

Recent developments in securitisation

The Australian securitisation market has become dislocated as part of the current credit market turmoil and investors' reappraisal of the risks associated with structured credit products. Prior to this, the securitisation market in Australia had grown rapidly, reflecting strong demand for housing finance, issuance by regional banks and the changing composition of lenders.¹



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GLOBALLY, SINCE MID-2007, there has been a widespread reappraisal of the risks associated with investing in structured credit products. As has been the case overseas, the Australian securitisation market has been dislocated, with investors cautious about participating in this market. As a result, issuance of asset-backed securities (ABS) has been limited and spreads have widened significantly. Financial institutions that relied on securitisation for funding have scaled back their lending and the process of disintermediation, which was evident throughout the past decade, has been partly reversed. Nonetheless, there have been signs that conditions in the securitisation market have improved recently.

This article compares the securitisation market to other areas of the Australian debt market, discusses the characteristics of ABS, particularly residential mortgage-backed securities (RMBS), and summarises recent developments in securitisation.

Structure of the Australian debt market

In broad terms, securitisation is the process of converting a pool of illiquid assets, such as mortgages, into tradeable securities. Typically, a special-purpose vehicle buys assets and funds these purchases by selling ABS to investors.²

In examining the securitisation market in Australia, it is useful to put it into the context of the overall debt market. ABS account for around one-fifth of non-government debt securities on issue (see Table 1). RMBS make up the majority of Australian ABS, accounting for around 60%. Asset-backed commercial paper (ABCP) is the next largest category (23%), followed by collateralised debt obligations (CDOs, 6%) and commercial mortgage-backed securities (CMBS) which account for around 5%. The remaining types of ABS are largely backed by leases, receivables and motor vehicle loans.

The rapid growth in ABS prior to mid-2007 was driven by the securitisation of residential mortgages; the

value of RMBS increased from \$74 billion in 2003 to peak at \$176 billion in June 2007.

In addition, around three-quarters of ABCP are backed by mortgages (including RMBS). ABCP vehicles are commonly used to temporarily 'warehouse' mortgages until there is a sufficient pool to issue RMBS. They may also be used for the longer-term financing of mortgages.³ ABCP issued by Australian-domiciled conduits – issued onshore and offshore – roughly doubled over the three years to mid-2007, reaching a peak of \$72 billion. (The subsequent decline is discussed later.)

While the stocks of CDOs, CMBS and other ABS outstanding have also increased significantly over the past five years – demonstrating a broadening of the types of securitisation in Australia – they still represent a small proportion of ABS. This paper focuses on the securitisation of mortgages through RMBS and ABCP.⁴

Characteristics of the securitisation market

In part, the rapid growth in securitisation reflected the strong demand for housing finance. However, this was not the full story, as the stock of securitised housing loans grew at a faster pace than housing credit; the share of housing loans funded through securitisation increased from less than 10% in the late 90s to a peak of almost 25% in mid-2007 (see Figure 1).

In large part, this reflected the change in the composition of lenders in the mortgage market following the entry of mortgage originators, who rely predominantly

on securitisation for funding. Mortgage originators became established in the mid-1990s after the fall in the general level of interest rates reduced the banks' competitive advantage in raising low-cost retail deposits. With high mortgage interest rates relative to capital market interest rates, funding mortgage lending in the wholesale market became profitable. Prior to the recent turmoil in credit markets, mortgage originators accounted for around 35% of RMBS issuance (see Figure 2).

The other main factor driving the growth in RMBS was issuance by the regional banks. The regional banks have been more active in securitising loans than the major banks, as they face higher costs in funding their balance sheets through unsecured bonds than the major banks. For the regional banks, the relative cost of funding loans through securitisation has tended to be less than through unsecured bonds. Prior to mid-2007, regional banks securitised around a third of their housing loans while the major banks securitised less than 10%. As a result, despite their smaller size, the regional banks accounted for roughly 40% of RMBS issuance whereas the major banks accounted for 20%.

Demand for RMBS from domestic and non-resident investors was very strong in the years leading up to the credit market turmoil. This was evident in the steady decline in spreads to swap on RMBS at issuance from around 40 basis points (bps) for AAA-rated tranches of prime RMBS in the year 2000 to less than 20 bps in mid-2007. In part, strong demand for RMBS – a highly rated product with relatively high yields – reflected the widespread 'search for yield' of investors over this period.

