sold some asset-backed securities. While we believe that the primary RMBS market will eventually return (and perhaps quite soon), it will almost certainly do so with less depth and on materially inferior pricing terms, at which point the damage to the housing finance industry will already have been done. Recent evidence fully corroborates this claim insofar as the one or two small securitisations that have occurred have been executed on desperate pricing terms that cannot support the economic models of any bona fide lender. In this regard, the reader is referred to Footnote 30 of our original paper, which anticipated precisely this problem. More importantly, however, S&P forget in their analysis to tell us that the St George transaction was a securitisation of car-loan receivables! Since the global credit crunch has focused most intensively on the mortgage market, we fail to see how securitising a tranche of auto loans is directly related.

3. S&P spend several paragraphs explaining how the closure of the primary market "is hardly surprising… Investors can buy as much RMBS as they want in the secondary market at yields that have never been seen before. Investors would buy primary issues of RMBS if the yields offered matched those available in the secondary market but this is, of course, uneconomic for the mortgage originators." The reader is given the impression that this is something that we overlooked. On the contrary, we go to some lengths on page 10 of our paper to explain exactly this point: ie, that secondary market pricing of RMBS has, because of the surfeit of sellers, blown out to up to 10 times historical pricing at around 200 basis points above bank bills. In fact, S&P has repeated exactly the same point we made in our paper, namely: "With no current primary market demand for Australian RMBS…and typical secondary market pricing at late 100 basis points to early 200 basis points above bills (ie, up to 10 times higher than pre sub-prime pricing), one can see why primary liquidity has disappeared. Local institutions, such as super funds, are also much more likely to

acquire RMBS assets in the secondary market since the pricing offered is far cheaper than any primary issue. However, even the secondary market trading activity is highly illiquid."

4. S&P confidently claim that "there is a natural solution that will exert itself relatively quickly." This is based on the view that since RMBS has an amortization life of 3 years, and the weighted average life of secondary RMBS being sold in the market is even shorter, investors will have to eventually look for new RMBS to replace the old. However, this argument contains two issues: (a) if the weighted average life of secondary RMBS is, say, half of the primary life of 3 years, then there is still, say, a good 18 months of secondary assets still available. This then implies that the duration of the closure of the primary RMBS market, which has been effectively shut for 9 months now, could persist for at least another 9 months and possibly longer. The current market collapse has already had major consequences for competition in the mortgage market—the longer the market remains shut, the greater those consequences will become; and (b) the S&P argument presumes that liquidity will return in a manner that is sufficient to restore the primary RMBS market back to its previous form. There is, as yet, no indication of that: liquidity in the secondary market is still extremely thin, despite the extraordinarily cheap pricing available to investors, while the primary placements that have been executed to date have been priced on terms that are non-economic for most smaller lenders (refer to Footnote 30 in our paper).

5. Three other arguments S&P uses to critique our AussieMac proposal are as follows: (a) AussieMac will completely dominate the primary RMBS market and disintermediate private sector activity with adverse consequences; (b) By the time you establish AussieMac, the problem will likely have gone away; and (c) AussieMac is just a "'back to the future' solution, recalling predecessors to the development of the RMBS market such as Fanmac and National Mortgage Market Corporation." Point (a) is plainly wrong and a detailed response is contained in the FAQ enclosed in our paper. In short, we explicitly stated from the outset that it would be straightforward to place constraints on the volume of liquidity that AussieMac can supply during the ordinary course of market operations (say 10% of total market liquidity). These constraints could be relaxed only during times of extreme illiquidity, or total market failure, when AussieMac would be able to step into the breach and act to normalise demand and supply. The second and third criticisms are dealt with as follows:

    - Timing risks: The motivation for AussieMac is not just to solve the current credit crisis. On the contrary, it would be a permanent public infrastructure that could help protect against all future crises, just as we have a central banking system to protect the deposit-taking market. As in the past, we expect these irregular liquidity shocks to reappear in the future: as capital markets become increasingly well connected, and investor sentiment can be transmitted rapidly around the world, markets will at some point in the future fail again. At this time, there will once again be a need for governments to intervene and provide the public goods of price discovery and liquidity. We have a limited infrastructure of this kind in place for the ADI sector with the RBA, and our view is that it should be reinforced and extended to cover the non-banking market. If there is a pressing need to immediately implement AussieMac, it could be operationalised in the interim through the Treasury's Australian Office of Financial Management (AOFM), which is purpose-built for this type of activity;[11] and

[11] The Australian Office of Financial Management (AOFM) manages Australian Government debt and associated financial assets. The AOFM is a specialised agency within the Treasury portfolio, responsible for all operational aspects of Australian Government debt management, including financial and operational risk management, administration, and financial reporting. The AOFM is also responsible for management of the Australian Government's cash balance.

- Comparisons with FANMAC: We went to some lengths in our paper to highlight the fact that any comparison with FANMAC is entirely inappropriate. In this context, S&P's reference to FANMAC is quite bizarre. In Footnote 8, we commented:

> It is critical to note that our AussieMac proposal has nothing to do with the NSW Government mortgage financing agency, FANMAC, and the Government mortgage originator, HomeFund, which suffered significant difficulties in the early 1990s. These organisations ran into trouble because HomeFund was providing home loans to incredibly high risk borrowers who could not meet their repayments. One of the principal reasons for the problems was that HomeFund was misleading borrowers about the terms and conditions of their loans and aggressively targeting low-income or poorly-equipped households that could not service their repayments. For example, in 1993 Auditor General's report showed that 11% of HomeFund's unsubsidised borrowers and an amazing 35% of HomeFund's subsidized borrowers were in default, the latter of which more than twice as high as US sub-prime default rates. By way of contrast, average 30 day default rates on prime Australian home loans are just 0.84% according to S&P data. Importantly, it is categorically not proposed that AussieMac would be an originator of home loans, like HomeFund. Rather, the originators would be the mainstream private sector lenders that operate today. Even more importantly, AussieMac would only acquire high credit quality 'prime' mortgages sourced in accordance with its credit criteria just like the Canadian and US GSEs. Another issue with FANMAC and HomeFund was that their specially designed products involved steep increases in repayments made by borrowers after a certain period of time had elapsed much like the way the US adjustable rate mortgages that have caused so many problems work (ie, get a big reduction in repayments for a few years then get slammed by a huge increase down the road). As the NSW Ombudsmen said at the time, HomeFund was ill-considered, badly advised and poorly understood, even by the Government. Since inception, the overseas GSEs have generally had a hugely positive influence on the formation of the mortgage markets in the countries in question. One should not, therefore, extrapolate out from the sub-prime-like HomeFund experience.

A final criticism, levied by, for example, Professor Kevin Davis of Melbourne University, maintains that our AussieMac proposal "appears largely redundant" because the RBA's willingness to accept mortgages as collateral for the purposes of its repo facilities "achieves a similar effect" (for more detail on this refer to page 8 of our paper). In response to Professor Davis's article, which was published in the *Australian Financial Review*, we wrote the following letter:

> While the RBA is almost certainly our finest public institution, its repurchase (or repo) facilities do not achieve what Davis claims. The private sector cannot offload their homes loans on the RBA. The RBA categorically does not buy mortgage-backed securities and, based on our understanding, has no desire to do so. The RBA simply provides temporary lending facilities for usually no longer than six months [this has now been extended to 12 months, up from the RBA's original maximum window of 30 days prior to the sub-prime crisis]. The RBA will only lend 90 cents in the dollar against these home loans, giving rise to a significant funding gap. Non-bank lenders, cannot, in practice, avail themselves of this facility. This is because institutions cannot use their own securities as collateral[12]. That is, the RBA will not lend against the non-bank lenders' own home loans, as Davis suggests. Since these are the only assets non-bank lenders normally have, the RBA facility is of no use. The final point is that the RBA's liquidity facilities have done nothing to prevent the closure (since November 2007) of the $50 billion a year primary AAA securitisation market. They have done nothing to prevent the "new" home loan market share of the Big-5 Banks rising dramatically to nearly 90 percent. They have done nothing to prevent the effective withdrawal from the home loan market of key wholesale lenders like, Macquarie Bank, RAMs and ANZ's Origin. They have done nothing to prevent dramatic credit rationing by other smaller lenders like Adelaide Bank and Challenger. And, finally, they have not in any way prevented severe credit rationing taking place in the small business lending and corporate debt markets, as the big banks substitute away from this 100 percent risk-weighted sector to the much more profitable, 35 percent risk-weighted, home loan market. Christopher Joye, *Australian Financial Review*, 16 April 2008

Interestingly, Stephen Grenville, the former Deputy Governor of the RBA, published a fascinating op-ed on the subject of the credit crisis and the RBA's ability to assuage the primary RMBS market's illiquidity woes. In this

[12] And a bank is unlikely to take the institution's home loans and repo them with the RBA just to help that institution out, at least if history is any guide.

article he appeared to lend some support to our AussieMac proposal if conditions were to deteriorate to a level that warranted such intervention. More specifically:

> If the central banks address this problem by demanding substantial discounts [to the value of the mortgage assets], they are likely to be left with lemons, as those holding good assets won't want to sell them at a heavy discount. If central banks use repurchase agreements, or repos, rather than outright asset purchases, this doesn't do much for the general illiquidity in the mortgage asset market.
>
> If things get to the stage where this sort of measure is needed…it would best be done by the Freddie Mac and Fanny Mae-type institutions, which have the expertise to vet the assets, select the best, pay a sensible price, and fund this by issuing debt that is, by strong implication, government guaranteed. *Australian Financial Review*, 13 May 2008

Current Capital Market and Mortgage Competition Dynamics

When we published our AussieMac paper in late March 2008, we noted that this kind of initiative was motivated by the temporary collapse of the primary RMBS market and the important economic consequences associated with this failure: namely,

- a significant deterioration in mortgage market competition as lenders who were reliant on wholesale funding channels either withdrew from the market or rationed credit;
- a considerable increase in the market power of the Big-5 banks to the detriment of the smaller regional banks, building societies and non-bank lenders;
- an expected increase in the home loan margins of these lenders with the consequent cost borne by borrowers; and
- a relative contraction in the more expensive, 100% risk-weighted SME and corporate lending market as banks allocate their scarce capital resources towards the more lucrative, 35% risk-weighted residential mortgage lending market.

Given the (albeit brief) passage of time, it is worthwhile reflecting on whether any of these concerns have abated and market conditions normalised. More specifically, we pose the questions:

- have reasonable levels of liquidity returned to the primary RMBS market;
- if they have, has liquidity returned on terms that are capable of supporting the economic models of banks, building societies and non-bank lenders;
- is there any evidence of a continued concentration of market power amongst the major banks and a further demise in competition in the supply of housing finance; and
- have there been any other unforeseen economic consequences of the illiquidity in securitisation markets, which an AussieMac-like organisation could have addressed?

Liquidity in the Primary and Secondary RMBS Markets

After the advent of the US sub-prime crisis, the primary Australian RMBS market effectively closed in late 2007 with no new public issuance of AAA-rated home loans between November 2007 and March 2008. This was a profound economic shock to the many institutions that had partially or wholly predicated their lending models around a minimum level of liquidity in securitisation markets. In particular, there had been more than $47 billion per annum worth of AAA-rated prime Australian home loans that had been successfully securitised since 2002, which made Australia the 4th largest secondary mortgage market in the world.

Since the publication of our paper on the 26th of March 2008, liquidity in the primary RMBS market has remained insipid with only a few small issuances priced in May and June on what can only be described as distressed, and highly non-economic, terms.[13]

The most significant transaction to date has been Citigroup's securitisation of $500 million worth of very low risk home loans where the AAA-rated senior tranche of 'full documentation' assets priced at 145 basis points over the one month bank bills rate (ie, nearly 10 times what it would have cost Citigroup 12 months ago). The average loan-to-value ratio ("LVR") on the Citigroup offering was just 51.5% of the value of the property, or around 10 percentage points lower than market standards pre sub-prime. Yet as we explain in more detail below, the problem with this transaction is that the pricing currently available in the primary (ie, new issuance) RMBS market is completely non-economic, which is why there have been virtually no transactions executed to date. As Stephen Bartholomeusz of the *Business Spectator* comments:

> The detail of the issue…makes it difficult to declare that the markets have re-opened…While Citi has said the spread on the deal – the difference between the cost of the issue to Citi and the yield on the portfolio – was positive for the bank, other market participants are sceptical. They say the markets won't re-open properly at the levels of pricing demonstrated by the Citi and GMAC issues because issuers would lose money. *Business Spectator*, 21 May 2008

At the same time, secondary market pricing of AAA-rated Australian RMBS has, as we previously documented, blown out from the pre sub-prime level of less than 20 basis points over bank bills to, in some cases, up to or greater than 300 basis points over.[14] In its May 2008 Statement on Monetary Policy, the RBA observed:

> The volume of securitisation remains very low. There have been no public RMBS this year and only two private placements although there are a number of new issues in the pipeline. Secondary market spreads on RMBS rose sharply in early 2008, reportedly on forced selling of RMBS by distressed leveraged off-shore investors, mainly structured investment vehicles (SIVs, which bought around one-third of Australian RMBS prior to the credit crisis) and, to a lesser extent, foreign banks. While there has been little distressed selling in the past two months, spreads have remained elevated amidst very illiquid conditions. With few transactions observed, and wide bid-ask spreads, it is difficult to gauge current spreads. Most estimates suggest that spreads on AAA-rated prime RMBS are around 150–200 basis points. RBA Statement on Monetary Policy, May 2008

Importantly, the RBA echoes the arguments that we emphasised in our paper that the current market illiquidity and pricing dynamics appear to be removed from the underlying economic fundamentals:

> The elevated RMBS spreads reflect investor caution toward securitisation, and the general credit conditions, rather than concerns about losses on Australian RMBS. Investors in rated tranches in Australia have never suffered any loss of principal – any losses on the underlying loans after the sale of the property have been covered by lenders' mortgage insurance, the profits of the securitisation vehicles, and to a lesser extent unrated tranches. Although losses on prime loans increased in 2007, they are still extremely low as a share of loans outstanding at 4 basis points... With most commentators expecting little securitisation this year, the share of lending funded directly through capital markets is likely to fall further. RBA Statement on Monetary Policy, May 2008

