

Credit Quality in the Australian Non-Government Bond Market¹

1. Introduction

The average credit rating of bonds outstanding in the Australian non-government bond market is high by international standards. About 60 per cent of outstandings are rated AAA, while less than 5 per cent are rated below A; the weighted-average rating is AA (Graph 1).

There are several reasons for this. First, around 40 per cent of non-government bonds in Australia are asset backed. Most of these bonds are backed by residential mortgages and hence tend to be AAA rated. Second, while non-asset-backed bonds span a broader credit spectrum – 36 per cent are AAA rated, and the AA, A and lower-rated (i.e. bonds rated BBB and below) categories account for 25, 33 and 6 per cent respectively – these, on average, are also highly rated by international standards, in part reflecting the prevalence of credit enhancement. Third, the tendency for outstanding bonds to be downgraded over time has been low by international standards.

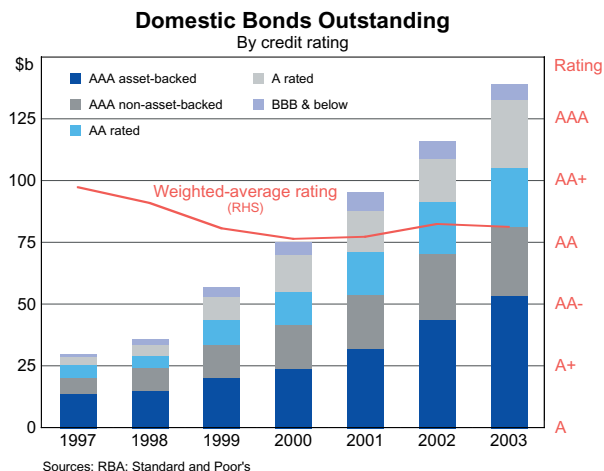
These explanations, however, raise further questions: why has the rapid expansion of the market not resulted in a greater increase in the share of lower-quality, non-asset-backed bonds; why is credit enhancement so common and is it unambiguously desirable; and why has the downwards re-rating of Australian bonds been relatively slight? This article discusses these issues.

2. Composition of the market

The value of non-government bonds outstanding has grown at an average annual rate of 28 per cent since mid 1999. Over this period, outstandings of asset-backed bonds and non-asset-backed bonds have grown at a similar pace, resulting in the share of asset-backed bonds in total outstandings remaining around 40 per cent. Non-asset-backed issuers comprise financial companies (primarily banks), non-financial companies, and non-resident entities, each of which currently accounts for roughly 20 per cent of non-government bonds outstanding.

The sustained rapid growth of *asset-backed bonds* primarily reflects strong growth in housing finance. As the range of mortgages securitised has broadened to include non-conforming loans, and other assets such as credit-card receivables have begun to be securitised, the proportion of asset-backed bonds rated A or lower has risen from virtually zero to almost 5 per cent. Nonetheless, the proportion of outstanding asset-backed bonds that are rated AAA has remained almost unchanged since 1997 at about 90 per cent and the average credit quality of

Graph 1



1 This article was prepared by Michael Davies and Liz Dixon Smith of Domestic Markets Department.

asset-backed bonds has declined only marginally (Graph 2).

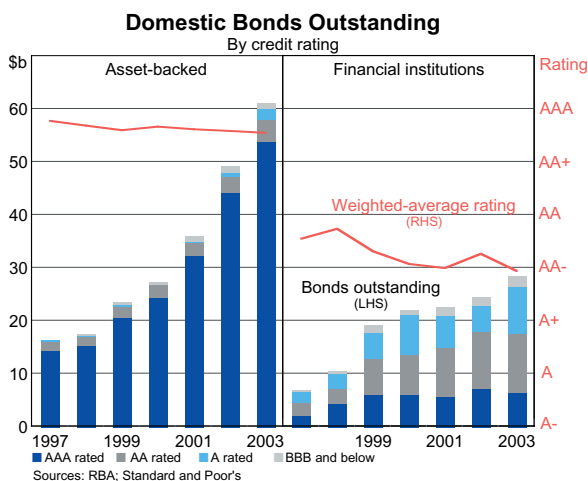
The average credit quality of *financial institutions'* outstanding bonds has also declined only marginally over the past five years. The decline largely reflects reduced outstandings of government guaranteed bonds, which were issued by the state banks and Commonwealth Bank prior to their privatisation, and increased access to the market by smaller financial institutions, which tend to be rated less highly than the major domestic banks.

By contrast, the average credit quality of *non-financial entities* issuing bonds has changed quite markedly since 1997 (Graph 3). In particular, the average quality declined in the late 1990s as companies spanning a broader credit spectrum began to enter the market, and this trend has continued over recent years. In addition, former public trading enterprises (such as Telstra), which in 1997 accounted for a large proportion of the outstanding debt and had high credit ratings due to implicit or explicit government support, became a smaller share of the market and, in many cases, ceased to be able to issue bonds with a government guarantee.