TABLE 1: Australian non-government debt securities outstanding^(a)

	Outstanding (\$ billion)		Annual growth (%)		Share (%)
	June 2007	June 2008	2003 – 2007	2007 – 2008	June 2008
Financials	655	847	17	29	70
Corporates	141	138	10	-2	11
Asset-backed securities	280	222	22	-21	18
<i>Of which:</i>					
RMBS	176	136	24	-22	11
CDOs	15	13	52	-10	1
CMBS	13	11	26	-13	1
ABCP	68	51	15	-25	4
<i>Backed by:</i>					
Residential mortgages ^(b)	43	37	19	-14	3
Other ^(c)	9	10	5	11	1
Total	1076	1206	17	12	100

Notes:

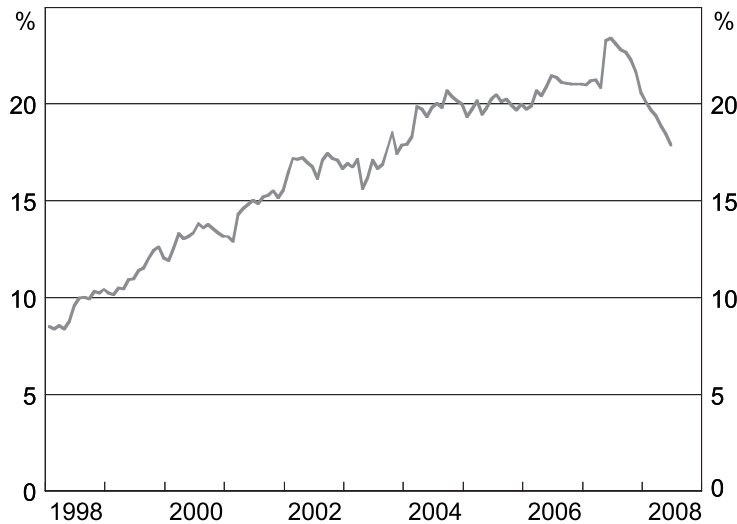
(a) Short-term and long-term securities issued by Australian entities onshore and offshore.

(b) Includes RMBS.

(c) Mainly bonds backed by leases, receivables and motor vehicle loans.

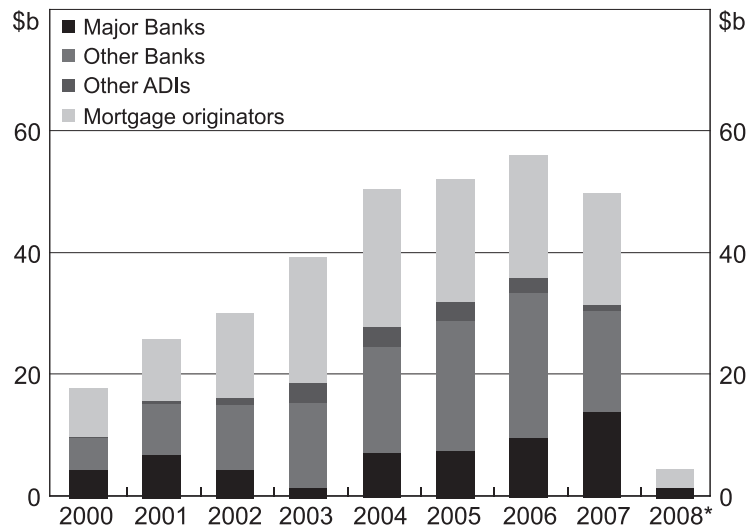
Sources: ABS; RBA; Standard & Poor's.

FIGURE: 1: Share of housing credit funded by securitisation



Sources: ABS; RBA.

FIGURE: 2: Issuers of mortgage-backed securities



* Data to 31 July 2008 Source: RBA.