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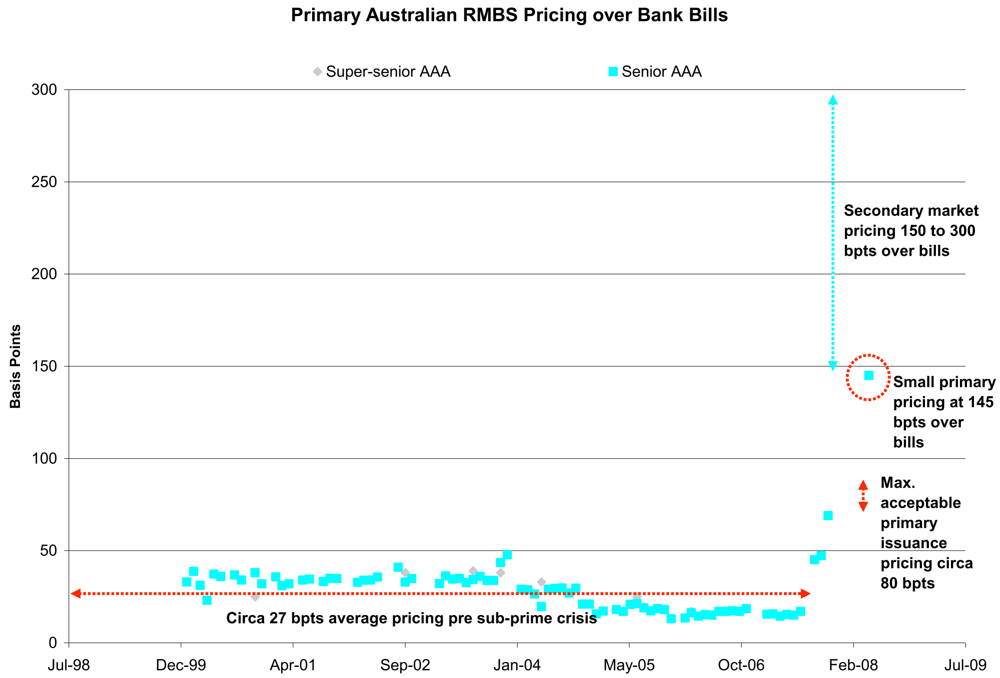
[13] In May 2008, Macquarie Bank priced a $270m low-doc tranche of loans at 180 basis points over bank bills, which was sold to 6 investors. GMAC was reported to have priced $150m worth of non-conforming mortgages at 300 basis points over one month bank bills (these apparently had no mortgage insurance).

[14] Henry Charpentier, Managing Director of Structured Finance at Moody's comments, "It's not unusual to see seasoned AAA-rated Australian securities at 200 or 250 basis points over bank bill swaps. That's difficult to match in the primary market." (Source: Forum Magazine, May 2008).

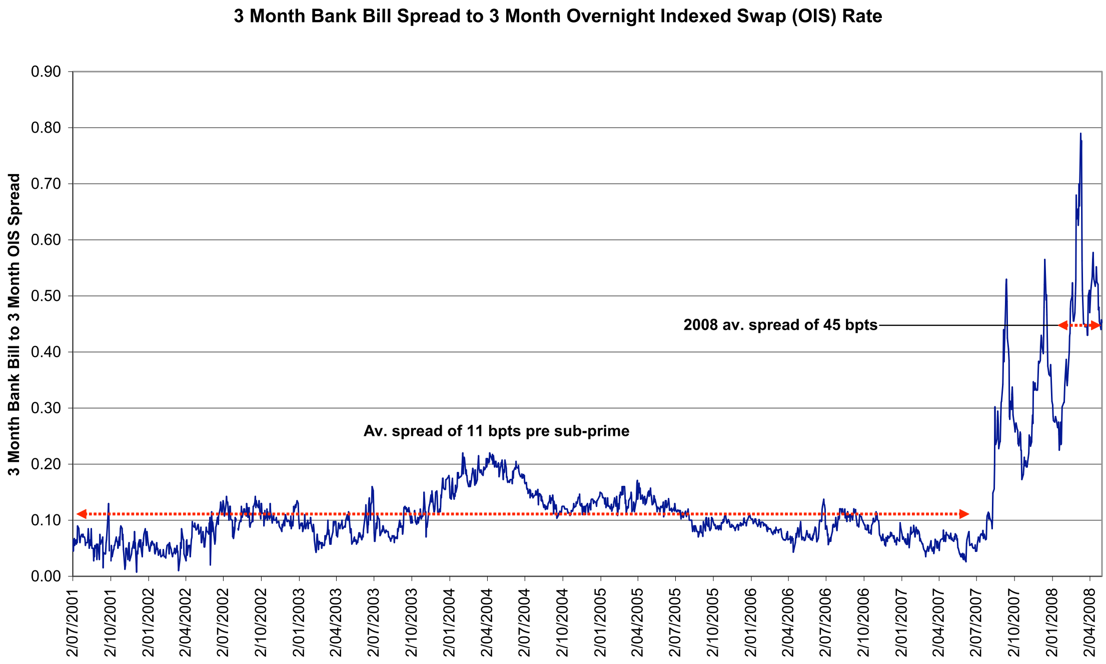
If one refers to the chart below, it can be seen that AAA tranches of Australian home loans have priced on average at around 27 basis points over bank bills since 1999 based on the available S&P data and very rarely more than 40 basis points over. Based on the analysis contained in Footnote 30 of our original paper, we estimate that the maximum acceptable break-even pricing is around 80 basis points over bills. This is confirmed by discussions with major lending participants.



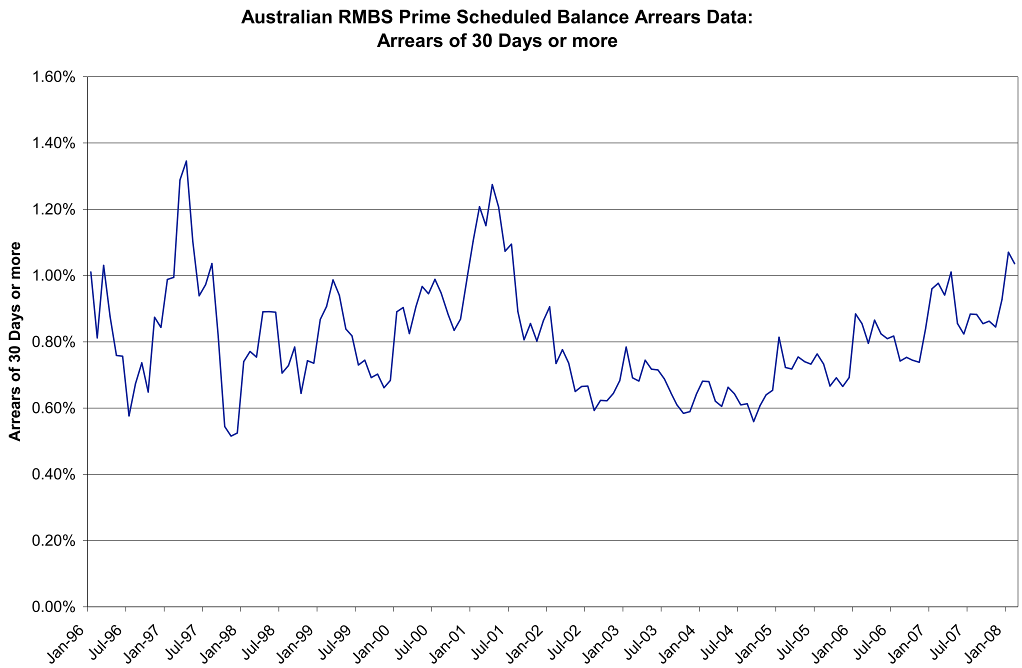
Source: RBA and market data

Accordingly, the overall freeze in the primary RMBS market, which has been ongoing for nearly 9 months now, remains in force. This has in turn seen the continued withdrawal of lenders who were heavily reliant on capital markets funding and/or a dramatic rationing of the volume of credit that they can provide (see the next 'competition' section for more detail).

The tension in credit markets has also been reflected in the spread between the RBA's target cash rate, known as the overnight indexed swap rate (OIS), and the pricing of bank bills, which is the benchmark rate for lenders. Prior to the advent of sub-prime, this spread was typically around 11 basis points. Since 2008, the spread has averaged 45 basis points (refer to chart below), which is one of the reasons why lenders have been compelled to pass on to borrowers 'de-facto' rate rises of up to 40 basis points over and above the RBA's changes to the cash rate. As we noted in our original paper, the RBA has widened—in October 2007—the types of collateral that it will accept for its repurchase agreements (or 'repo' facilities) to include AAA-rated RMBS and asset-backed commercial paper (ABCP) backed by prime home loans, and repeatedly lengthened the terms of its open market operations from around 30 days prior to the crisis to up to 12 months (on the basis of several transactions the RBA executed with banks in April 2008 involving RMBS).



And yet despite 8 rate hikes since March 2005, and 3 official rate increases and around 2 'de-facto' rate rises since November 2007, the fundamentals of the Australian mortgage market remain sound. For example, Australian prime 30-days or more scheduled balance mortgage default rates (ie, borrowers who have missed one month's repayment or more) remain—according to the latest S&P data—subdued at 1.04% in February 2008 (see chart below).



Source: Standard & Poor's

Another way of examining the level of underlying stress in the Australian mortgage market is to look at the performance of the two main mortgage insurers, PMI Mortgage Insurance and Genworth Financial. According to *The Sheet* the default rate on home loans insured by PMI in the March 2008 quarter was just 0.31% (up from a low-base of 0.25% 3 months prior). The total level of mortgage claims paid by PMI actually fell over the quarter, to $14.4 million from $14.9 million. Indeed, PMI recorded a net profit of US$30.5 million for the quarter, an increase of 69%. Genworth also reported strong results in the March 2008 quarter, stating "In Australia, earnings increased 11% from strong revenue growth and lower losses…The loss ratio declined both sequentially and year over year to 41%."In a May paper on 'mortgage stress', Genworth also commented, "Recent industry reports suggest an increasing number of Australians are suffering from so called 'mortgage stress,' however statistics from ... Genworth show it is not as widespread as has been suggested."

All of this data just reinforces the point that we made in our original paper that markets can temporarily fail for reasons that appear to be unrelated to their underlying economic fundamentals. We also noted that in today's highly interconnected capital markets, major financial dislocations are materialising with even greater speed and regularity as a result of the rapid transmission of behaviour biases that are sometimes implicit in the actions of investors (eg, the equities 'tech boom' and subsequent 'tech wreck' and the long boom and bust now associated with credit markets). Unfortunately, these episodes of market dislocation, which undermine traditional notions of investor rationality and so-called 'market efficiency', can persist for relatively prolonged periods of time. The key message for policymakers is that when markets do fail, there is a clear role for governments to intervene and supply participants with the 'public goods' of a minimum level of liquidity and price discovery. These protections exist for the banking sector and it is time we extended them to the non-bank market.

Competition in the Bank and Non-Bank Markets

The competitive dynamics unleashed in the Australian home loan market by the US sub-prime crisis and the illiquidity in securitisation markets has continued with force since the publication of our paper in March 2008. Martin North, the Managing Director of the leading industry advisor, Fujitsu Consulting, summarises the situation as follows:

> There has been a massive increase in concentration in the Australian mortgage market with the share of new owner-occupied home loans captured by the Big-5 banks rising to around 90% from their historical pre sub-prime level of circa 75%. Concentration has continued to rise since the original publication of your 'AussieMac' report as non-bank lenders fall by the wayside and the smaller banks that were reliant on securitisation struggle to find funding. 12 June 2008

On the 1st of April 2008, the banking industry bible, *The Sheet*, reported that data from the RBA and APRA showed that banks had captured 100% of the growth in residential mortgage finance in 6 months to February 2008.

On the 3rd of April *The Sheet* announced that "Two more mortgage funders are calling it a day, pulling their products from the market, lifting margins on the back-book and putting their businesses into run-off…[ANZ'S] Origin and Maxis [a subsidiary of Members Equity Bank] are the latest exits, or near enough, from the sector."

On the 9th of May 2008 *The Sheet* reported that the major banks were tightening their grip on the mortgage market with Ian Caufield, the CEO of BankWest, predicting that margins would increase in coming months: "I think there's been a fundamental restructure in pricing and the availability of funding…Even when the funding market opens back up again, it won't go back to where it was."

The Sheet also reported John Symond, the Chairman and CEO of Aussie Home Loans, opining on the issue of reduced competition in the mortgage market:

> "We're finding that competition from the non-bank sector is non-existent. People are now totally reliant on the banks to use their (the banks) money to finance home loans." Symond predicted the big retail banks would continue to increase home lending rates far above the Reserve Bank's cash rate. "There's a significant risk to the public and businesses," he said. "There's no doubt that interest rates would rise beyond what they are now." *The Sheet*, 9 May 2008

On the 14th of May Virgin Money effectively stopped lending, posting a notice on its website stating:

> The cost of money is currently so high that we're unable to bring you the great value home loan we're synonymous with. So it makes sense for everyone if we hit the pause button for a bit on our home loan and focus on helping people find a good deal. *The Sheet*, 14 May

Virgin sourced its mortgage funding from Macquarie Bank, which has also stopped offering home loans direct and withdrawn funding from many of its third-party relationships. *The Sheet* reported that since August last year Macquarie had increased its standard variable rate loan by 1.94% or 94 basis points more than the official change in the RBA-set cash rate, making its loans entirely uncompetitive to those third-parties that still had access to its funding lines.

On the 28th of May 2008, GE Money announced that it would be seeking to divest Wizard Home Loans, which was one of Australia's largest non-bank lenders. Media reports have speculated that since the credit crisis emerged in mid 2007 Wizard has suffered a precipitous fall in new home loan growth and was no longer an attractive economic proposition for GE Money. The Sydney Morning Herald reported that Wizard's founder and current chairman, Mark Bouris, conceded funding pressures had played a role: "Nobody can say - not even banks - that there is no stress in the current environment, in terms of mortgages."

As we observed earlier, it is highly ironic given the negative statements made by one of the major banks about the need for an AussieMac-like institution that the chief commercial rationale offered by Westpac for its merger with St. George is the severity of the funding challenges faced by the latter and the claim that it can longer effectively compete with the 4 major banks.

