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Australian residential mortgage-backed securities update

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The Australian mortgage-backed securities (MBS) market dates back to 1984, with the issuance of a number of small private placement securitisations. In 1986, the market gained some momentum with a government sponsored programme, FANMAC, established along the lines of the US mortgage agency Fannie Mae. But the FANMAC fixed-rate pass-through programme did not survive the massive mark-to-market mortgage volatility experienced under the low interest rate (and high prepayment) environment in Australia during the late 1980s, with the entity unwinding operations in 1991. Private sector MBS quickly replaced the Australian government mortgage programme, yet securitisation issuance remained domestic until mid-1990s. The real catalyst for change came in 1997, when foreign investors were granted exemptions on bond interest-withholding tax, thus effectively opening the offshore MBS markets to Australian mortgage lenders.

The Australian residential mortgage-backed securities (RMBS) market has seen strong growth in volumes over the last decade, not unlike other jurisdictions. The growth in Australian RMBS volumes stems from both the expansion of underlying mortgage lending and the greater penetration of securitisation as a financing tool by banks and non-bank lenders. Non-bank lenders rely particularly on securitisation for funding, making up around 20 per cent of the mortgage market in recent years. Banks have also increasingly tapped the RMBS market in recent years, given its competitive cost of financing asset growth coupled with the benefits of funding diversification, as well as for risk and capital management purposes. RMBS issuing banks can be split into two broad categories: 'universal' type banks that originate mortgages on balance sheet and subsequently use securitisation as a funding tool among other

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channels, and 'securitisation banks', which use RMBS more comprehensively. In the latter case, the institutions are licensed as banks but the mortgages are often directly originated in the legal name of the trustee to facilitate the securitisation process. (Examples include Macquarie Bank and Members Equity Bank.) Non-bank securitisation platforms use a similar structural template. Most Australian lenders typically retain servicing functions in-house, whether the loan is performing or non-performing. Outsourcing of the day-to-day mortgage servicing is very limited, with only a few (mainly smaller) lenders opting to use third-party servicers.

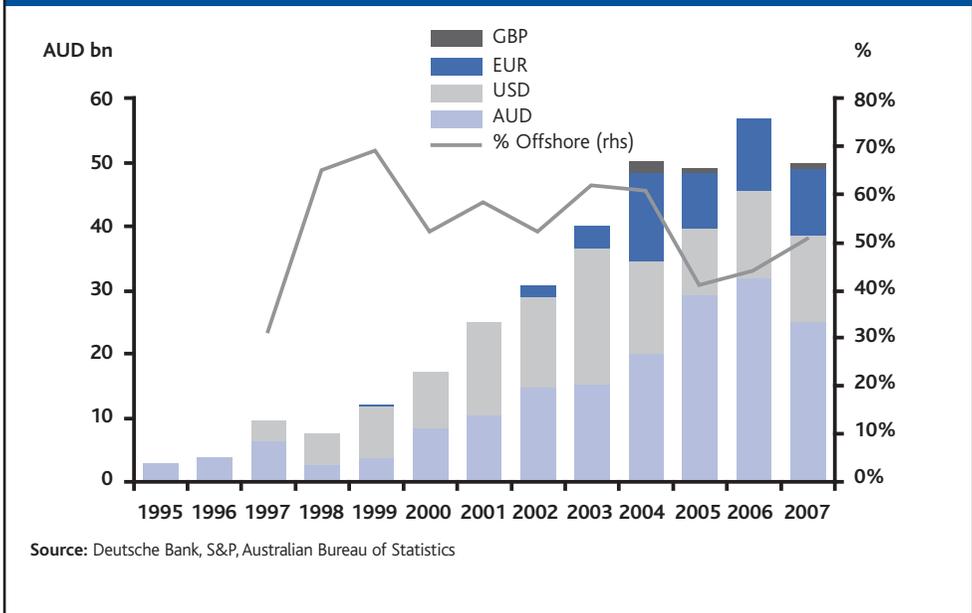
A unique feature of the Australian RMBS market has been the extent to which bonds have been sold in the offshore markets. In recent years, the offshore Australian RMBS market has actually exceeded domestic volumes and in 2007 such offshore volumes accounted for around half of total issuance. Taking into account all deals with at least one euro or pound sterling tranche, we find that Australia is the fourth largest jurisdiction for