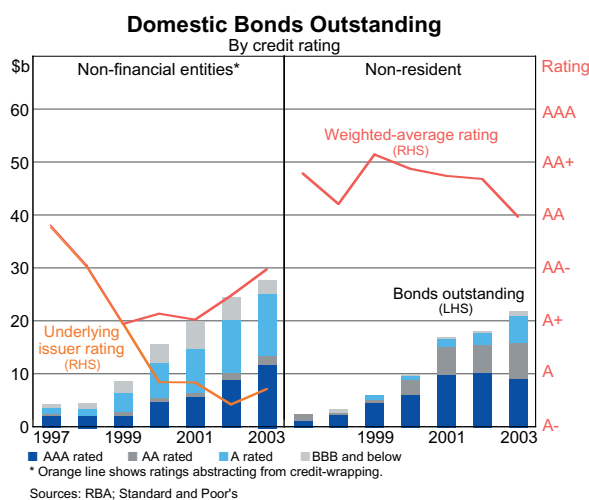
Despite these developments, the average credit quality of outstanding bonds issued by non-financial entities has risen noticeably over the past few years, reflecting the increased use of credit-wrapping, that is, the provision of additional protection against credit losses in order to improve the credit rating of the bond. As a result, the average credit rating of outstanding bonds issued by non-financial companies, at AA-, is substantially higher than the weighted-average rating of borrowers issuing them, which stands at A.

The fourth broad category of borrowers is *non-resident entities*, whose bonds issued into the Australian market are referred to as 'kangaroo bonds'. Non-resident entities issue into the Australian market when opportunities to diversify their funding sources at relatively low cost arise. In turn, Australian investors have been keen to diversify their counterparty exposures; the creditworthiness of kangaroo bonds is not determined by Australian economic conditions. In the past, issuance was dominated by highly creditworthy supranational borrowers (international organisations) so the average credit quality of kangaroo bonds was higher than that of bonds issued by Australian borrowers. More recently, however,

Graph 2



Graph 3



international corporate borrowers, particularly financial institutions, have accessed the market. As a result, the average credit quality has declined towards that of bonds issued by Australian borrowers.

3. Credit enhancement

Credit enhancement in the domestic bond market typically occurs in one of two ways: by a *guarantee or insurance* from a third-party; or by '*tranching*', that is, splitting the bond into several classes with differing degrees of subordination. Whereas a guarantee or insurance has the capacity to improve the overall credit rating of a bond issue, tranching merely creates a distribution of credit risk within that issue; the *average* credit quality of a tranching issue is improved only if the original lender retains the lowest quality tranches on its balance sheet.

3.1 Credit enhancement of asset-backed bonds

Third-party enhancement of asset-backed securities generally comes from insurance on individual mortgages that have a loan-to-valuation ratio (LVR) above a certain threshold (for banks, insurance on loans with LVRs in excess of 80 per cent is a prerequisite for concessional capital risk weighting). A claim on the insurance policy occurs if the mortgagee defaults on the loan and if the value of the property is insufficient to repay the loan. In most cases, the cost of the insurance (around 1½ per cent of the loan value for a mortgage with a 90 per cent LVR) is borne by the mortgagee, who in return can borrow at a lower interest rate – often at the same interest rate as applied to less highly geared mortgages. Mortgage insurance is usually not available for very high LVR and non-conforming mortgages. Instead, the originator may charge these borrowers a fee to establish a pool of equity to cover first losses and/or charge the borrowers a higher interest rate.

Third-party enhancement can also occur via insurance of the whole pool of securitised mortgages. Pool policies provide additional cover for loans that were uninsured while held on-balance-sheet by the lending institution, usually because they had relatively low LVRs. The pool policy covers 100 per cent of the losses of a defaulted loan but may limit the aggregate payout to a percentage of the pool. The cost of this insurance is generally low (a one-off premium of approximately 20 basis points), reflecting the low LVRs of many of the individual underlying mortgages.

Although tranching of mortgage-backed securities has become more common, in part because some originators have sought to reduce their reliance on mortgage insurance, most originators sell all the tranches to investors. As a result, tranching has had little effect on the *average* credit quality of asset-backed securities.

3.2 Credit enhancement of non-asset-backed bonds

Prior to their privatisations, a number of financial institutions and non-financial corporates benefited from third-party credit enhancement in that many of their bonds had implicit or explicit Commonwealth or state *government guarantees*. As a result, the credit rating on these bonds reflected the rating of the government rather than the issuers' stand-alone credit quality. Government guaranteed bonds accounted for around half of outstanding non-financial entities' bonds in 1997, but now account for around 10 per cent. For financial institutions, the share has fallen from almost 30 per cent to 10 per cent over the same period.

For non-financial firms, the falling incidence of government guarantees had, by 2003, been offset by a rising incidence of *private sector guarantees*; the profile for the proportion of

outstanding non-financial bonds with some form of credit enhancement looks very similar to that for the average credit quality of non-financials' bonds outstanding (Graph 4). So-called 'credit-wrapped' bonds have become an increasingly popular financing tool for lower-rated non-financial corporate borrowers. Utility companies and airports have been the predominant issuers of these bonds as, despite tending to have high-quality fixed assets and relatively predictable cash flows, these companies tend to be highly geared. There have been no issues of credit-wrapped bonds by financial institutions.