On the 10th of June, Challenger Financial Services Group, which was one of Australia's larger wholesale lenders, announced that it had cut its home loan originations to 25% the level of its approvals over the past 2 years. Mike Tilley, Challenger's CEO, commented, "We aren't in a position to be out there aggressively competing…Because until we know securitization markets are going to reopen, that wouldn't be a very responsible thing to do."[15]

Finally, on the 19th of June, *The Sheet* reported that two more institutions, GMAC-RFC and Seiza Capital, had been forced to stop residential lending:

> It's hibernation for two more late entrants to the mortgage market in Australia, with one conducting a "strategic review" and the second aiming to wait out the deep freeze in the debt capital market for funders. Capital First [wholly owned by GMAC-RFC]… yesterday emailed brokers to inform them…"That from today, we have suspended accepting new loan applications effective at 10.30am."… Meanwhile Seiza Capital, just a week after scaling back its lending operations and laying off staff, has stopped lending altogether…The group has about $1.25 billion of assets on its books.

While the RMBS market remains a non-viable alternative as a source of third-party funding for home loans we expect the ability of non-banks, building societies and smaller banks to compete with the Big-5 majors to continue to deteriorate.

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[15] *Australian Financial Review*.

Recent Overseas Developments

In our paper, we examined in some detail the international precedents for AussieMac, which include the CMHC in Canada and Fannie Mae and Freddie Mac in the US. These organisations continue to play a critical role in alleviating funding pressures in their respective countries.

In March 2008 the CMHC successfully securitised C$11 billion worth of prime Canadian home loans at very reasonable 58 basis point spread to comparable government debt. In the same month, the US regulator of Fannie Mae and Freddie Mac, OFHEO, announced that it had relaxed Fannie and Freddie's capital requirements from 30% to 20%. The objective was to "help restart the housing engine that powers our economy", Fannie Mae CEO, Daniel Mudd, said.[16] Freddie Mac CEO, Richard Syron, added: "This is what the GSEs were put in place for, to deal with situations like this and we will deliver."

James. B. Lockart, the Director of the OFHEO, commented that these changes will allow Fannie and Freddie to add as much as US$200 billion worth of mortgage-backed securities to their portfolios: "This should serve as a major boost to the secondary mortgage market…The two companies have committed to raise significant capital and to maintain overall capital levels well in excess of requirements in order to ensure market confidence and fulfill their public mission."[17]

Combined with a lifting of portfolio caps on the 1st of March and the companies' existing capabilities, OFHEO claimed that this should allow Fannie and Freddie to buy or guarantee US$2 trillion in mortgages in 2008.

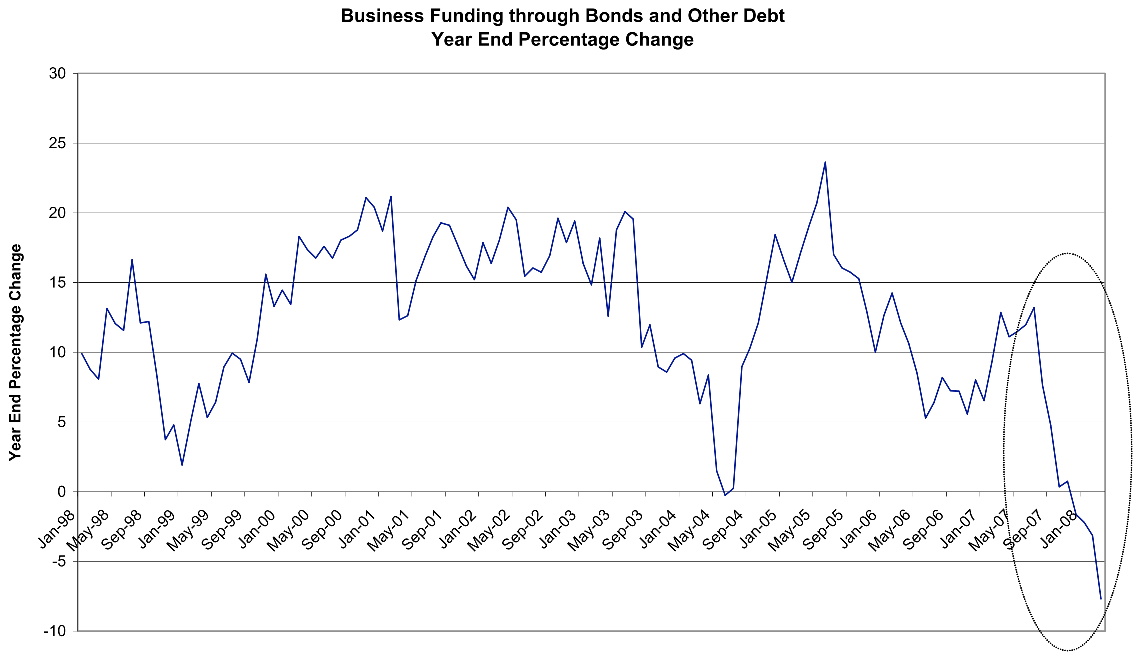
SME and Corporate Debt Lending

As we anticipated in our paper, there has also been evidence of credit rationing in the SME and corporate lending markets as major banks re-allocate capital away from the 100% risk-weighted business market to the more profitable, 35%-50% risk-weighted residential lending area.

On the 10th of June 2008, *The Sheet* reported that syndicated lending by Australian banks fell by around half during the March 2008 quarter (see chart below), "in one measure of the restricted availability of corporate credit since the global credit crunch emerged in mid 2007." With the illiquidity in corporate debt markets, the major banks have been 'reintermediating' in the same way that they have in the residential lending market.

[16] http://www.bloomberg.com/apps/news?pid=20601087&sid=agDH.j8olXRY&refer=home

[17] Forum Magazine, May 2008.



Source: RBA

Yet growth in business credit has also fallen with an increase of just 0.1% in April on a seasonally adjusted basis or by 7% on an annualised basis for the 3 months to April 2008, which is significantly less than the growth rate of 19% in the 12 months to April. In this context, The Sheet comments, "Soft growth in business credit tends to reinforce the talk of credit rationing from bankers so far this year…On the other hand demand for credit is supposed to be about to rocket if the ambitious (though recently poorly realised) capital expenditure plans of businesses are any guide."

In the May 2008 Statement on Monetary Policy, the RBA partially echoed these claims noting that, "Growth in business credit eased noticeably in February and March partly due to higher borrowing interest rates, but also reflecting some slowing in the pace of reintermediation [by the banks]."

Finally, in PWC's latest Private Business Barometer it concluded:

> …Just over half of the businesses surveyed nominated the availability of credit as a major impediment to meeting targets. According to the Barometer, private businesses are also planning fewer investments over the next 12 months…One third of the businesses surveyed said the global credit crunch had significantly increased the cost of borrowing. A further third said global credit tightening has prompted them to be much more conservative in their short term outlook…There was an overwhelming consensus that funding is the number one challenge facing private businesses…Investment to secure funding remained the top impediment to businesses raising capital. Businesses are increasingly concerned about the cost of debt due to rising debt costs and higher domestic interest rates…Close to 20 per cent of survey respondents also listed the cost of debt as a difficulty in securing capital, a jump of nearly six percentage points from October 2007…The cost of debt is a double edged sword. Securing debt is holding businesses back from growth and when they can secure it the cost is a significant impediment to growth. PWC Private Business Barometer, 27 May 2008

Other Unanticipated Consequences

There have been other unforeseen ramifications associated with the closure of credit markets for Australian lenders, such as several large institutions (eg, Macquarie Bank and Australian Seniors Finance) being forced to completely withdraw from the ostensibly unrelated ‘reverse mortgage’ market. Reverse mortgages are ‘equity release’ products targeted at retirees that provide one of the few available solutions for elderly asset-rich yet income-poor households. Based on Datamonitor estimates, Macquarie and Australian Seniors Finance directly accounted for more than 23% of the entire reverse mortgage market in Australia, with Macquarie’s share being higher since it also white-labelled products. This has now completely disappeared. Bluestone Group, another major reverse mortgage provider, also announced in May 2008 that it would stop offering reverse mortgage through 60% to 70% of its normal channels because of funding constraints.

Part III: The Initial AussieMac Report

Centre for Ideas and the Economy

'AussieMac'

A Policy Initiative for the Australian Government to Protect Households and the Financial System Against Current and Future Credit Crises

IdeaPITCH No.1

Authors: **Christopher R.E. Joye**[1] and **Joshua S. Gans**[2]

Date: 9th April, 2008 (First Version: 26th March, 2008)

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Executive Summary

There is a new global financial crisis emerging caused by the collapse of sub-prime lending in the United States. As with previous capital market dislocations, Australia has not been insulated from the instability. The 'primary' market for residential mortgage-backed securities in Australia has for all intents and purposes evaporated. The consequence of this is that smaller banks, building societies and non-bank lenders that used the process of securitisation to provide housing finance over the last decade have either severely rationed credit or withdrawn from the market altogether. As a result, the Big-5 banks have dramatically increased their share of the mortgage market, albeit at the cost of acute balance sheet pressures.

Australia needs a policy solution that will guarantee the provision of the 'public goods' of a minimum level of liquidity and price discovery in the mortgage-backed securities market during future financial crises. Failure to act with a systematic policy response will see the heightened competition that emerged in the mortgage market over the past 10 years significantly dissipate with a likely further casualty being the low home loan margins that households have enjoyed during this period. In such an environment, home owners and businesses may not receive the full benefit of attempts by the Reserve Bank of Australia to reduce interest rates.

We propose that the Commonwealth Government sponsor an enterprise – 'AussieMac' – that would leverage the Government's AAA-rating to issue low-cost bonds and acquire high-quality mortgage-backed securities from Australian lenders just as Fannie Mae and Freddie Mac have done in the United States (and the CMHC in Canada). AussieMac's role as a long-term liquidity provider would be especially important during periods of capital market failure when third-party funding for Australian home loans can disappear with potentially dire ramifications for the financial system. While this enterprise would have to be closely monitored and controlled, it would not constitute a significant near-term drain on public funds. Instead, it would restore stability and long-term confidence to both the primary and secondary mortgage markets in Australia and ensure that the vigorous level of competition that has characterised the housing finance industry will continue into the future.

About

The Melbourne Business School is one of the leading providers of management education in the Asia-Pacific. The Centre for Ideas and the Economy (or CITE) is a newly-created research centre residing within MBS. It is devoted to the creation and dissemination of academically evaluated, rigorous and practical policy ideas for application in the public and business spheres. This IdeaPITCH is one of a series of publications from the CITE. An IdeaPITCH is a vehicle by which academic researchers can place into the public domain policy ideas that have their genesis in academic research but have yet to be explored in broad detail. The purpose of an IdeaPITCH is to generate interest in such exploration by governments and others in the community. Comments are welcome on the proposal put forward in this report.

About the Authors

Christopher Joye is Managing Director of Rismark International, a quantitative research, investment and intellectual property development firm. He led the 2002-2003 Prime Minister's Ownership Task Force and was the lead author of its main report. In 2007, the Bulletin Magazine selected Christopher as one of Australia's "10 Smartest CEOs" while BRW included Christopher in its list of "Australia's Top 10 Innovators". Christopher previously worked with Goldman, Sachs & Co in London and Sydney and with the Reserve Bank of Australia. Christopher received Joint 1st Class Honours and the University Medal in Economics & Finance from the University of Sydney. He was a Commonwealth Trust Scholar at Cambridge University where he studied for a PhD.

Joshua Gans is a professor at Melbourne Business School in Australia. His research focuses on competition policy and innovation. He is the author of several textbooks and policy books, as well as numerous articles in economics journals. Gans received a Bachelor of Economics (Honours) and the University Medal from the University of Queensland before going to Stanford University to study for his Ph.D. in Economics. He graduated from Stanford in 1995 and moved to Melbourne Business School in 1996 as an Associate Professor and became a full Professor in 2000. In 2007, Gans received the inaugural young economist award from the Economic Society of Australia. This is an award given every two years to the best economist working in Australia, who is aged under 40.

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Disclaimer

Christopher Joye is Managing Director and Joshua Gans is an advisor to Rismark International, a provider of shared equity mortgages in Australia, amongst other things. While Rismark has an interest in the efficient operation of home lending markets in Australia, it does not fund through the RMBS securitisation markets; the focus of the policy proposals contained in this report.

The latest version of this paper will be available at www.mbs.edu/jgans

Introduction

The current global credit market crisis exemplifies the need for the Commonwealth Government to introduce an important policy innovation that would insulate Australian households, and the key financial institutions that provide them with funding, from external capital market shocks that have nothing to do with the integrity of the Australian economy, its financial system, or the quality of Australian home loans. This solution is motivated by the growing frequency with which extreme financial market dislocations appear to be occurring.[3]

As the world's economies become increasingly open and integrated, the impact of these seemingly unrelated circumstances[4] is transmitted through the global financial system with stunning speed and often carries unforeseen consequences. As the Treasurer, Wayne Swan, observed in Parliament, "The world has witnessed substantial financial market turbulence since it began in August last year, making its presence felt across markets, across nations, and across continents…The [Australian] residential mortgage backed securities market is no longer functioning in an effective way."[5] This fact has implications not only for the availability of funds for housing finance but also for the ability of small and medium enterprises to obtain credit – both for short- and long-term needs.

In this report, we argue that where these external shocks wreak unjustified havoc at home there is a role for government to prevent effective 'market failures' of the type that we are seeing in the primary residential mortgage-backed securities (RMBS) market today. In particular, we believe that when key economic markets irregularly collapse governments have a responsibility to supply the 'public goods' of a minimum level of liquidity and price discovery.[6] While governments are increasingly recognising that markets are not as efficient, and the investors that populate them not as rationale, as was once believed, to date interventions in Australia by the central bank have been limited to the banking sector. Non-bank lenders, who have clearly suffered the most from the closure of the primary securitisation markets, cannot, ironically enough, avail themselves of the central bank's liquidity services. Put differently, government is currently providing liquidity to the organisations least in need of it; ie, the banks. The market failure we identify is akin to the problems associated with 'bank runs', albeit applied to the 'shadow' banking sector. Bad decisions can, by virtue of a lack of transparency in certain overseas markets such as the US, translate into increased costs and a lack of liquidity elsewhere. This is precisely what we have seen in global debt markets over the last eight months.

These failures, however, light a path to potential solutions. Indeed, one solution that we propose here has the important quality of not requiring significant immediate outlays of government funds (and hence, no corresponding impact on the government's fiscal position). Instead, it proposes that the government use its strong standing in the credit markets to insulate the economy, and in particular, the state of competition in our lending markets, from extreme global financial dislocations.