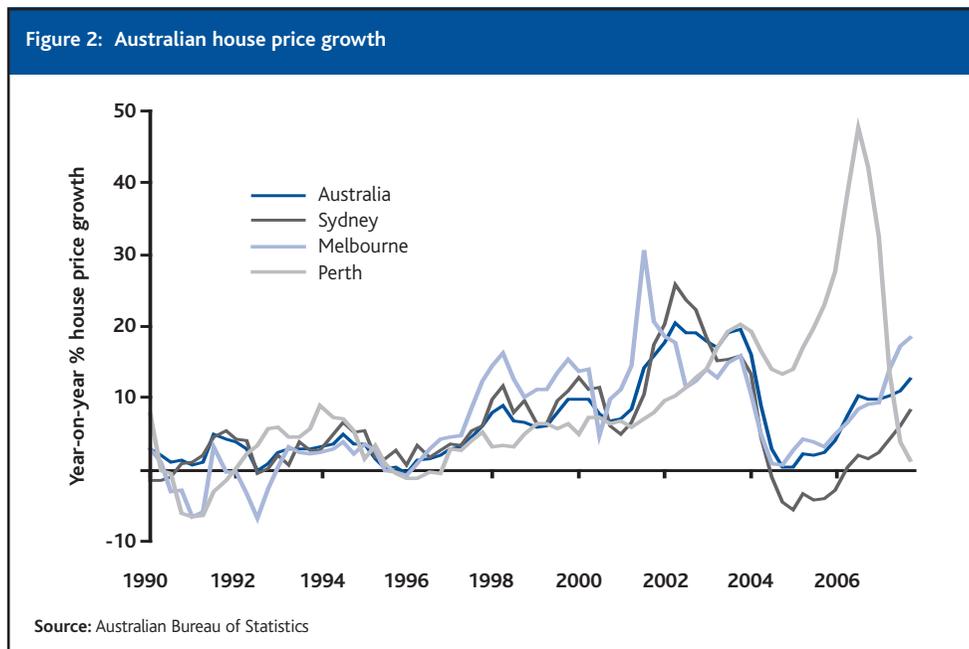
European currency denominated RMBS volumes in 2007 with €21 billion in bonds printed – only just shy of full-year 2006 volumes. Last year also saw an increase in sizeable RMBS deals from larger banks such as Westpac and Commonwealth Bank of Australia.

Mortgage credit performance remains strong

Australia's economy has performed exceptionally strongly over the last 16 years, with GDP growth averaging 3.6 per cent since 1992. In more recent years, economic growth has been boosted by commodity exports, driving the currency to reach a 23-year high against the US dollar recently. Labour market conditions remain very tight, with a participation rate at its highest ever and unemployment at its lowest level in 33 years. Against this solid economic backdrop, inflationary risks - particularly in non-tradable services - have compelled the Reserve Bank of Australia to push interest rates up to 7.25 per cent, the highest level of any major developed economy.