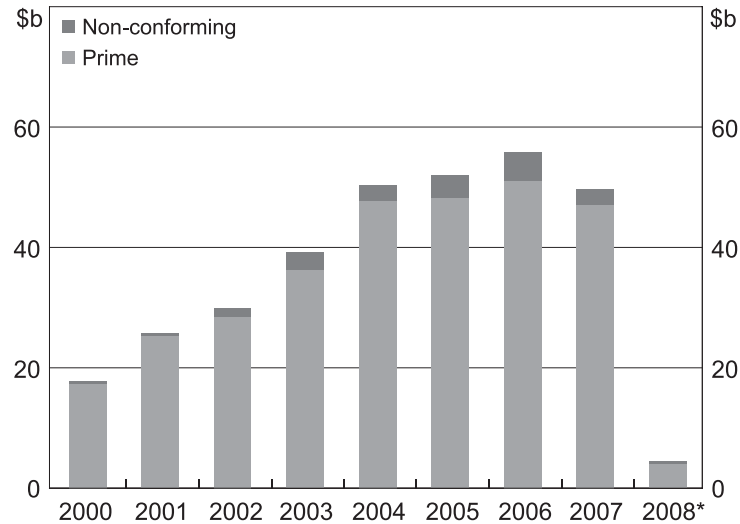
The bulk of Australian RMBS are prime (95% of issuance since 2006) – they are backed by loans that satisfy financial institutions’ standard lending criteria (see Figure 3). Nearly all loans made by banks, building societies and credit unions, as well as most loans made by mortgage originators, fall into this category. Almost all prime RMBS are covered by lenders’ mortgage insurance (LMI). This provides investors in RMBS with protection against losses by making up any shortfall if a property sale raises insufficient funds to cover the loan in the case of default. Subordination is also used to provide credit enhancement to the senior RMBS tranches; RMBS (and most other asset-backed bonds) are sold in tranches, where the most senior tranche (typically rated AAA) has first claim on the underlying mortgages, with the priority of claims decreasing to the most junior tranche.

In recent years, strong competition in housing lending led to a contraction in margins on housing loans

as well as some relaxation in lending standards. Heightened competition led to an increase in the availability of loans with little or no deposit (high loan-to-value ratios or LVRs) and low-doc loans. Low-doc loans are designed mainly for the self-employed or those with irregular incomes who do not have the documentation required to obtain a conventional mortgage. Similar developments occurred in prime RMBS issuance; low-doc RMBS increased from being non-existent prior to the late 1990s to around 10% of issuance in recent years, and more high LVR loans were included in loan pools. As investors became more comfortable with riskier loans, the risk margin required on RMBS narrowed (prior to the recent volatility in markets).

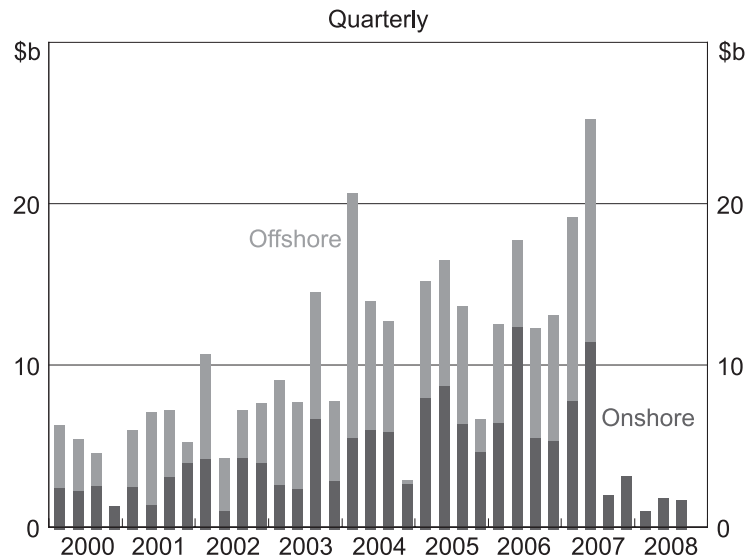
Non-conforming RMBS also became more common during the past five or so years. These RMBS are backed by loans to borrowers who have impaired credit histories or other high-risk characteristics and tend to be originated

FIGURE 3: RMBS Issuance



* Data to 31 July 2008. Source: RBA.