Our contention is that the instability in international capital markets will almost certainly have long-term consequences for the cost, flexibility and availability of Australian credit in both the residential mortgage and small business lending sectors. The difficulties faced by Australian lenders trying to securitise AAA-rated home loans via the primary RMBS market, which has historically been the source of hundreds of billions of dollars of cost-effective "off balance-sheet" funding, has resulted in the withdrawal of major participants (eg, Macquarie Bank, RAMS and ANZ's Origin) and a dramatic reduction in the capacity of

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[3] For example, the 1987 stock market crash, the 1997 Asian crisis, Russia defaulting on its debt in 1998, the associated collapse of the hedge fund LTCM, and the equities 'tech wreck' of 2001.

[4] For example, what relevance do US sub-prime borrowers defaulting on their home loan repayments have for the Australian-listed company ABC Learning?

[5] Speech, 18th March, 2008. Swan further comments, "With financial institutions here and elsewhere unable to raise as much funds through securitisation, and uncertainty as to the extent of exposures to losses on these assets, they began to hold on to the cash they had. Banks here and elsewhere became more reluctant to lend to each other, except in the very short term."

[6] Bengt Holmstrom and Jean Tirole (1998), "Private and Public Supply of Liquidity," *Journal of Political Economy*, 106 (1), pp.1-40.

smaller providers to offer credit (eg, Adelaide Bank, Challenger, Credit Union Australia, Wizard, Resimac, Heritage Building Society, etc).

The advent of RMBS securitisation in Australia during the mid 1990s transformed the mortgage market by intensifying competition to the demonstrable benefit of Australian households. With the effective closure of these markets, the rationing of credit has already begun (on an 'intra-market' basis) with a striking increase in industry concentration. According to Fujitsu Consulting, the Big-5 majors' new home loan market share has risen from circa 75% (pre sub-prime) to nearly 90% today. The 'reintermediation' of the major banks back into the home loan market is also forcing them to ration credit in other, more capital-intensive, sectors, such as small business lending (which has a 100% risk-weighting rather than the 35-50% risk weighting applied to home loans). The scaling back of these competitive forces will have negative long-term ramifications for Australian households and small businesses, and undermine a decade or more worth of microeconomic achievement.

The evaporation of third-party liquidity for Australian home loans has occurred in spite of their extraordinarily low historic default rates, which rank among the best in the world, and the exceptional overall health of the domestic economy. For these reasons there is a need to stem the tide and shore up the future by establishing a government agency, or a 'government sponsored enterprise' (GSE), that is capable of supplying a minimum level of liquidity to Australian lenders and fostering trading activity in the secondary RMBS market.

This issue is known to central banks around the world. They, including the Reserve Bank of Australia (RBA), have sought to fulfill such a role by providing restricted liquidity to banks that want to use their ballooning home loan exposures as collateral. While the RBA's recent modifications to its repurchase (or 'repo') facility criteria – following the lead of the US Federal Reserve – have assisted in staunching some of the primary RMBS market illiquidity, their actions have not in any way prevented the fundamental disruptions that are re-shaping the competitive dynamics in Australia's housing finance market.

Faced with these changes, there is an immediate need for close consideration of more direct government involvement in the capital markets. This is especially the case as the government's own very sound standing as an issuer of securities could be used to back liquidity of the kind that is currently drying up. This has the potential to resolve all of the aforementioned liquidity woes and restore healthy competition to Australia's mortgage market. Such intervention has precedent elsewhere. Historically, similar initiatives in the US, with the now privatized GSEs, Fannie Mae and Freddie Mac, and in Canada, with the government-owned CMHC, were created with precisely the same mandate that we have in mind: that is, to "stabilize mortgage markets and protect housing during extraordinary periods when stress or turmoil in the broader financial system threaten the economy."[7]

Under our proposal, the Commonwealth Government could guarantee the credit worthiness of a similar Australian government agency, referred to here as 'AussieMac,' thereby lending it Australia's AAA credit rating.[8] This would allow AussieMac to issue substantial volumes of extremely low cost bonds into the domestic and international capital markets. The funds raised through issuing these bonds could be used to acquire high-quality AAA-rated Australian home loans off the balance-sheets of lenders. AussieMac would therefore serve to guarantee liquidity in the Australia home loan market in the

[7] This is how the GSE regulator, OFHEO, characterises one of the GSE's roles.

[8] It is critical to note that our AussieMac proposal has nothing to do with the NSW Government mortgage financing agency, FANMAC, and the Government mortgage originator, HomeFund, which suffered significant difficulties in the early 1990s. These organisations ran into trouble because HomeFund was providing home loans to incredibly high risk borrowers who could not meet their repayments. One of the principal reasons for the problems was that HomeFund was misleading borrowers about the terms and conditions of their loans and aggressively targeting low-income or poorly-equipped households that could not service their repayments. For example, in 1993 Auditor General's report showed that 11% of HomeFund's unsubsidised borrowers and an amazing 35% of HomeFund's subsidized borrowers were in default, the latter of which more than twice as high as US sub-prime default rates. By way of contrast, average 30 day default rates on prime Australian home loans are just 0.84% according to S&P data. Importantly, it is categorically not proposed that AussieMac would be an originator of home loans, like HomeFund. Rather, the originators would be the mainstream private sector lenders that operate today. Even more importantly, AussieMac would only acquire high credit quality 'prime' mortgages sourced in accordance with its credit criteria just like the Canadian and US GSEs. Another issue with FANMAC and HomeFund was that their specially designed products involved steep increases in repayments made by borrowers after a certain period of time had elapsed much like the way the US adjustable rate mortgages that have caused so many problems work (ie, get a big reduction in repayments for a few years then get slammed by a huge increase down the road). As the NSW Ombudsmen said at the time, HomeFund was ill-considered, badly advised and poorly understood, even by the Government. Since inception, the overseas GSEs have generally had a hugely positive influence on the formation of the mortgage markets in the countries in question. One should not, therefore, extrapolate out from the sub-prime-like HomeFund experience.

event that other private sources of capital were to supply insufficient funding, such as is currently the case. This is exactly the role being fulfilled today by the CMHC in Canada, and Freddie Mac and Fannie Mae in the US. The Australian mortgage market, by way of contrast, is suffering from the absence of equivalent support.[9] In the near- to medium-term AussieMac could be privatised with the result that its debt would be taken off the government's own balance sheet, if that was deemed desirable.

AussieMac's liquidity guarantee would restore deep competition in the Australian mortgage industry and enable lenders that originate high credit quality home loans to always access a readily available source of finance. In this way, the establishment of an AussieMac-like agency would almost immediately resolve the market failures currently evidenced in the primary RMBS market and help to insulate Australian households and the financial system at large from exogenous global shocks that have nothing to do with the integrity of the Australian economy.

The presence of an agency such as AussieMac could have other important benefits. According to a leading financial economist, Richard Roll, numerous academic studies have found that the participation of Fannie Mae and Freddie Mac in the US home loan market has resulted in the reduction of mortgage rates by 25-50 basis points more than would have been the case in their absence.[10] Of course, this analysis presupposes that the primary and secondary US mortgage markets would have emerged without the presence of the US GSEs in the first place (which were effective duopolists for many decades), which is highly doubtful to say the least. Moreover, to the extent that AussieMac issues long-dated fixed-rate paper it could also assist in the development of 30-year and 40-year fixed-rate home loans in Australia, which are such a critical element of the US market but unseen here. Finally, there would be considerable merit in imbuing AussieMac with an explicit affordable housing mandate such that it can supply credit-enhancement and securitisation services to facilitate the provision of finance to low-income and/or disadvantaged households where there is private-market failure to do so. The CMHC, Fannie Mae and Freddie Mac have all been chartered with objectives along these lines.

The funding advantages afforded to such an agency should ensure that it is a profitable going concern that does not require any direct public subsidies. There are, to be sure, many important details that need to be worked out around the 'execution' of such a plan. For example, government would be well advised to institute appropriate restrictions to safeguard against this agency unnecessarily disintermediating natural private sector activity. While Fannie Mae and Freddie Mac have been extraordinary successful institutions for the best part of 50 years, they too have been occasionally embroiled in governance sagas that tend to at one time or another afflict all major corporations.[11] With this in mind, it will be important for government to learn from these mis-steps and institute the strongest possible oversight regime. Nonetheless, these possibilities should not prevent a concrete exploration of the creation of an Australian GSE as one potentially powerful shield against global financial turbulence.

The Australian Mortgage Securitisation Market

Up until nine months ago, Australia had the fourth largest secondary mortgage market in the world, with over $284 billion worth of prime home loans having been successfully sold to local and overseas investors since 2002.[12] A key driver of the exponential growth in the Australian RMBS market, which has risen in value from just $3.3 billion loans outstanding in January 1996 (see figure below), was the fact that Australian mortgages have one of the lowest long-term default rates in the

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[9] We believe that there is an argument that the presence of a similar GSE in the UK would have prevented the 2007 'run' on the major UK lender, Northern Rock, which resulted in its nationalisation.

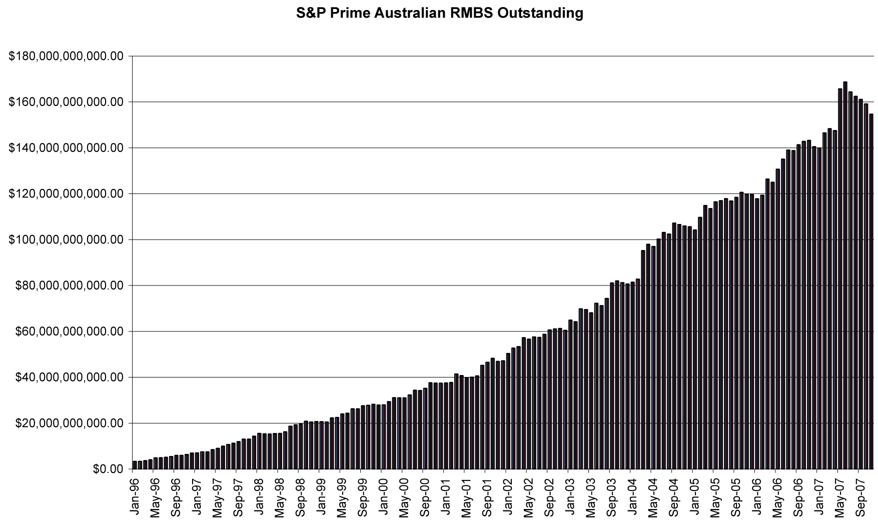
[10] Richard Roll, "Benefits to Home Owners from Mortgage Portfolios Retained by Fannie Mae and Freddie Mac," *Journal of Financial Services Research*, 23 (1), 2003, pp.29-42.

[11] Freddie Mac and Fannie Mae have been recently forced to re-state their earnings due to widespread accounting errors.

[12] According to S&P SPIN data at November 2007.

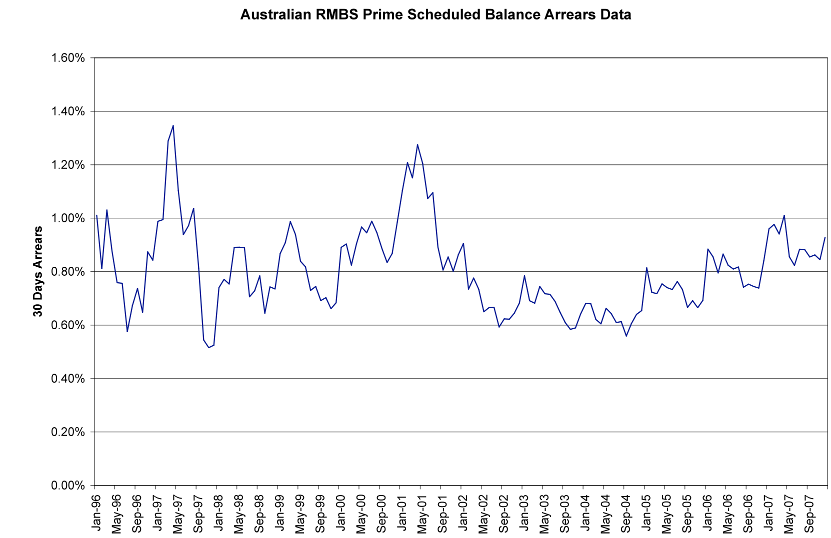
developed world and significantly less than comparable rates of default on US loans.[13,14] This is, in part, a function of the full-recourse nature of Australian mortgages and the fact that the level of personal bankruptcies in Australia is lower than in the US (significantly), Canada, and the UK.[15]

In contrast to the US, where around 10-15% of all mortgages are classified as 'sub-prime.'[16] Australia does not have a large sub-prime market. Indeed, the RBA estimates that only around 1% of Australian home loans can be classified in this way.[17]



Source: Standard & Poors

Even today, after a cycle of 12 interest rate rises, Australian mortgage default rates are still not significantly greater than historical averages. For example, the S&P scheduled payment 30 days-plus arrears estimate on prime Australian RMBS at December 2007 was just 0.93%, which is not significantly different from the historical average between 1996 and 2006 (a sample period that noticeably excludes the much higher real interest rates and default rates experienced in the late 1980s and early 1990s). By comparison, 30 day default rates on



Source: Standard & Poors

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13 For example, the claims frequency on mortgage insured loans has averaged just 0.64% over the last 40 years according to one of Australia's largest mortgage insurers.

14 In its 2006 Investor Guide, S&P commented, "Australian residential mortgages have always been considered to have had low credit risks…To date, performance of Australian RMBS transactions has been outstanding; there have been no losses or chargeoffs on any rated notes...The absolute level of losses on loans in Australian RMBS pools has been extremely low compared with the volume of loans that have been securitized…Some of the fundamental characteristics of the Australian market which underpin the quality of residential mortgage loans are: the full recourse nature of loans to borrowers; a strong home ownership ethos and a high free-and-clear ownership rate; the rarity of severe downturns in nominal property prices across the country; and good prepayment speeds due to nondeductibility of interest on housing loans." *Standard and Poor's*, *An Investor Guide to Australia's Housing Market and Residential Mortgage-Backed Securities*, *November 2006*.

15 According to S&P, the main reasons for Australia's low level of personal bankruptcies are "the historical willingness of Australians to repay debt (that is, a strong credit culture), the severe consequences of bankruptcy under Australian law, the stigma associated with bankruptcy, and the difficulty in accessing finance after bankruptcy. Also, even in bankruptcy, lenders continue to have personal recourse alongside other creditors to bankrupt borrowers after the security property is sold." Standard and Poor's, An Investor Guide to Australia's Housing Market and Residential Mortgage-Backed Securities, November 2006.

16 See RBA *Financial Stability Review* (March 2007).

17 *Ibid*.