Figure 1: Australian primary RMBS volumes

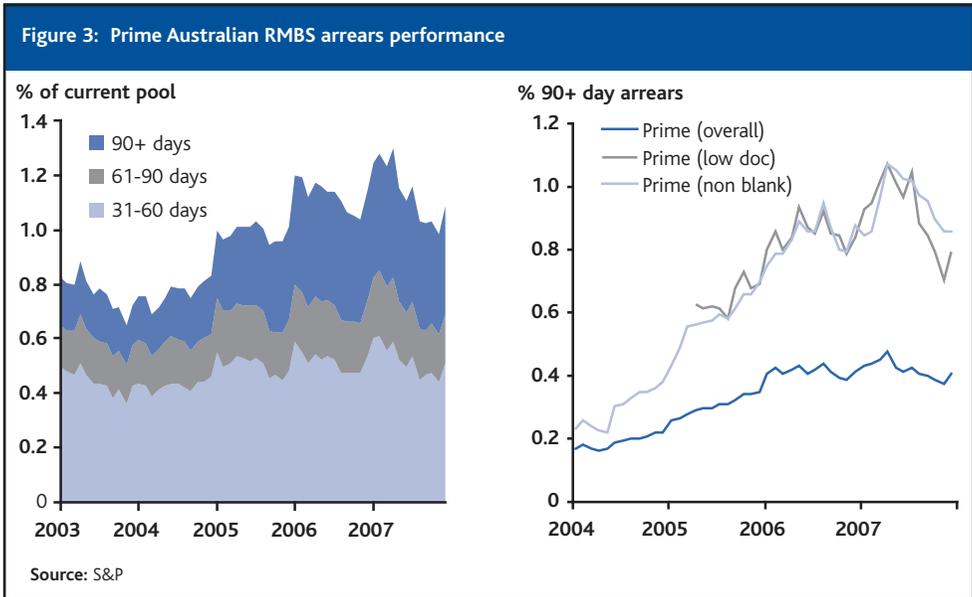




The underlying housing market has seen strong growth through most of the decade-long economic upswing, except for a two-year period from 2003, which was characterised by a 'soft landing'. Regional disparities are worth noting, however. For example, Sydney witnessed a much sharper slowdown in 2003 to 2005 than other regions with dominant commodity-based industries. Current trends suggest that the momentum in the housing market upswing will continue to be fuelled by the strong economy, buoyant earnings and tight labour market, coupled with more structural or supply factors related to low dwelling investments and stagnant residential building approvals.

Australian RMBS continues to show solid credit trends, with arrears remaining at relatively low levels. Over the 2004 to 2006 period, there was an uptick in late stage arrears (90+days) as shown by the SPIN index, although over 2007 this has shown some stabilisation. Total arrears in prime RMBS as measured by the index currently stands at 1.15 per cent (of which 0.42 per cent is in the late stage bucket), having fallen

from a peak of 1.3 per cent in April 2007. This arrears performance looks favourable when compared to total delinquencies in the UK prime mortgage market (2.6 per cent total arrears with 0.76 per cent in the late stage bucket, on average), and certainly with any US mortgage sector. Drilling down further into the data shows that low-doc borrowers, such as self-employed, part-time and recent immigrants, have been a greater driver in the increase in delinquencies compared to full documentation loans, in which arrears have exhibited a more stable trend. But again, comparisons with other jurisdictions shows the continued outperformance of Australian low-doc loans. If we use the United Kingdom's Bank of Scotland Mound Funding as a comparative proxy (the MFPLC trust comprises around 55 per cent of self-certified prime borrowers), we note that total arrears in the trust stands at 6.2 per cent compared to 2.2 per cent in Australia, with the late stage bucket at 2.6 per cent and 1 per cent, respectively. Notably also, there have been no charge-offs on any low-doc RMBS loan to date, taking into account the



benefit of lenders' mortgage insurance (LMI) cover. The current stronger economic backdrop aside, other explanatory factors that underpin the stronger Australian prime mortgage low-doc trends include the requirement that loan to value (LTV) ratios are capped at 80 per cent, while borrowers must prove two years of self-employment with requisite tax file registration details, thus limiting the scope for any unscrupulous or fraudulent loan applications.

Non-bank RMBS portfolios also show higher-than-market arrears, although this is more likely to be associated with greater-than-market shares of low-doc loans rather than any servicing or underwriting weaknesses. Defaults among Australian RMBS have also remained very low and, because of the ubiquity of lender mortgage insurance (discussed in more detail below), losses after claims are virtually zero. Indeed, to our knowledge, there have been no cases of loss crystallisation in any securitisation of prime mortgages in Australia. One of the key reasons why mortgage payment behaviour remains benign is that Australian borrowers remain liable for any shortfall between the

mortgage and the realised value of the repossessed property - that is, the consumer bankruptcy framework does not generally allow for debt forgiveness.

Product and borrower characteristics

The Australian mortgage market is made up predominantly of fully amortising variable rate loans with first-ranking liens as security. The dominance of variable rate product makes the Australian market comparable to the mortgage markets in the United Kingdom, Ireland and Spain, but similarities in terms of product types ends there. Most Australian mortgages include a redraw feature, whereby borrowers who have previously prepaid can redraw their mortgage up to the scheduled leverage. Flexible mortgages are very popular in Australia compared to Europe, where in markets such as the United Kingdom and Spain redraw features on flexible loans have not been exercised extensively. Table 1 summarises some of the main characteristics of the Australian mortgage products.

Owner-occupied mortgage interest payments are not tax deductible in Australia, unlike in, say, the

Table 1: Typical features of prime Australian mortgage loans

Term	25 to 30 years
Mortgage lien	First charge over residential property
Interest rate	Typically floating rate but can be fixed for one, three or up to 10 years. Australian rates are set at the discretion of the lender
Method of repayment	Annuity-like product, but may include an initial interest-only period
Redraws and further advances	Borrowers are allowed to re-borrow principal they have previously prepaid ahead of schedule. Lenders generally allow borrowers to apply for further advances but subject to new credit approval
Payment holidays	For bank lenders, a borrower who has previously prepaid is not required to make mortgage payments unless the loan balance exceeds the scheduled amortisation balance ('payment-holiday' feature).
Mortgage insurance	Covering 100 per cent of loan balance and repossession costs. All loans originated by non-banks and securitisation banks are insured. Balance-sheet lenders may only insure loans with LTVs of greater than 80 per cent. Non-conforming mortgage loans are not covered by LMI
Prepayment penalties	Prepayment fees do not generally apply on floating rate mortgages but exist on fixed-rate products or loans bearing a introductory discounted rates – penalties are based on economic break costs