FIGURE 4: RMBS Issuance*



* Data to 31 July 2008. Source: RBA.

by specialist non-conforming mortgage originators. Subordination provides the main source of credit enhancement for non-conforming RMBS and they are rarely covered by LMI. Non-conforming RMBS typically have an unrated tranche which is often referred to as the 'first loss' tranche as it absorbs all losses after property sale on the underlying loans until it is exhausted, thereby providing protection to the rated tranches. This tranche is typically retained by the loan originator or sold to specialist investors that are closely associated with the lender.

The non-conforming market in Australia (which is almost entirely funded through securitisation) is the closest market⁵ we have to the US sub-prime market. However, there are some important differences. The market is much smaller in Australia with these loans only provided by a few specialist non-deposit taking lenders, whereas they were provided by a wide range of financial institutions in the US. Non-conforming loans made up

only about 1% of outstanding Australian loans in 2007, well below the 13% sub-prime share in the US. This comparison is even more stark – in terms of the share of new loans about 1–2% of loans in Australia in recent years, compared to 20% in the US in 2006.

Also, the quality of Australian non-conforming loans is higher than US sub-prime loans; at the end of 2007, less than 5% of Australian non-conforming loans were more than 90 days in arrears compared to just below 15% of US sub-prime loans. This partly reflects the tighter lending standards in the Australian non-conforming market (lower LVRs and a lack of the low teaser rates or deferred repayment options that were common in the US), as well as the low unemployment rate and strong income growth. Australian loans were also less affected by the problems associated with the 'originate and distribute' model that was common in the US, with local lenders typically retaining the first loss tranche.

Recent developments

Since July 2007 there has been considerable turmoil in financial markets. As has been well documented, the collapse in investor confidence in securities backed by US sub-prime mortgage debt led to a general reappraisal of the risks involved with structured credit markets and other risky assets.⁶

While the repricing of risk has had a negative impact on the Australian bond market generally, the securitisation market has been most affected. Since the onset of the credit market strains in mid-2007, the volume of Australian RMBS issuance has been very low; quarterly issuance has averaged \$2 billion compared to average quarterly issuance of \$18 billion during the previous year (see Figure 4). However, there have been some signs of improvement recently, with a number of public RMBS being issued, though activity is still relatively subdued. The stock of RMBS outstanding has fallen by 25% since mid-2007, reflecting the limited issuance as well as amortisation. With no offshore issuance in the past year, the fall in the stock of offshore RMBS (35%) has been greater than that of onshore RMBS (10%).

The RMBS that have been issued during the current period of volatility have been a smaller size than was previously typical (\$380 million compared to \$1.6 billion) and deals have often been tailored for specific investors. Following concerns about the mortgage insurance and bond insurance sector, there has been a recent trend towards structuring prime RMBS so that the rating of the senior tranche is independent of the credit enhancement provided by LMI.

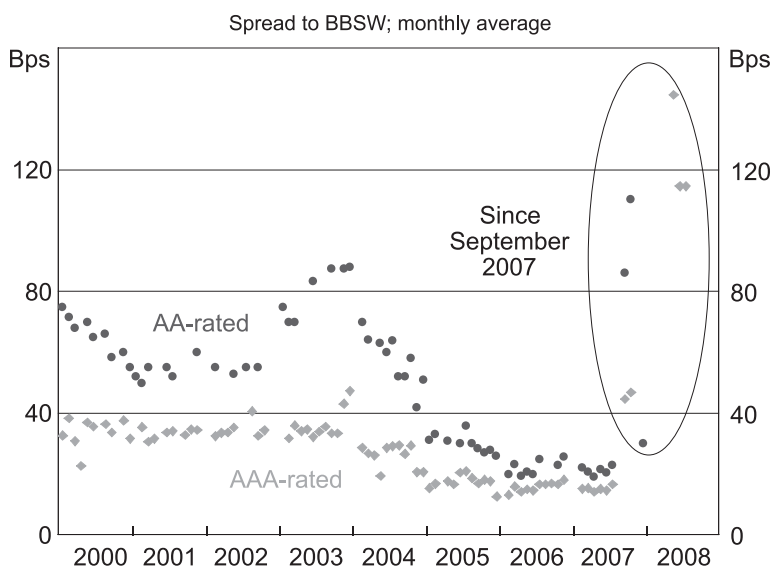
Standard & Poor's and Moody's have downgraded the credit rating of PMI's Australian operations to AA- from AA, though they acknowledged the relative strength of the local operations in the process, and Moody's has also downgraded Genworth equivalently; PMI and Genworth are the two major providers of LMI in Australia. As a result

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of these downgrades, around 190 subordinated RMBS tranches were downgraded to AA-, though these account for less than 5% of the value of outstanding RMBS. The ratings of senior tranches (AAA) were affirmed as they have sufficient protection from subordination.