US prime loans are heading towards 4% whereas 30 day delinquencies on US sub-prime mortgages are over 16%.[18] While default rates will undoubtedly increase in the next year as an inevitable response to the RBA's contractionary monetary policy stance, the long-term resilience of Australian household balance-sheets is a well documented fact.

The sophistication of credit markets, and securitised mortgage markets in particular, makes it especially difficult for policymakers to navigate their way through this complex miasma and understand the real-world consequences of the current global credit crunch. Indeed, the RBA itself has had a tough enough time trying to predict what the evaporation of liquidity in debt capital markets means for the Australian economy (refer to the Board's changing views on this subject between November 2007 and March 2008).

We believe that the global liquidity crisis, and the desertion of demand for primary residential mortgage-backed issuance in Australia more specifically, is bringing about the most profound transformation of the Australian home loan industry since the emergence of mortgage-backed securitisation in the mid 1990s. Amongst other things, these ructions have significantly increased costs for borrowers (over and above RBA-induced rate changes), dramatically reduced competition in the mortgage origination market, and commensurately increased the market share and bargaining power of the Big-5 major banks.[19] According to market participants, there have also been other, equally insidious consequences, such as a rationing of credit by the major banks from more capital-intensive sectors, like small business lending (which attracts a 100% risk weighting), to enable them to fund their gains in the more attractive home loan market (which only has a 35-50% risk weighting). Based on this analysis, both households and small businesses ultimately suffer.

It was the advent of Australian mortgage-backed securitisation (without any explicit government support) in the mid 1990s–whereby lenders could secure funding from third-parties such as super funds and overseas investors—that enabled the emergence of non-bank lenders, like Aussie Home Loans, Wizard, Macquarie Group, Challenger Finanical Group, Resimac, RAMS and Mortgage House, amongst many others.

What is less appreciated is that the smaller retail banks and building societies, such as Adelaide Bank, Credit Union Australia and Heritage Building Society, were also prolific securitisers (relative to the volume of home loans they originated), as the process of off balance-sheet funding enabled them to effectively compete with the majors.

The table below (compiled from JP Morgan estimates) illustrates the different funding mixes of the seven largest banks in Australia with a clear increase in the use of securitised funding as the size of the bank declines.

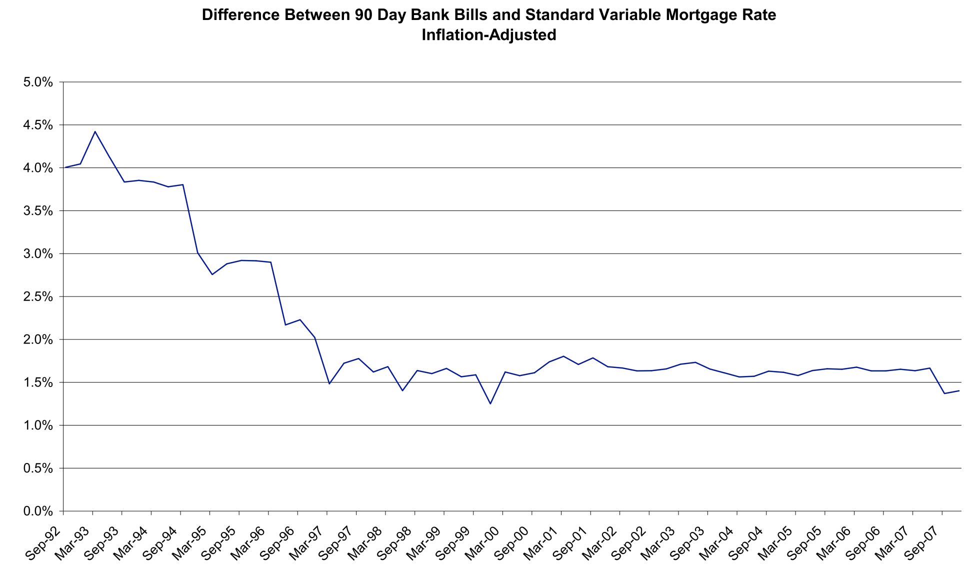
Australian Bank Funding Mix							
	ANZ	CBA	NAB	WBC	SGB	BOQ	BEN
Household Deposits	11%	28%	10%	10%	29%	35%	24%
Non-household Deposits	42%	29%	40%	28%	11%	30%	43%
Total Deposits	53%	57%	50%	38%	40%	65%	66%
Securitisation	**6%**	**4%**	**10%**	**3%**	**17%**	**22%**	**30%**
Other Wholesale Funding	**33%**	**31%**	**31%**	**56%**	**39%**	**9%**	**1%**
Total Wholesale Funding	**39%**	**35%**	**41%**	**59%**	**56%**	**31%**	**31%**
Interest Bearing Liabilities	93%	92%	91%	96%	96%	97%	97%
Free Float	7%	8%	9%	4%	4%	3%	3%
Total Funding	100%	100%	100%	100%	100%	100%	100%

Even smaller institutions, like Adelaide Bank, were until the 2007 sub-prime crisis sourcing up to 50% of their capital from the securitisation markets. Of course, the systemic decline in net household savings rates over the last 50 years has only further complicated the task traditional retail banks have had in funding their mortgage origination activities through their deposit

[18] According to the RBA's February 2008 Statement on Monetary Policy.

[19] This should give one pause in light of recent calls to discard the Four Pillars Policy due to purportedly heightened competition in the mortgage market.

base as the demand for home loans rises.



Source: RBA

To summarise, the emergence of liquid secondary mortgage markets in Australia in the mid 1990s, following the lead of the long-standing, multi-trillion dollar US mortgage-backed securities market (which in turn derived its existence from the presence of the US GSEs), directly contributed to a dramatic decline in the home loan margins captured by Australian lenders from over 4% in 1992 to just 1.4% today, and delivered a tremendous improvement in the cost, availability and flexibility of housing finance in Australia (refer to the figure above).

Global Credit Crisis Consequences

Prior to the emergence of the global liquidity crunch in August 2007, the Big-5 major banks in Australia accounted for roughly 75% of new home loan volumes.[20] Their dominance in the market had declined significantly since the dawn of the non-bank lenders and the increasing national prominence of other regional banks and building societies.

Within the space of just eight months there has been a stunning reversal in this competitive dynamic with the latest Fujitsu Consulting analysis for February 2008 data suggesting that the 'new' home loan volume market share of the Big-5 majors has risen to nearly 90%. Fujitsu Consulting believe that this figure will stabilise at around 85%. This has effectively resulted in the Australian mortgage market taking a step back in time to the pre-securitisation days prior to the mid 1990s when there was little competition to the majors in the home loan market (and consumers paid margins of 4% above bank bills relative to the 1.4% they pay today).

The dramatic reduction in competition faced by the majors, who have a profound comparative advantage insofar as they can fund new loans via their deep deposit bases, has been brought about the effects of the global credit crunch on the primary RMBS issuance market, which, as discussed previously, has largely dried up. The challenges confronted by smaller bank lenders, non-bank lenders and building societies in securing new funding has forced them to either dramatically ration credit and reduce their origination levels (eg, Adelaide Bank, Challenger, Resimac, Credit Union Australia, Wizard, Heritage Building Society, Liberty, Bluestone, Mortgage House and all the other smaller 'mortgage managers') or terminate lending altogether and withdraw completely from the market (eg, RAMS, Macquarie Bank and ANZ's Origin).

In a recent combined report by two industry observers, InfoChoice and *The Sheet*, the authors comment:

> What's also overlooked, in the context of the credit conditions that now prevail, is how significant a proportion of home loan business in Australia is supplied by lenders whose business models were created on the back of, and essentially dependent upon, securitisation. Seven months after that market froze over it is becoming all too apparent that whole-sale lines from banks, which were never meant to be anything more than short-term funding, won't fill the gap. While a very small number of lenders may be able to put in place long term bank lines to replace the funding once provided from the debt capital market many cannot. And the conditions and pricing on bank funding are becoming quite

[20] Fujitsu Consulting, 2008.

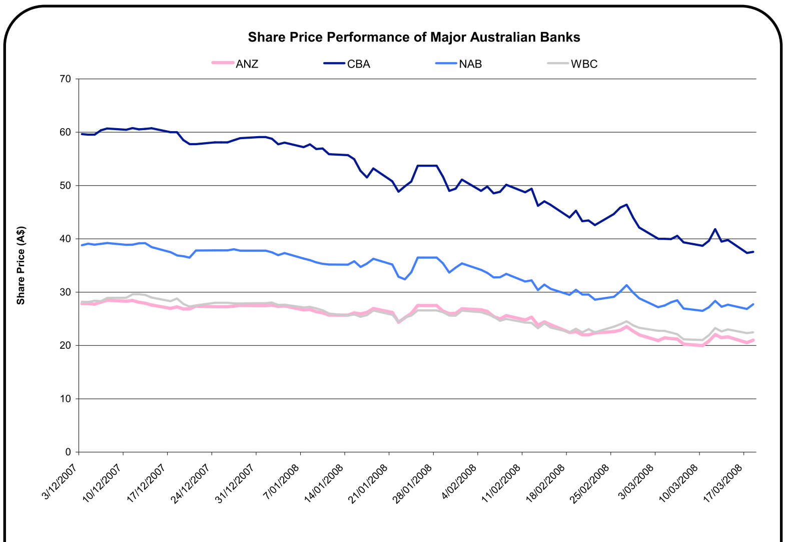
adverse.[21]

Perhaps the biggest casualty to date has been Macquarie Bank, whose PUMA division was one of the pioneering mortgage securitisers in Australia and for a long time served as the primary funder behind the non-bank lender Aussie Home Loans. On the 5th of March 2008, Macquarie announced that it was effectively shutting down its Australian mortgage business because of the liquidity crunch with staff terminations reported to number up to 200.[22] Since that time it has been reported in the media that Macquarie has also terminated its US mortgage operations. More recently, ANZ Bank has followed suit by shutting down its wholesale funding securitisation business, Origin.

Australia's two largest 'non-conforming' lenders, Liberty and Bluestone, have also announced that they are radically scaling back their new loan issuance because of an inability to access sufficient third-party funding. In this context, Bluestone's founder and Executive Chairman, Alistair Jeffrey, recently commented, "Non-banks have outsourced their balance sheets to the capital markets. Our business has relied on the strength of the securitisation market. That market is dysfunctional."

One of Australia's biggest wholesale mortgage funders is the Challenger Financial Services Group, which has around 2.5% of the entire home loan market.[23] Challenger provides funds to third-party originators, known as mortgage managers, who 'white-label' Challenger home loans under their own brands. In March 2008, Challenger's CEO, Mike Tilley, disclosed that Challenger "stopped writing any real volume around about November because it was clear that we couldn't make money on new mortgages."[24]

Here it is important to note that system-wide credit rationing has yet to materialise as the volume of outstanding housing finance is still rising, although this remains a genuine risk. There is, of course, severe credit rationing in the non-Big-5 segment of the market. As the non-major lenders fall by the wayside the bigger banks have had to (willingly) step into the breach in a process that is being described as 're-intermediation.' However, even the larger banks relied on wholesale funding and securitised capital sources to originate new loans as can be seen from the table above. The market share gains secured by the major banks have therefore started to place considerable pressure on their own balance-sheets. This has been evidenced by many of the banks signaling their need to raise new equity or hybrid debt capital to fund continued home loan issuance. There have also been wide reports of credit rationing by the major banks in the small business and corporate lending markets (see Centro, Allco, MFS, Rubicon, ABC Learning and others), which had served to plug the gap left by their historic market share losses to the smaller lenders in the home loan market.



Source: UBS Australia

With the major banks facing the specter of exhausting their balance-sheet capacity as a result of rising residential mortgage demand, combined with growing concerns around a blow-out in bad debt risk in the corporate lending market as interest rates increase and the economy slows down, their stocks have recently suffered sizeable falls (see the figure to the right). Since the original publication of this paper, *The Sheet* has reported that bad debts provisioning by the major banks has started to increase, with ANZ announcing on the 7th of April that the total provision for

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[21] *State of play: the Australian mortgage industry* (17 March 2008).

[22] Macquarie is continuing to fund small levels of new volumes through Virgin Money and Aussie Home Loans.

[23] According to CEO Mike Tilley, February 2008, as quoted in *The Sheet*.

[24] *Ibid*.

credit impairment for the March 2008 half, including a rise in the collective provision, was "likely to be approximately $975 million" versus $567 million for the full year in 2007.

On Friday the 7th of March, ANZ Bank's CEO, Mike Smith, gave a speech at the Australian British Chamber of Commerce in which he argued that "not only are no more interest rate rises required in Australia to contain inflation but that last week's rate rise engineered by the RBA wasn't necessary either." Smith continued, "One of the many things I believe is missing in this debate is that if we can't properly reprice lending, there is a real risk banks will ultimately be limited in the amount we are able to lend customers to buy houses or to expand their businesses… We saw this earlier [last] week when Macquarie became the first prime lender to say it would scale back its mortgage business as they no longer see it as having a balanced risk-reward relationship."[25]

Smith was flagging these concerns in the context of the need for ANZ to raise more equity capital to shore up its balance sheet. Along similar lines, CBA recently announced that it has cancelled a share buyback in order to increase capital by around $400 million (sufficient to fund growth of one-third of CBA's loan book). According to *The Sheet*, "The genesis of the decision to hold on to this capital appears to be the bleak assessment of other banks and debt and equity investors that the bank's managing director Ralph Norris … encountered in separate visits to Europe and North America last week… Other banks also raising capital, though somewhat under the radar, include Wizard ($315 million), National Australia Bank (at least NZ$350 million through a tier one hybrid being sold by Bank of New Zealand) and Bendigo and Adelaide Bank."

CBA's CFO, David Craig, has not been shy in acknowledging the process of re-intermediation that is currently gripping the Australian mortgage market: "The call for funds from the consumer markets continues to be very strong... There's an increasing need for re-intermediation by some of our customers who are having trouble funding themselves in debt capital markets and who are turning to banks for help... And you see players vacate the field. Macquarie Bank last week in mortgages. There may be others. There are fewer players at the moment. That clearly reduces supply…You've heard a couple of other banks say they may need to ration lending."[26]

One limited response of the RBA to the liquidity crisis has been to broaden the range of securities that could be used for repurchase agreements (or 'repos') to include AAA-rated RMBS. However, the RBA will only provide funds for 90% of the face value of the securities and has the right to put the assets back to the lender at any time (ie, the repo facility has in effect an overnight term). This is, therefore, a very restricted solution to the current liquidity crunch, which, more importantly, is only available to ADIs (and not non-bank lenders).[27]

In explaining its decision to increase the pool of eligible collateral to include AAA-rated RMBS, the RBA commented:

> Through the period of turbulence there has been a much larger premium placed on liquid assets. This was generating a distortion between different parts of banks' balance sheets and between different banks depending on their funding sources. Assets, which in other times would be treated similarly in the market, were being discriminated based on their repo-eligibility. The broadening of repo-eligibility sought to address one source of the distortion. As the dislocation was particularly prevalent in the securitised markets, the change sought to address the dislocation at its source rather than indirectly.