Source: : Deutsche Bank

Netherlands or the United States. But given that interest earnings on savings accounts or investment income are fully taxed, there is a relatively strong tax incentive for borrowers to channel savings into mortgage repayments. Indeed, this 'arbitrage' involving mortgage prepayments is widely advertised in Australia and as a result prepayments tend to be higher than most other European mortgage markets (the United Kingdom excepted).

There is no strict definition of 'non-conforming' mortgage loans in Australia, similar in that sense to the United Kingdom. Thus, 'non-conforming' is – by default rather than design – any mortgage loan that falls outside of the criteria normally used by mainstream lenders, or what is more commonly termed as standard loans. Such loans are also usually defined as 'outside LMI eligibility criteria'.

Prime borrowers who do not conform to standard lending criteria are broadly classed as Alt-A borrowers, a term borrowed from the US market. Alt-A loans in Australia can include 'low-doc', 'jumbo' and high LTV loans, characteristics of which are highlighted in

Table 2. Low-doc mortgages are loans made available to borrowers that are unable to provide sufficient income documentation, which would include the self-employed, part-time workers and recent immigrants. (Low-doc loans resemble UK self-certified product.) Jumbo mortgage loans, as the name suggests, are mortgages that exceed the ceiling normally prescribed by standard lenders (usually A\$1 million). Products such as low-doc and jumbo loans are usually termed 'equity secured', as underwriting and origination are influenced by the equity held in the property rather than the borrower's creditworthiness. High LTV mortgages are typically defined as loans with LTVs in excess of 95 per cent (and up to 110 per cent), usually originated to high-income borrowers for debt consolidation purposes or by property developers which provide full financing on new build properties.

Sub-prime borrowers in Australia are defined as borrowers with an adverse credit history, on account of previous bankruptcies and/or court judgments against non-payment or default. Unlike in certain

Table 2: Australian non-conforming mortgage products

Non-standard underwriting criteria	Alt-A	Loan to overcome a loan-policy related failure (older borrower, non residents)
	Jumbo	Loan beyond the cap applied for prime mortgages of usually A\$1 million
	High LTV	Loan with LTVs in excess of 95 per cent (up to 110 per cent); usually used by income-rich but capital poor borrowers or for debt consolidation
Limited income history	Low-doc	Borrowers having good credit history but are unable to provide sufficient income documentation (self employed, part-time, casual, recent immigrant)
	Equity secured	Product often used to replace income verification. Lending is purely against assets and not the credit of the borrower or business
Impaired credit history	Sub-prime	Loan intended for credit impaired borrowers

Source: Deutsche Bank

other mortgage markets, second-lien Australian home loans are rare and generally are not securitised. Notably also, investment mortgages in Australia do not fall within the non-conforming universe, unlike in the United Kingdom, where we believe the categorisation of 'buy-to-let' mortgages remains unique in this regard. But similar to the United Kingdom, long-term data has shown that investment

loans have outperformed owner-occupied mortgages in the Australian marketplace.

Australian RMBS structure

Most Australian offshore MBS are structured as floating rate pass-through securities, with capital structures normally comprising senior (AAA/Aaa rated) bonds with a single subordinated tranche. Average lives for the

Table 3: Structure and typical features of Australian RMBS

Capital structure	AAA / AA capital structure
Securitisation vehicle	Trust structure, with new series constituted under the master trust for each programme. Each series is usually separate, no collateralisation between the trusts
Credit Enhancement	Subordination (two to four per cent of AA notes), excess spread and LMI cover
Liquidity facility	In addition to 'principal draw', whereby principal collections can be used to fund liquidity shortfalls, deals typically include liquidity facilities
Redraw facility	Redraws are primarily funded through principal collections, some structures include liquidity facilities to fund redraws or may have provisions for the issue of 'redraw notes'
Repayment profile	Sequential-pay structures generally. Principal repayment of subordinated notes in some MBS issued by bank balance sheet lenders (only) may be locked out until subordination doubles from initial (closing) levels.
Substitution	Certain deals include substitution periods of up to 24 months
Notes maturity	Typical average life of three years for the senior notes and up to six years for the subordinated notes
Clean-up/step-up calls	Ten per cent of original loan balance / step-up and call options generally structured into MBS issued by securitisation banks or non-banks only
Tax call	Withholding tax call option

Source: Deutsche Bank

senior tranches vary between two to three years, typically based on 25 to 30 per cent conditional prepayment rate prepayment speed assumptions, and up to six years for the subordinated bonds.