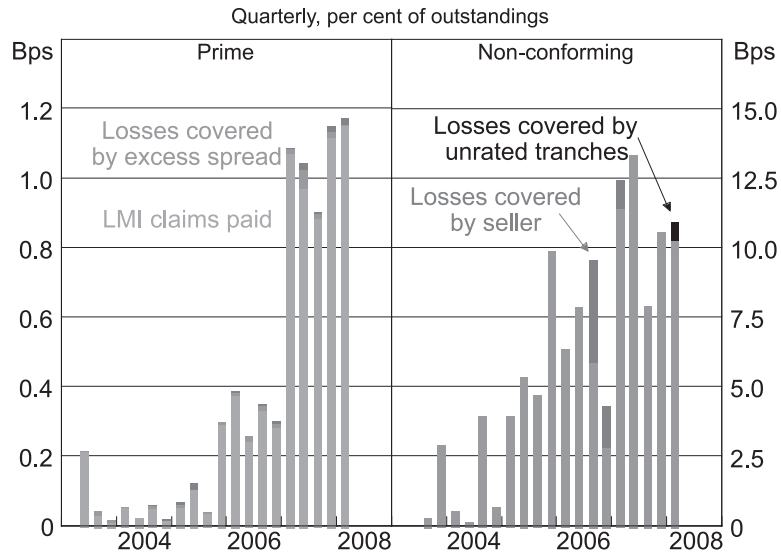
Spreads on RMBS at issuance have recently been around 110–120 bps for prime full-doc AAA-rated tranches, compared to average spreads of less than 20 bps prior to the credit crunch (see Figure 5). However, this is down from the secondary market spreads of 150–200 bps in early 2008 during the forced selling of RMBS by distressed leveraged 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. As SIVs were forced to unwind their positions, they had to sell both the loss-making US sub-prime RMBS and CDOs as well as their profitable Australian RMBS. This led to a dislocation in the local RMBS market, with excess supply from the SIV sales as well as reduced demand partly due to the absence of the SIVs. Nonetheless, spreads would still need to fall further for securitisation to be an attractive source of funding.

FIGURE: 5: Spreads on domestically issued prime RMBS



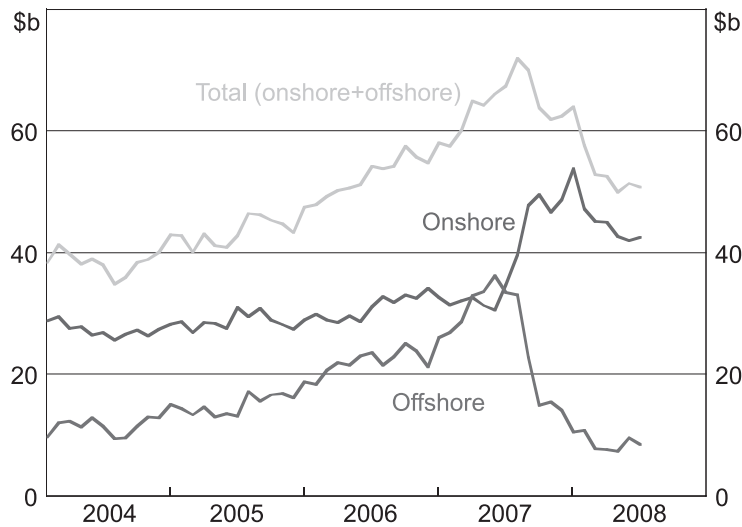
Source: RBA.

FIGURE: 6: Losses on loans in RMBS collateral pools*



* Post-mortgagee sale, losses to unrated tranches only included from July 2007.
Sources: RBA; Standard & Poor's.