In an indication of the aforementioned balance-sheet stresses, several Australian banks have taken immediate advantage of the changes made to the RBA's repo criteria. Westpac was the first to undertake a $10.6 billion 'internal securitisation' of its home loans, which are repo-eligible with the RBA. In response to what was widely considered to be a very unusual move, Westpac commented at the time, "It's a form of emergency funding." Other institutions, such as Members Equity and the Bank of Queensland have subsequently followed suit.

In a 29 November 2007 speech on the burgeoning capital market chaos, Guy Debelle, Assistant Governor for Financial Markets at the RBA, submitted these insights on the ramifications for the Australian securitisation market:

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25 As quoted in *The Sheet*, March 2008.

26 *ibid*.

27 The RBA has recently extended its maximum repo term to 90 days following similar measures by the US Fed, the ECB, the Bank of England and the Bank of Canada.

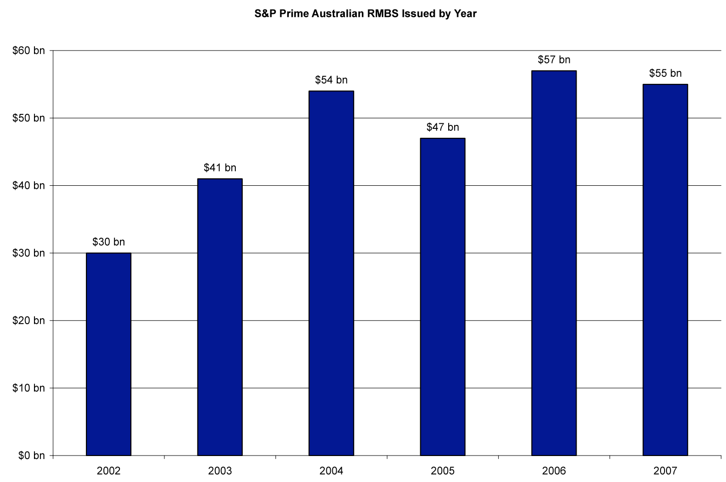
> The recent developments pose a number of challenges for the securitisation industry. In general, the growth of the securitisation market has enhanced the operation of the financial system. It has facilitated intermediation by enabling institutions to sell to a broader class of investor, rather than solely relying on intermediation across their own books. It has provided investors with a fixed interest product to meet their investment criteria. In Australia, as in other countries, the growth of securitisation in the mortgage market in particular has significantly enhanced competition. As described in detail in other RBA publications, it has allowed new entrants and contributed to lower margins. However, the recent developments have generated a large amount of investor scepticism about securitised products. A lemons problem has arisen where all securitised products are being sold, albeit to varying degrees, at a discount because investors have become concerned about the product itself.

The RBA's concerns highlight the nature of the market failure that we document next: providers of liquidity in the US RMBS market have had grave difficulties evaluating the risk profiles of assets within that market. While Australian prime RMBS assets have exceedingly low credit risks, which are just a fraction of their US counterparts, the market for these securities has become exceptionally thin and, in some cases, non-existent, purely as a function of the huge increase in global risk-aversion. Importantly, the Australian mortgage market does not benefit from a GSE, such as the CMHC, Freddie Mac or Fannie Mae, to supply liquidity during these 'exported' crises.

Effective Market Failure in the Primary RMBS Market

After experiencing extraordinary growth over the last decade-plus with annual issuance since 2003 averaging $50.8 billion, there have been virtually no AAA- or AA-rated RMBS primary transactions in Australia since November 2007 (see chart below). This dearth of investor demand followed precipitous falls in primary market RMBS activity after the onset of the August 2007 sub-prime crisis. Most experts expect very thin primary market liquidity to persist for another 6-12 months. When demand does eventually return, participants project that it will do so in limited form and on materially more expensive terms. The current RMBS market failure has arisen as a function of a number of factors, including:

- **The demise of the "Structured Investment Vehicles" (SIVs)**, which were a key source of demand for RMBS issues. The SIVs borrowed short-term money using commercial paper (CP) and then used this money to acquire AAA-rated RMBS bonds earning a small spread on the return yielded by the bonds relative to the cost of the CP. The 2007 US sub-prime crisis resulted in a liquidity crunch in the CP market with funding disappearing. The absence of any significant liquidity in the CP market remains to this day. Since the SIVs rely on short-term CP funding to underwrite their longer-dated RMBS assets, there is a regular need to 'roll-over' that CP funding. In many cases the sponsoring SIV banks, such as Citigroup, have had to rescue the SIVs and bring them back on to their own balance-sheets (reporting losses as the mark-to-market value of the RMBS securities plummets);[28]



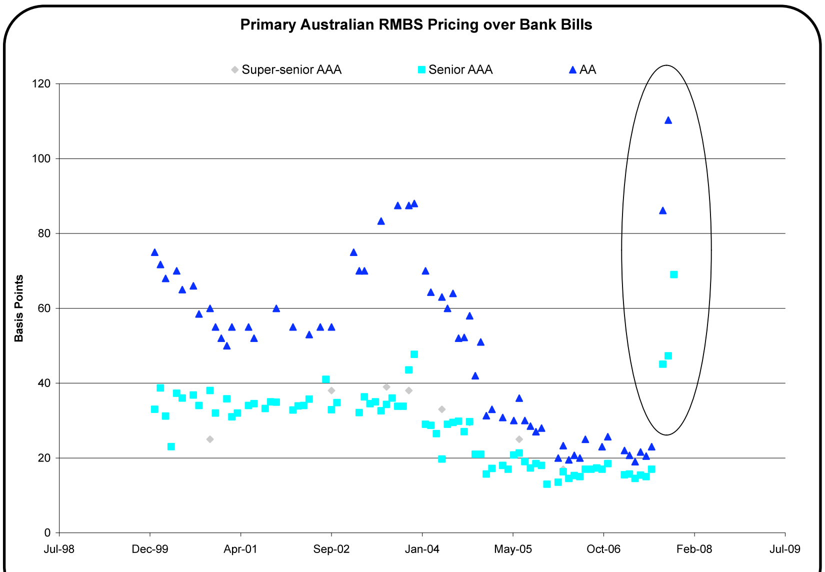
Source: Standard & Poors

- **The demise of other sources of primary RMBS demand**, including "Collateralized Debt Obligations" (CDOs), which are a type of asset-backed security and structured credit product comprising a portfolio of fixed-income assets. There had been tremendous growth in the CDO market with US$489 billion issued in 2006.[29] Many CDOs had significant exposures to sub-prime mortgages and as delinquencies

[28] Virtually all global investment and commercial banks have recorded significant losses on the value of their loans as a result of the sub-prime crisis, including: Citigroup (US$24.1 bn);Merrill Lynch (US$22.5 bn); UBS (US$18.7 bn); Morgan Stanley (US $10.3 bn); Credit Agricole (US $4.8 bn); HSBC (US$17.2 bn); Bank of America (US$9.4 bn); CIBC (US$3.2 bn); and Deustche Bank (US$3.1 bn), to name just a few (Source: http://en.wikipedia.org/wiki/Subprime_mortgage_crisis).

[29] Securities Industry and Financial Markets Association.

on these assets sky-rocketed in 2007 CDOs experienced ratings downgrades and losses. As the mortgages underlying the CDOs fell in value, the banks and investment funds holding them faced challenges pricing the assets given the CDOs' inherent illiquidity. In the latter half of 2007 these organisations ultimately began writing down the value of their investments in the CDOs to less than 50 cents in the dollar resulting in massive reported losses (eg, Bear Stearns, Merrills, Morgan Stanley, Citigroup, UBS, Credit Agricole, HSBC, Bank of America, CIBC, Deustche Bank etc). This has in turn resulted in a dramatic decline in the new issuance of CDOs,[30] with the knock-on effect that CDO funds for RMBS have all but disappeared;



Source: RBA

- Finally, **the absence of liquidity** for Australian RMBS has seen the last recorded AAA primary market spreads to bank bills blow out to 69 basis points (according to the latest RBA data), while recent secondary market trades of Australian RMBS have seen spreads of up to 300 basis points. Pre sub-prime, primary and secondary RMBS transactions usually priced at less than 20 basis points for AAA tranches (refer to the above figure). In order for a standard non-bank securitiser to break-even on a primary RMBS issue they would—after all asset-acquisition, structuring and transaction costs—typically have a maximum acceptable RMBS price of around 80 basis points over banks bills (with normal market pricing at less than 20 basis points).[31] With no current primary market demand for Australian RMBS (in part because of the absence of SIV and CDO demand), and typical secondary market pricing at late 100 basis points to early 200 basis points above bills (ie, up to 10 times higher than pre sub-prime pricing), one can see why primary liquidity has disappeared. Local institutions, such as super funds, are also much more likely to acquire RMBS assets in the secondary market since the pricing offered is far cheaper than any primary issue. However, even the secondary market trading activity is highly illiquid.

The picture is one of a disappearing market. And the story of how that has occurred is a somewhat familiar one. The US economist Paul Krugman likens the issue to a "giant bank run, albeit on financial institutions that aren't called banks – and aren't regulated like banks." He goes on:[32]

> Bank runs come in two kinds. In some cases, the bank run is a pure self-fulfilling prophecy: the bank is "fundamentally sound," but a panic by depositors forces a too-hasty liquidation of its assets, and it goes bust. It's as if someone calls "fire!" in a crowded theater, provoking a stampede that kills many people, even though there wasn't actually a fire. In other cases, the bank is fundamentally unsound — but the bank run magnifies its losses. It's as if someone calls "Fire!" in a crowded theater, and there really is a fire — but the stampede kills people who would have survived an orderly evacuation. We're in the second case. The Fed has spent the last 7 months trying to assure people that there isn't any

[30] According to the *Financial Times*, Citigroup is predicting that CDO issuance will fall by 60% in 2008 year on year.

[31] A rough approximation of the calculus for a securitiser can be thought of as follows. They face around 80 basis points of all-in operating and structuring costs when originating the loans. Taking, say, a further 20 basis points of securitisation costs (given past pricing) and the recent historical margin of mortgages rates over BBSW of about 140 basis points, it would appear that lenders require circa 40 basis points of "margin" to make their minimum return on equity hurdles. If you then assume that the maximum interest rate a lender can charge in order to be competitive in the home loan market is roughly 200 basis points over BBSW, this implies that the maximum primary RMBS price they can bear is about 80 basis points. Note these are indicative figures for illustrative purposes only. Of course, another critical challenge a non-bank lender faces is whether given these parameters they can find third-party warehouse funding to originate the loans in the first place. With the exit of Societe Generale from the warehouse funding market in Australia (which provided around $9 billion worth of facilities), there is a large funding 'gap' independent of all of the primary RMBS market illiquidity issues.

[32] Paul Krugman's *New York Times* blog: 18th March, 2008.

> fire. But there is. Worse yet, thanks to decades of deregulation, the theater doesn't have a sprinkler system - and the town the theater is in doesn't have a fire department.

While Australian lenders are clearly in Krugman's first case, the potential fall-out is no less concerning. The problem is that market participants cannot distinguish between good and bad debt in the RMBS sector. As Joseph Stiglitz explained recently in *The Guardian*:[33]

> Globalisation implies that America's mortgage problem has worldwide repercussions. The first run on a bank occurred against the British mortgage lender Northern Rock. America managed to pass off bad mortgages worth hundreds of billions of dollars to investors (including banks) around the world. They buried the bad mortgages in complicated instruments, buried them so deep that no one knew exactly how badly they were impaired, and no one could calculate how to reprice them quickly. In the face of such uncertainty, markets froze.…
>
> Securitisation, with all of its advantages in sharing risk, has three problems that were not adequately anticipated. While it meant that American banks were not hit as hard as they would otherwise, America's bad lending practices have had global effects. Moreover, securitisation contributed to bad lending: in the old days, banks that originated bad loans bore the consequences; in the new world of securitisation, the originators could pass the loans onto others. (As economists would say, problems of asymmetric information have increased.)

In this respect, what we have seen is a classic market failure and with that a presumptive rationale for government intervention to improve efficiency. The issue is how to effectively achieve that intervention. It is to this issue that we now turn.

The Public Goods of Liquidity and Price Discovery

The central tenet of this proposal is that a basic level of liquidity in key economic markets is a 'public good'. The policy imperative here is reinforced by the fact that severe market dislocations, such as the credit crunch that we are presently observing, are becoming increasingly common and more quickly transmitted in today's highly networked world. The presence and apparent regularity of these extreme events is consistent with recent academic innovations in the so-called 'behavioural finance' and 'extreme value theory' literatures.

In standard finance theory, academics, and the commercial practitioners that follow their prescriptions, have all too often made the erroneous assumption (for analytical purposes) that asset returns are 'normally distributed' (ie, virtually never subject to events like the 1987 stock market crash or the 2001 tech wreck) and that financial markets are 'frictionless'—ie, investors always benefit from perfect liquidity and price-discovery. These are, by way of example, some of the essential assumptions underpinning the 'Capital Asset Pricing Model' (CAPM), which is widely used around the world by investors and their advisors. Up until recently, the assumption of perfect liquidity and return normality were condition precedents in almost all financial models used by financial market participants.

In the real world, however, investors are finding that they are increasingly faced with periods of profound illiquidity, extremely poor price discovery, and, in certain cases, complete market failure. In the financial market history of the last two decades, there are numerous examples of this illiquidity problem and governments acting to remedy it. In 1998 the massive hedge fund LTCM confronted severe illiquidity when the Russian government defaulted on its debt obligations, losing some US$4.6 billion in less than four months (LTCM was also hit by a sudden convergence in the 'correlations' of all of the assets it held, which it had previously assumed to be uncorrelated and hence well-diversified). Of course, at that time the US Fed acted to facilitate a bail-out of LTCM by a consortium of investment banks.