There is no explicit securitisation legal framework in Australia, which is a common-law jurisdiction like the United Kingdom. And similarly to UK securitisations, the Australian MBS structure relies on the equitable transfer of all present and future receivables to the receivables trustee, which in turn holds the assets on trust for the benefit of investors and for the seller (in respect of certain subordinated payments). This equitable assignment is synonymous with a true sale. The trustee may be required to perfect its equitable interest in the mortgage loans under certain circumstances (deemed 'title perfection events' in Australian MBS language, and including the insolvency of the originator), which amounts to transferring the legal title of the loans from the lender of record to the trustee. By acquiring the legal ownership of mortgage loans, the trustee has the legitimate right to initiate direct enforcement action on borrowers as necessary.

Non-bank lenders and securitisation banks usually originate mortgage loans in the legal name of the trustee in order to circumvent any issues related to perfection of title. (The trustee therefore benefits from legal ownership from the outset.) Macquarie Bank (PUMA), Members Equity (SMHL), Interstar, Australian Mortgage Securities and Resimac count among such lenders.

Set-off or counterclaim risk may arise in Australian MBS if the seller of the mortgage loans is a deposit-taking institution and the loans have been equitably assigned to the trust. That is, if the seller becomes insolvent, borrowers may seek to offset payments due against deposits held by the bank. The risk is usually mitigated in Australian MBS by explicit terms in the loan agreements stating that the loan payments are required to be free from set-off.

Understanding the risks (or lack thereof) posed by mortgage insurance

LMI covers almost all Australian mortgages, with the exception of non-conforming loans. Mortgage insurance,

which was introduced in the mid-1960s, is a novel aspect of the Australian market – there is no mortgage jurisdiction in Europe where credit insurance plays an equally extensive role. Mortgage insurance insulates lenders against the risk of loss, covering 100 per cent of the loan balance and all reasonable expenses incurred during repossession and forced sale proceedings. LMI providers also guarantee timely payment of interest and scheduled principal payments on the loans for up to 24 months or up to the sale of the repossessed property, if earlier. An important aspect of this insurance protection is that it is relatively difficult to deny a claim in Australia. Not only must the lender have failed to disclose relevant information about the property and/or the borrower, but this must also give rise to a material loss for the insurer. Following a wave of consolidation in the Australian LMI industry, the market is now largely shared between two providers: GE Capital Mortgage Insurance Company Ltd (Genworth/GFMI, Aa2/AA/AA and PMI Mortgage Insurance Ltd, Aa2/AA/AA (all ratings on negative watch). Certain captive LMI providers owned by mortgage lenders also operate in the market, but issuers generally obtain a guarantee or reinsurance from GFMI or PMI. St George Insurance Pty Limited, the captive insurer of St George Bank, is an exception in this respect.

In a typical Australian RMBS, senior tranches benefit from subordination (two to four per cent), LMI cover and excess spread. Subordinated tranches are normally rated

Table 4: Fitch and S&P adjustment for LMI credit rating in sizing credit enhancement

Rating of LMI provider	Credit given to mortgage insurance	
	Fitch	S&P
AAA	100%	100%
AA	75%	75%
AA-	68%	75%
A	50%	50%
BBB	25%	25%
BB	0%	0%

Source: Fitch, S&P

in the AA category, directly commensurate with that of the LMI provider. From a credit perspective, Australian RMBS is unique, given that credit exposure is overlaid with mortgage insurer risk, to varying degrees depending on a number of factors. Put differently, the sizing of credit enhancement for the senior notes is not only dependent on collateral characteristics; unlike in many other mortgage securitisation markets, the LMI provider's rating quality also plays an important role. Rating agencies give credit to the insurance provided by LMIs under well-established credit models that apply haircuts depending on the strength of the insurance provider (see Table 4).