FIGURE: 7: Australian ABCP outstanding



Source: Standard & Poor's.

The currently elevated spreads appear to reflect stickiness in spreads given illiquid conditions, investors' caution in relation to securitisation markets and the general conditions in credit markets, rather than concerns about losses on RMBS. Investors in rated Australian RMBS have not suffered any losses of principal – any losses on the underlying loans after the sale of the property have been covered by LMI, the profits of the securitisation vehicles and, to a lesser extent, unrated tranches. Although losses on loans increased over the past year or so, they are still relatively low as a share of outstandings; 5 bps for prime loans and 45 bps for non-conforming loans on an annual basis (see Figure 6).

Conditions have also been strained in the ABCP market since mid-2007; issuance has fallen sharply and spreads widened significantly. Following the general reassessment of risk, and uncertainty over exposure to US sub-prime housing loans, investors have been unwilling to roll over paper, or only doing so at shorter maturities. This focused attention on a shortcoming of conduits' funding strategy: issuing short-term paper to fund longer-term assets. Many programs were forced to call on their backup lines of liquidity provided by banks. This has highlighted the fact that banks can be exposed to significant risks arising from their links with conduits. Reassessment of these risks is likely to have an impact on the future growth

of the ABCP market, as will the imposition of a regulatory capital charge on banks' backup liquidity facilities as part of the introduction of Basel II.

Australian ABCP outstanding has fallen 30% since the peak in July 2007 (see Figure 7). Partly reflecting the more dislocated conditions in the US, Australian-domiciled conduits have switched a large share of ABCP onshore. One reason for the slightly better performance of the Australian market is the different purpose of ABCP conduits. Unlike in the US, ABCP conduits in Australia are more often used to fund loans rather than securities.

Nonetheless, spreads in Australia continue to be at elevated levels — around a 60 bps spread to the bank bill swap rate compared to an average spread of 5 bps prior to the onset of the turbulence (see Figure 8).

The disruptions in the ABCP market have also highlighted the important role of transparency in the smooth operation of the ABCP market. The reluctance of investors to roll over ABCP partly reflected the opacity of the market both in the composition of the asset pools and the lack of publicly quoted prices. Given this lack of information, investors now require more transparency regarding the collateral backing ABCP. There are some signs that the market is responding, with two of the major banks recently setting up additional ABCP programs with greater than usual disclosure of the underlying assets and sellers of the assets.

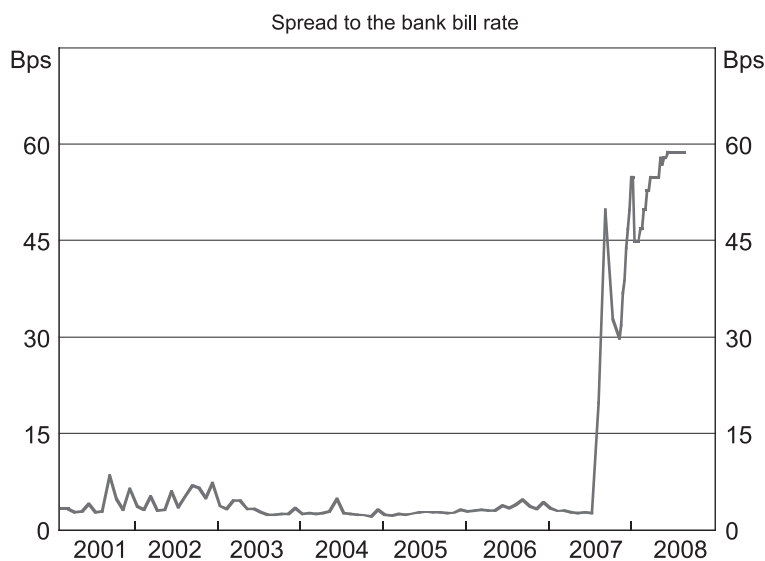
Some of the (non-major) banks that are significant participants in the Australian ABCP market have announced that they intend to scale back their programs.

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Some of these programs are used to provide warehouses for mortgages prior to securitisation which means that some mortgage originators will need to find a new source of funding for their warehouses. Other banks are stepping in to provide replacement warehouses for some of this funding, but at a higher price.