In the past eight months, major institutions around the world have been subject to the specter of extreme illiquidity in the market for many of their debt securities, which has in turn made price discovery near impossible (ie, how do you value assets for which there are virtually no prices, and when prices do exist almost all participants—including the regulators and government—agree that they represent dramatic deviations from any understanding of fair market value).

One of the primary problems here is that academics, practitioners, and regulators are discovering that financial markets are not always 'efficient' in the sense that was popularized by University of Chicago financial economists such as Eugene

[33] "Houses of cards," *The Guardian*, 9th October, 2007.

Fama[34] (1965). This assumption of market efficiency has dramatically changed the financial market landscape and led, for instance, to the prolific use of 'index' funds provided by State Street, Vanguard and others. The market efficiency paradigm in turn hinged on the belief that investors are in aggregate highly rational 'agents' that are not subject to systematic behavioural biases. This assumption can in turn be traced back to the work of the US economist John Muth who developed the so-called 'rational expectations' theory under which individuals and institutions make forecasts about the future without any fundamental error or bias. That is, investors' expectations are, on average, accurate. This rational expectations hypothesis has underpinned much macroeconomic analysis of the last half century.

More recently, though, pioneering academics such as Kahneman and Tversky[35] —the former of whom received the Nobel Prize in 2002— and Richard Thaler have applied principles from psychology, sociology and anthropology to document that in practice people behave in a manner that can deviate strikingly from the equilibrium predictions of the efficient markets hypothesis (and rational expectations in particular).

This makes intuitive sense if we cast our minds back through history and consider the speculative fads and crashes of the Dutch tulip mania, the emergence of junk bonds in the early 1980s, the related 1987 stock market crash, the late 1990s tech craze and the inexorable tech wreck of 2001. Over the last 20 years a large body of evidence has built up illustrating that humans are fallible and subject to a wide range of biases, including irrational loss-aversion, framing, use of heuristic rules of thumb, hindsight biases, and cognitive dissonance (ie, avoiding information that conflicts with our assumptions).

Many authors, such as Barberis, Shleifer, and Vishny[36] and Daniel, Hirshleifer, and Subrahmanyam[37] have demonstrated that there can be major mispricings, non-rational decision making, and return anomalies in financial markets due to these behavioural biases. In particular, the tendency of humans to identify fictitious 'patterns' in otherwise random return sequences, and for us to be consistently 'over-confident' in our assessment of our own forecasting abilities, can result in significant market over- and under-reactions in asset price returns (eg, consider the tech boom and subsequent crash). Behavioural economists have also found evidence of the anecdotally well-known market phenomenon of 'herding' and 'groupthink' whereby strongly anomalous market-wide effects can materialise where there is collective fear and greed (again consider the wild and seemingly irrational—at least judging by the actions of central banks—swings in the risk appetites of global debt investors before and after the US sub-prime crisis).

It is now accepted by many economists that these behavioural biases that plague human decision-making under uncertainty can cause extreme asset price bubbles and subsequent crashes. In parallel with these innovations in the field of behavioural finance, academics have also started to accept that capital market returns are not 'normally distributed', but rather characterized by 'fat-tails.'[38] The presence of these fait-tails or so-called 'black swans' in asset returns, which suggests that extreme events (such as the 1987 crash or the current credit crunch) can occur with far greater regularity than the predictions of a 'normal' distribution, is also consistent with the tendency of investors to irrationally herd in one positive or negative direction, which can perpetuate clusterings of extremely positive or negative outcomes, such as that which we are observing today.

For better or worse, it would appear that recent regulatory changes that require institutions to 'mark-to-market' securities that they would previously hold to 'term' sometimes serves to further exacerbate these liquidity crises and entrench the associated market failures (since these institutions are forced to report losses and raise equity to supplement their capital on the basis of inaccurate prices that are an artifact of irrational investor risk-aversion and the consequent unwillingness to trade).

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[34] "The Behavior of Stock-Market Prices," *Journal of Business*, 38 (1), 1965, pp. 34-105

[35] "Prospect Theory: An Analysis of Decision under Risk," *Econometrica*, 47 (2), 1979), pp.263-291.

[36] "A Model of Investor Sentiment" *Journal of Financial Economics* 49, September 1998, pp.307-343.

[37] "Investor Psychology and Security Market Under- and Overreactions," *Journal of Finance*, 53(6), December 1998, pp.1839-1885.

[38] Mandelbrot, B.B. (1963), "The Variation of Certain Speculative Prices," *Journal of Business*, 36, pp.394-419

In the presence of highly uncertain prices, institutions are reluctant to lend to one another as they do not have sufficient visibility on the value of the collateral that they will use as security. This propagates potentially enormous problems for the financial system at large as transactions that were previously considered to be nearly risk-free are subject to perceptions of 'counterparty risk'. This is precisely what happened with Bear Stearns, which on 10 March 2008 reportedly still had US$17 billion in cash. A few days later, the leading US investment bank Goldman Sachs announced to the world that it would no longer serve as a counterparty in Bear Stearns' transactions. Goldman's actions shattered confidence in Bear Stearns' ability to service its obligations and meant that it could no longer raise any short-term debt funding to underwrite its working capital requirements. Once again, the Fed was forced to step in and inject liquidity into a market that had failed: in particular, the Fed took Bear Stearns' otherwise illiquid and unpriceable assets as security and lent JP Morgan the US$30 billion that it needed to buy Bear Stearns.

In 2005 paper, economists Cifuentes, Ferrucci and Hyun Song Shin,[39] argue:

> When the market's demand for illiquid assets is less than perfectly elastic, sales by distressed institutions depress the market prices of such assets. Marking to market of the asset book can induce a further round of endogenously generated sales of assets, depressing prices further and inducing further sales. Contagious failures can result from small shocks… At times of market turbulence the remedial actions prescribed by these regulations may have perverse effects on systemic stability. Forced sales of assets may feed back on market volatility and produce a downward spiral in asset prices, which in turn may affect adversely other financial institutions…In this way, the combination of mark-to-market accounting and solvency constraints has the potential to induce an endogenous response that far outweighs the initial shock.

It should be clear that market failures and the absence of price discovery suggest that the provision of a minimum level of liquidity can be construed as a 'public good'. While in practice it is hard for any good to unconditionally satisfy the two key conditions of a public good—namely 'non-rivalness' and 'non-excludability'—many come close to approximating them (eg, the light from a lighthouse, clean air, and market infrastructures). It is well known that markets can fail to produce sufficient quantities of such goods, which is referred to as the 'public good problem'. As a technical aside, there may be an argument that market liquidity is 'rival' but 'non-excludable', in which case it may be more appropriately classified as a 'common pool resource'. In any event, you have similar problems to those found with public goods, albeit that in this case they are known as the 'tragedy of the commons'.

The argument that market liquidity has public good characteristics is an increasingly well-understood feature of the academic literature. Schwartz and Francioni[40] note that a number of different 'exchange goods' have public good qualities. They nominate 'price discovery' in financial markets, wherein transaction prices are like the beam from a lighthouse. The quality of these prices in turn relies on the effectiveness of the market's infrastructure, systems, procedures and protocols, which takes the bids and offers and transforms them into market-clearing trades that give rise to prices. Price discovery is also dependent on how the exchange discharges its self-regulatory obligations. Schwartz and Francioni assert that an exchange's self-regulatory obligations and the provision of supplementary liquidity are other examples of 'exchange-produced' public goods.

Along similar lines, Holmström and Tirole[41] address the question of whether "the state has a role in creating liquidity and regulating it either through adjustments in the stock of government securities or by other means?" They conclude that when there are liquidity shocks and "aggregate uncertainty" the private sector "…cannot satisfy its own liquidity needs. The government can improve welfare by issuing bonds that commit future consumer income…The government should manage debt so that liquidity is loosened (the value of bonds is high) when the aggregate liquidity shock is high and is tightened when the liquidity shock is low. The paper thus suggests a rationale both for government-supplied liquidity and for its active management."

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[39] "Liquidity Risk and Contagion," Bank of England Working Paper, No.264.

[40] *Equity Markets in Action: The Fundamentals of Liquidity, Market Structure & Trading*, John Wiley and Sons, 2004.

[41] *op.cit*.

The provision of supplementary liquidity and price stabilisation services by a government agency, such as we are seeing today with the RBA (on a limited and discriminatory basis to banks only), the US Fed, the Bank of England, the CHMC in Canada, or, perhaps in the future, AussiMac, is clearly consistent with the supply of the public goods of liquidity and price discovery. In short, these interventions are needed because the production of sufficient liquidity and accurate price discovery are not forthcoming in a pure market environment that is gripped for considerable periods of time by irrational investor behaviour—that is, by the complete closure of otherwise incredibly low-risk markets, such as the market for primary AAA Australian mortgage-backed securities. Importantly, the supply of liquidity and price discovery by these government agencies conveys non-rival and non-excludable benefits to all market participants.

Precedents for Government Action

In other countries, such as Canada and the US, the central governments established GSEs to foster primary and secondary trading liquidity in the housing finance markets. Indeed, there is a compelling case that liquid markets for securitised residential mortgages would never have emerged in the US, or for that matter anywhere else in the world, were it not for the establishment of Freddie Mac and Fannie Mae, which were the pioneers of the securitisation process and for many decades the only providers of off balance-sheet funding to US lenders.

The US government first created Fannie Mae in 1938 to “expand the flow of mortgage funds in all communities, at all times, under all economic conditions, and to help lower the costs to buy a home.” It was established at a time “when millions of families could not become homeowners, or risked losing their homes, for lack of a consistent supply of mortgage funds across America.” Another GSE, Freddie Mac was created in 1970 to compete against Fannie Mae, which was privatized in 1968, with a similar charter to make “America’s mortgage markets liquid and stable and [increase] opportunities for homeownership and affordable rental housing across the nation.”

Freddie Mac and Fannie Mae achieve these objectives by buying mortgages from lenders, packaging the mortgages into securities and selling the securities—guaranteed by Fannie Mae or Freddie Mac—to investors. Lenders use the proceeds from selling these loans to fund new mortgages, constantly replenishing the pool of finance available for lending to home owners. In this way, these two GSEs ensure that a continuous, low cost source of home loans is available to consumers whenever and wherever they need them. They therefore serve as a liquidity provider of last resort. As the US regulator of the GSEs, OFHEO, notes, “Fannie Mae and Freddie Mac…help stabilize mortgage markets and protect housing during extraordinary periods when stress or turmoil in the broader financial system threaten the economy.”

Because of the complexities of residential mortgage securitisation, and the deep difficulties associated with pricing ‘prepayment risks’ (ie, the risk—unique to mortgages—that home owners ‘put’ the debt back to investors at undesirable times, such as when interest rates fall), liquid private sector (ie, non-GSE) markets for pools of mortgages did not emerge in the US until the late 1970s and early 1980s.[42] In Australia, the first sizeable securitisations of mortgage pools did not materialise until the mid 1990s.

Today in the US there is over US$6 trillion worth of securitised mortgages, which is one of the largest and most liquid fixed income markets in the world.[43] Importantly, about 40% of US mortgage debt is accounted for by Fannie Mae and Freddie Mac either credit-enhancing that debt or acquiring it themselves as part of their ‘retained portfolios.’[44,45]

Fannie and Freddie obviously have especially significant responsibilities during liquidity crunches of the kind seen in the US today. Since the vast bulk of their business is only in high quality ‘agency’ loans they have limited exposures to sub-prime assets (ie, only via their purchases of AAA bonds that in turn have exposures to sub-prime loans). As US Senator Charles E.

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[42] Michael Lews’s book *Liars Poker* provides a fascinating history of the development of mortgage securitisation during the early 1980s within major US investment banks and Salomon Brothers in particular.

[43] The Bond Market Association.

[44] Roll, *op.cit*.

[45] Refer to http://www.ofheo.gov for more details on Fannie and Freddie’s activities.

Schumer, who chairs the US Senate Banking Committee's housing subcommittee, commented, "The whole reason Fannie and Freddie exist is to help in times like these."[46]

The Canadian mortgage market benefits from similar government support. The Canada Mortgage and Housing Corporation (CMHC) is Canada's national housing agency. It was established in 1946 as a Crown Corporation owned by the Government of Canada and is the leading supplier of mortgage loan insurance, mortgage-backed securities, housing policy and programs, and housing research.

The CMHC's role in the context of the RMBS markets is multifold. At the consumer level, it provides Lenders Mortgage Insurance (LMI) on a 'loan-by-loan basis' enabling Canadian lenders to supply borrowers with loan-to-value ratios (LVRs) of up to 95%. With the CMHC insurance in place, these loans receive a superior regulatory risk-weighting and can be more easily securitised. (In this context, the CMHC has a particular focus on areas that are poorly serviced by the private sector.) In Australia, mortgage insurance services are adequately supplied by the likes of PMI Mortgage Insurance and Genworth who during the recent financial crisis have provided their products on an uninterrupted basis.

The CMHC also 'guarantees' securitised pools of Canadian home loans under the National Housing Act Mortgage-Backed Securities Program (NHA MBS), protecting investors against borrower default and ensuring that that there is a steady supply of low-cost funds available from the capital markets. In 2006, the CMHC guaranteed more than C$36 billion worth of mortgage-related securities.

Finally, the CMHC issues government-backed bonds, known as Canada Mortgage Bonds (CMBs), to external investors based on pools of insured home loans that it acquires from Canadian lenders along the same lines as Fannie Mae and Freddie Mac.

Through its subsidiary, Canada Housing Trust, the CMHC has become one of the largest bond issuers in the Canadian market. In 2006 Canada Housing Trust issued a record C$25.1 billion in CMBs at an average spread of 11.5 basis points over the equivalent 5-year Government of Canada bond yield. According to Canadian media reports, investors have become increasingly reliant on the CMHC's securities for their contingent of government-backed bonds as liquidity in sovereign bonds has deteriorated as governments pay down debt.

For the purposes of this paper, it is especially important to note that the CMHC does not receive any direct government assistance to support either its mortgage insurance or securitisation activities (just like Fannie and Freddie).

And in striking contrast to the illiquidity that currently plagues the primary RMBS market in Australia, the CMHC has been able to continue to securitise large tranches of high quality Canadian home loans despite the ructions in global credit markets with a successful C$11 billion issue executed in March 2008.