LMI provider rating volatility can therefore have some impact on ratings of all insured Australian RMBS (essentially, all prime loan types irrespective of documentation or lender type, with the sole exception of subprime), but in practice negative rating actions taken on an LMI have only ever affected subordinated bonds. The impact on subordinated bonds is normally direct, at least in most legacy Australian prime RMBS. However, the effect of an LMI downgrade on the senior bonds depends on a number of factors that determine the deal's exposure to the insurer – namely, the weight of portfolio exposure to the downgraded LMI (RMBS loan pools will typically have a mix of LMI exposures), the severity of the LMI downgrade, the ratings cushion sized into the senior bond credit enhancement on day one and the extent of deleverage at the time of the LMI downgrade. For the most part, Australian senior RMBS have been sufficiently de-coupled from the rating of the LMI so as to withstand negative rating actions taken on the insurers.

As a case in point, the placement by Standard & Poor's of the ratings of PMI on watch negative in late 2007 resulted in the placement on watch of a total of 205 subordinated tranches of Australian and New Zealand RMBS (although some were later removed from negative watch). PMI's negative watch has not resulted in any rating action on senior tranches as yet and is unlikely to do so if the severity of the insurer's downgrade is only of a single notch. Additionally, in seasoned deals, credit support will have built up as the deal de-leverages, thus augmenting this buffer further. However, insurers can take measures to

mitigate the impact of negative rating actions on RMBS, to include entering into external reinsurance contracts. There is precedence for such mitigating actions by insurers.

Notably, however, an interesting development we have seen is that the recent 'post-credit crisis' Australian RMBS vintage have been structured to be ratings-delinked from the LMIs at day one. In other words, senior-sub credit enhancement has been typically sized without any benefit given to lender mortgage insurance. (Thus, LMI plays no role in supporting or maintaining the ratings of the RMBS). These deals are therefore effectively over-enhanced relative to earlier vintages, in a gambit to make them more attractive to investors. We expect such over-enhancement to remain a feature of the Australian RMBS market as long as structured finance remains a buyer's market.

Relative value consideration in the post-crisis market

Senior Australian RMBS has historically traded on top of or through comparable prime mortgage paper from the United Kingdom, Spain and the Netherlands, and at tighter levels to RMBS from non-core European markets. Euro Australian RMBS has traditionally benefited from relatively deep liquidity, with secondary two-way volumes comparable to other benchmark sectors such as UK RMBS or credit cards. However, the 2007/2008 credit crisis has taken a disproportionately heavy toll on Australian offshore RMBS, with one of the reasons arguably being the dislocation in demand technicals following the collapse of the structured investment vehicle (SIV) bid. (SIVs were traditionally large buyers of Australian mortgages.) The spread basis between senior (AAA) prime Australian and UK RMBS, for example, widened significantly – this unprecedented degree of yield pick-up relative to other vanilla mortgages has left Australian RMBS trading at the cheapest level in recent memory.

Fundamentally at least, we do not see sufficient justification for this yield basis between Australian and other generic prime RMBS. Australian mortgage collateral trends remain solid, while the household and housing economic backdrop is patently superior to many other,

often 'overheated' housing markets such as the United Kingdom, Ireland or Spain. Moreover, unlike many other mortgage markets, there is little evidence that lenders have compromised underwriting or origination practices in recent years. Crucially also, teaser or discounted rate loans are not a standard feature of the Australian mortgage market unlike, say, in the United Kingdom or United States.

In our opinion, there are two key considerations for Australian RMBS following the recent crisis, however. One such key issue at this juncture – as in almost all other major RMBS jurisdictions currently – is lender vulnerability to the run on the structured finance (and broader bank-related credit) market. Non-bank platforms (or, indeed, any monoline mortgage business model), which are heavily reliant on RMBS for term funding and asset-backed commercial paper/warehouse facilities for shorter-term financing, are by definition incrementally exposed to the recent credit crisis, with the weaker

outliers likely in particular to come under pressure given the lack of alternative funding sources. For example, RAMS Home Loans, a non-bank mortgage market player, was a prominent casualty of the recent credit squeeze when it failed to refinance its US short-term debt in August. The second key consideration at this stage, in our opinion, is the potential volatility in LMI creditworthiness, noting that both of the two main mortgage insurance providers have exposure to the US housing market. But as we have argued above, the risk to senior Australian RMBS ratings looks remote, lest we see an immediate, sharp and systematic erosion in LMI ratings. And even under such an extreme scenario, both adequately seasoned bonds (pre-2006 vintages) and the current, post-crisis vintage should prove entirely immune.

This chapter is taken from previously published Deutsche Bank research.