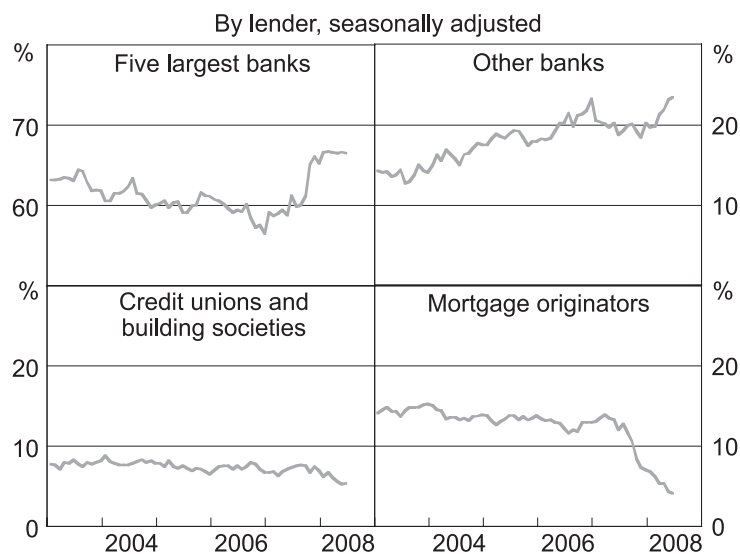
Some lenders who relied on the securitisation market and warehouse funding have subsequently scaled back their new loan growth, or have temporarily curtailed their lending. As a result, mortgage originators' share of housing loan approvals has more than halved (see Figure 9). While this decline was initially met by others, particularly the five largest banks, housing credit growth has recently slowed alongside the increase in interest rates charged to borrowers.

FIGURE: 8: Australian 30-day ABCP spreads



Source: nabCapital.

FIGURE: 9: Share of owner-occupier loan approvals



Sources: ABS; APRA.

With limited securitisation issuance, the major banks have been undertaking an increased share of housing lending and providing increased funding to non-bank lenders. This has partly reversed the process that was evident over the previous decade.⁷ The share of housing loans funded by securitisation has fallen from a peak of 23% in mid-2007 to 18% (see Figure 1).

Conclusion

Compared to rest of the Australian bond market, the securitisation market has been the most dislocated during the current turmoil in markets. Globally, investors have reappraised the risk of structured credit products, particularly those lacking in transparency such as ABCP. This follows a number of years where risk had been underpriced as part of the widespread 'search for yield' by investors.

Notwithstanding the recent difficulties, securitisation can allow financial institutions to diversify their sources of funding, and enable credit risk to be packaged and sold to meet the preferences of investors. The growth in securitisation in Australia, as in other countries, has significantly enhanced competition, particularly in the mortgage market, by facilitating the entry of new lenders and thereby contributing to lower margins on housing loans. On average, loans backing Australian RMBS are of high quality with no investors in rated tranches ever having borne any loss of principal.

Recently, though conditions remain tight, there have been signs that the dislocation in the securitisation market might be easing, with a number of public issues taking place and spreads narrowing. ☺

Notes

- 1 This article is an updated version of the paper presented to the 13th Melbourne Money and Finance Conference on 2 June 2008.
- 2 The exposure to credit risk can also be synthesised through derivatives instead of the outright purchase of assets.
- 3 For more detail on ABCP, refer to S. Black and C. Fisher 2008, 'The asset-backed commercial paper market', *RBA Bulletin*, January.
- 4 For more details on CDOs, refer to S. Black and A. Rai 2007, 'Recent developments in collateralised debt obligations in Australia', *RBA Bulletin*, November.
- 5 For more details, see G. DeBelle 2008, 'A comparison of US and Australian housing markets', address to the Sub-prime Mortgage Meltdown Symposium, 16 August.
- 6 See Reserve Bank of Australia 2008, *Financial Stability Review*, March and Reserve Bank of Australia, *Statement on Monetary Policy*, May.
- 7 For more details, see C. Box 2008, 'Trends in intermediation', *Statement on Monetary Policy*, May.