A Potential Policy Solution: 'AussieMac'

In the last eight months fundamental changes have materialised in the competitive and pricing dynamics of one of Australia's largest economic markets — namely the residential home loan industry (with circa $250 billion worth of new mortgage originations each year) — as a result of the external shocks imposed by the global debt market crisis. Almost all observers would agree that the current liquidity crunch has absolutely nothing to do with the integrity of Australia's economy, our financial system, or the credit quality of Australian home loans. The simple fact is that Australian home owners, and the lenders that service them, have become casualties of the extreme illiquidity and risk-aversion that have manifest in international capital markets as a result of the US sub-prime crisis.

In particular, the ability of Australian home loan providers to properly securitise high quality AAA-rated RMBS has for all intents and purposes disappeared, which has in turn led to intra-market credit-rationing and a material reduction of competition in the industry outside of the Big-5 majors. The stresses placed on the major banks' balance-sheets via this new process of forced 're-intermediation' has also seriously raised the spectre, in the banks' own judgment, of system-level credit rationing, which could have catastrophic consequences for Australia's economy. There is some evidence that this is

[46] Washington Post (November 21 2007).

already occurring in the business lending market (eg, Centro, Allco, MFS, Rubicon, ABC Learning and others). For the time being, the banks are having to shore up their reserves by issuing equity and other forms of hybrid debt capital. However, their continued ability to do so given precipitous falls in the value of their own equity and ongoing credit market ructions remains an open question.

The policy problem here is that the effective failure of the primary Australian mortgage-backed securities market arguably exposes consumers, the financial system, and the economy at large to untenable risks. In particular, to the extent that the Government is pushing for policies that will make housing and, especially, housing finance more affordable, a shutdown in a key area for the supply of that finance should be at the top of its agenda.

Given the increasing prevalence of global financial market shocks driven by short-term shifts in participant psychology (that cause dramatic deviations from competitive market equilibrium),[47] which have the capacity to effectively extinguish liquidity in key economic industries, such as the market for AAA-rated Australian RMBS, we believe that there is a need for the establishment of an Australian government agency that has a mandate to safeguard such liquidity in the presence of exogenous disruptions.

As noted earlier, central banks around the world (including the RBA) are trying to address the issues raised by the illiquidity in the RMBS market. But we believe that the gravity of these problems, and the failure thus far of central bank action to remedy them, warrant a more a more systematic policy response.

In the US, the now privatised GSEs, Fannie Mae and Freddie Mac, and in Canada, the government-owned CMHC, were established with the same mandate in mind. Indeed, to quote the US GSE regulator, a central function of these agencies is to "stabilize mortgage markets and protect housing during extraordinary periods when stress or turmoil in the broader financial system threaten the economy."[48]

Today, the US GSEs are responsible for funding and/or securitizing roughly 40% of the more than US$6 trillion worth of pooled home loans. They have an even more crucial role in the current environment in protecting against a wholesale collapse of the US home loan industry, which would undoubtedly represent a risk in the absence of the liquidity support the GSEs are able to supply. Along similar lines, the CMHC in Canada has demonstrated its importance to the stability of the Canadian home loan market by successfully securitising over C$11 billion worth of home loans in the middle of the capital market crisis.

Our contention is that the Commonwealth Government could guarantee the credit worthiness of a similar Australian government agency, referred to here as 'AussieMac,' thereby lending it Australia's AAA credit rating. This would allow AussieMac to issue substantial volumes of extremely low cost bonds into the domestic and international capital markets. The funds raised through issuing these bonds could be used to acquire high-quality AAA-rated Australian home loans off the balance-sheets of lenders. AussieMac would therefore serve to guarantee liquidity in the Australia home loan market in the event that other private sources of capital were to supply insufficient funding, such as is currently the case. In the near- to medium-term we would expect AussieMac to be privatised with the result that its debt would be taken off the government's own balance sheet.

For the avoidance of doubt, AussieMac would not be an originator of mortgages like the CBA. Instead, it would issue AAA-rated bonds and use these funds to acquire conforming, high quality home loans (that satisfy its credit criteria) from Australian lenders that wish to avail themselves of such liquidity. These assets could then be either retained on AussieMac's balance-sheet or sold into the primary RMBS market. In addition, AussieMac would not be mandated to purchase riskier 'non-conforming' or sub-prime loans.

But AussieMac would not operate without constraints. Fannie Mae, Freddie Mac and the CMHC have operating rules that we would expect to apply in the Australian context. Those constraints could include, amongst other things: (i) a limitation of

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47 The tendency of financial market participants to overreact to various events is well documented in the behavioural finance literature (see Barberis and Thaler (2001) for a review)

48 See http://www.ofheo.gov

activities to the primary and secondary securitisation markets; (ii) the mortgages that are purchased or guaranteed are limited in value (perhaps to, say, 85% of the average housing cost in Australian capital cities); and (iii) the debt issued by AussieMac would have to conform with overall public sector debt constraints. As discussed earlier, one could also explore the use of AussieMac to promote affordable housing options for low-income earners where there is private-market failure to do so.

AussieMac's liquidity guarantee could act to restore and preserve competition in the Australian mortgage industry by enabling lenders that originate high credit quality home loans to always access a readily available source of finance. In this way, the establishment of an AussieMac-like agency could immediately resolve the market failures currently evidenced in the primary RMBS market and help to insulate Australian households and the financial system at large from exogenous global shocks that have nothing to do with the integrity of the Australian economy.

The presence of an agency such as AussieMac could have other important benefits. As noted earlier, numerous academic studies have found that the participation of Fannie Mae and Freddie Mac in the US home loan market has resulted in the reduction of mortgage rates by 25-50 basis points more than would have been the case in their absence. Of course, this analysis presupposes that the primary and secondary US mortgage markets would have emerged without the presence of the US GSEs in the first place (which were effective duopolists for many decades), which is a separate and tenuous assumption in and of itself. To the extent that AussieMac issues long-dated fixed-rate paper it could also assist in the development of 30-year and 40-year fixed-rate home loans in Australia, which are such a critical element of the US market.

But we do add a note of caution. Our suggestion here is that an AussieMac style intervention be given serious contention. But such interventions are not without costs and practical difficulties. Specifically, how do you ensure that AussieMac appropriately evaluates the risk of the loans that it acquires from lenders? It would, of course, be important for AussieMac to only purchase high credit quality assets, as is the case with overseas GSEs (ie, and not encourage riskier lending). It would be equally important to safeguard against an overall fall in the credit risk standards employed by the mortgage providers that seek to securitise loans given the ostensible assurance of the off balance-sheet liquidity supplied by a GSE.[49] As a consequence, the activities of AussieMac would have to be constrained. Of course, with the consolidation of lending amongst major banks that are considered 'too big to fail,' our housing finance system is already attracting that problem.

What's at Stake

In summary, Australia's financial system is facing important near-term challenges that may see credit for both home loans and small-to-medium enterprises rationed. The capital market crises that have brought about these problems are also irreversibly altering the competitive and pricing dynamics in Australia's housing finance industry. While the underlying forces that have caused these changes are in no way the responsibility of Australian lenders, this fact has not shielded them from the adverse consequences associated with the effective closure of key securities markets.

It is useful to highlight here that we are not merely talking about 'thin trading' or a significant reduction in liquidity. There have been precipitous falls in the volume of activity, and eventually the complete closure of, the primary residential mortgage-backed securities market, which would normally see issuance in excess of $50 billion per annum. The issue is that this market has become a critical bedrock of the way in which Australian financial institutions, and the households to which they lend, originate funding.

Complete disequilibrium of this kind, which is almost entirely attributable to ructions in overseas markets, subjects Australian households, financial institutions, and eventually the economy at large to potentially catastrophic risks.

To this end, we have recommended exploring the establishment of a permanent Australian GSE, which by leveraging off the Commonwealth's secure credit rating, can serve as a liquidity provider of last resort in situations where key markets face failure. We argue this not because it will solve the current financial crisis. Instead, we see it as restoring the conditions that generated a decade long change in the structure of competition in Australia's primary lending markets. In the absence of intervention, competition could be permanently eroded in those markets with adverse implications for consumer costs,

[49] For a discussion of these issue and how they can be dealt with see Stiglitz, Joseph E., Jonathan M. Orszag, and Peter R. Orszag (2002), "Implications of the New Fannie Mae and Freddie Mac Risk-based Capital Standard," *Fannie Mae Papers* 1(2), 1–10.

choice and flexibility. The consequences for investment both in smaller enterprises and also the housing stock are too important to ignore. It is that long-term microeconomic issue that needs immediate government attention before it is too late.

Frequently Asked Questions

Since the public launch of our AussieMac proposal in March 2008, we have received a large number of questions from government, the media and private sector participants. In this section we provide summaries of some of the responses that we have supplied to the questions we received. We also offer a critique of one independent review of our paper, which reflects some of the key questions that have emerged with regard to our proposal.

1. Will AussieMac increase moral hazard by encouraging more relaxed lending standards?

Any objective analysis will show that there is no reason why this should be a risk. As we outline in our paper, AussieMac would be limited by its charter to only purchasing very low-risk, high credit quality 'prime' home loans from Australian lenders (ie, either off the balance-sheets of banks or out of the warehouse facilities provided by non-bank lenders). Unless these lenders originate assets that comply with AussieMac's rigid credit criteria, the assets would not be eligible for purchase. As discussed below, there is a wealth of highly reliable information to facilitate detailed credit risk analysis on Australian home loans. Consequently, so long as AussieMac imposes its credit requirements, there should be no deterioration in lending standards.

Note also that AussieMac would not be 'guaranteeing' Australian home loans. It would be purchasing conforming, low-risk mortgages on its own balance-sheet using funds raised with its AAA sovereign-backed credit rating.

It would be straightforward for AussieMac to set its credit criteria much like any other lender. In Australia, there is exceptionally detailed mortgage and mortgage default data available for the trillions of dollars of Australian home loans that have been originated by Australian banks and non-bank lenders over the last 40+ years.

Mortgage insurers, such as PMI Mortgage Insurance and Genworth, have been insuring the mortgage default risk underpinning Australian home loans since 1965. The AAA-rated or AA-rated mortgage insurers have access to all of this default information, which AussieMac could harness alongside other credit data (such as that provided by VedaAdvantage, which is the key Australian credit bureau) to set its required credit criteria. (Significant default data is also published publicly by the major ratings agencies, such as Standard & Poor's.)

One of the reasons that Australia has one of the lowest rates of mortgage default of any country in the world is because of the strict credit standards imposed by lenders. For example, the mortgage insurance claims frequency on insured Australian home loans has averaged less than 0.7% since 1965 (ie, this is the proportion of loans that the insurers actually have to pay out on). The latest S&P scheduled payment 30 days or more arrears estimate on prime Australian RMBS was only 0.93%, which is a fraction of the circa 4% 30 days arrears on prime US home loans and the 16% + arrears rates on US sub-prime.

Importantly, AussieMac could also mortgage insure away the default risk underpinning any prime home loans that it acquired at relatively low cost. This is standard practice in the Australian mortgage and RMBS securitisation markets, and could be facilitated by either PMI Mortgage Insurance or Genworth, who currently mortgage insure more than $400 billion worth of prime Australian home loans. AussieMac could achieve this in one of two complementary ways: (1) it could insist that all home loans with LVRs greater than 80% of the value of the property are mortgage-insured at the cost of the borrower, which is standard industry practice; and (2) it could then take out 'portfolio-wide' insurance which would be a supplementary cost that it would pay to PMI or Genworth. Note that PMI and Genworth are regulated by APRA and capitalised independently from their parent entities with AA and AAA credit ratings, respectively.

2. Will AussieMac crowd-out private sector participants?

It would be quite easy to place regulatory constraints on AussieMac's day-to-day activities to ensure that it did not disintermediate any meaningful private sector activity.

For example, except during periods of demonstrable market stress, you could limit AussieMac to supplying no more than, say, 5%-10% of the market liquidity (and note that this would be liquidity only for the purposes of acquiring prime RMBS that conformed with AussieMac's strict credit criteria).

This should ameliorate any artificial distortions brought about by AussieMac's participation in the RMBS market during the ordinary function of that market. It would also minimise day-to-day operating costs, notwithstanding that AussieMac should be a cash-flow positive concern with no direct government subsidies (eg, like CMHC in Canada).

AussieMac's chief mandate would be to serve as a liquidity provider of last resort to a key component of the financial system (ie, the securitised RMBS market) in the event of these once-every-ten-years external shocks—which appear to be occurring with increasing regularity given the ever-more integrated nature of financial markets—that result in the closure of critical economic markets for extended periods of time to the potentially irreversible detriment of Australian financial institutions and the households they service.

3. If the private sector cannot price these securities, why would AussieMac be able to? And shouldn't we focus on improving the transparency of these structures?

There is no issue with the transparency, information accessibility, or capacity of investors to price securitised prime Australian home loans, which are very vanilla in structure. Securitised AAA Australian RMBS pools are direct principal and interest pass-through vehicles where investors have complete visibility on the characteristics of all assets in the portfolio both prior to buying those assets and during the period that they hold the assets. There is a wealth of data reported on a monthly basis to investors on the performance of these assets right down to the individual asset level (if so required). In fact, it would be hard to improve the transparency of AAA Australian prime RMBS pools.

Any calls for improved transparency of information or structures is confusing two independent issues: the complexity and obscurity of the SIVs and CDOs that invest in securitised Australian home loans, and which have been casualties of the sub-prime crisis, and the extreme transparency and simplicity of the latter pools—ie, tranches of AAA-rated Australian RMBS. Many investors, such as super funds, global pension funds, and fixed income managers, invest directly into the AAA RMBS pools, which have become a partial surrogate for the Australian government bond market.

4. Will AussieMac help non-conforming lenders like Bluestone and Liberty?

Not ordinarily. Bluestone and Liberty are primarily non-conforming lenders whose assets would not normally satisfy AussieMac's credit criteria. They represent a tiny proportion of the Australian home loan market (ie, less than 1% according to the RBA) and have little consequences for competition or pricing.

5. What other benefits could AussieMac deliver?

One interesting point is that AussieMac's day-to-day role could be very valuable in the context of providing additional liquidity to the Australian government bond market, which is a major issue for the capital markets given that it has recently shrunk so much (the existence of a government bond market is critical to institutions for hedging and risk management purposes, amongst other things). Assuming that it remained a public agency (like the CMHC in Canada) AussieMac's bonds would be incredibly low risk, AAA-rated government debt. The Canada Bonds that the CMHC issues serve exactly the same purpose in that market.

Please note that some responses to critiques and questions will be posted from time to time at the Core Economics blog (http://economics.com.au/index.php?s=aussiemac).