The private-sector guarantors (of non-financial bonds) are large highly rated specialist insurance companies, commonly known as 'monolines', which have internationally diverse portfolios of obligations. Issuers pay an up-front premium equivalent to between 20 and 60 basis points per annum for the credit wrap.² In return, they are able to borrow for longer maturities and at a lower spread than otherwise. Credit-wrapped bonds tend to have longer maturities than non-wrapped bonds so it is difficult to quantify the yield differential between wrapped and unwrapped bonds issued by similarly rated companies.

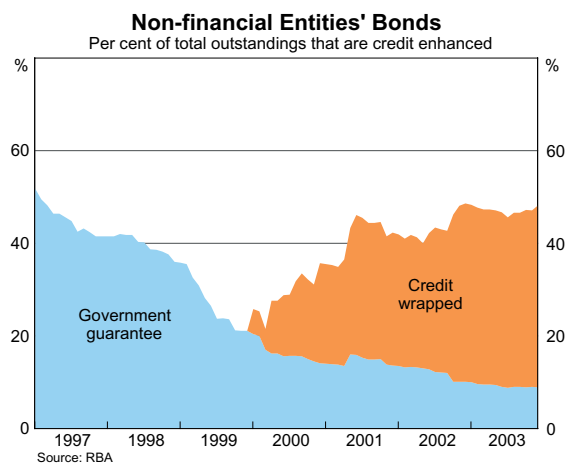
3.3 Implications of credit enhancement

While the increased use of credit enhancement has allowed some mortgage lenders and lower-rated firms to issue debt more cheaply than they might otherwise have been able to, it does have other implications.

First, concentration risk in both the credit-wrapping and mortgage insurance markets may be a concern. Although the providers of third-party credit enhancement are generally very highly rated companies, holders of residential mortgage-backed securities are exposed to the health of two mortgage insurance companies while almost 90 per cent of outstanding credit-wrapped bonds are guaranteed by two 'monoline' insurers.³ If defaults on the underlying loans are correlated, periods of severe economic distress could result in large volumes of claims on the insurance companies, perhaps undermining their creditworthiness. Perhaps reflecting this, primary market spreads on subordinated tranches of prime mortgage-backed securities bonds have widened over the past six months. However, secondary market spreads on credit-wrapped bonds suggest that investors continue to value credit wrapping as much as they have in the past.

Second, the propensity of borrowers to turn to credit enhancement may have precluded a broadening of the opportunities available to investors in the domestic market. That said, the

Graph 4



2 The premium is calculated based on the insurers' assessment of the risk they are incurring, and is generally more than half of the spread reduction that the borrower is likely to achieve by issuing a credit-wrapped bond rather than an unwrapped bond.

3 The five largest mortgage insurers account for 90 per cent of the mortgage insurance market. Of those, three are captive insurers for major banks and only allowed to insure loans on behalf of their parent.

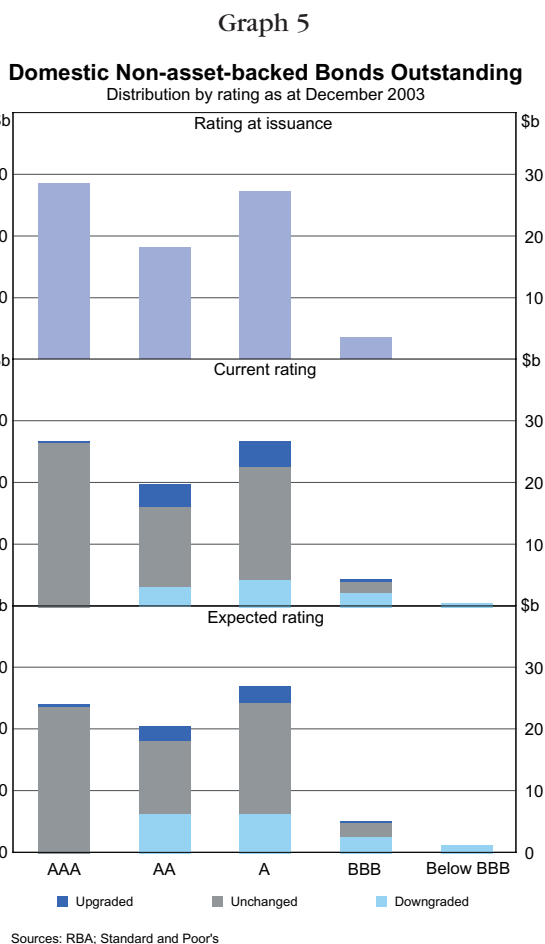
relative lack of lower-rated (and longer-dated) bonds appears to reflect investors' preferences. Lending at least partial support to this view is the fact that some lower-rated borrowers have turned to more mature overseas markets to raise finance; for example, the average rating of (rated) debt issued by Australian borrowers into the US private placement market is BBB.

4. Ratings migration

In addition to rapid securitisation of conventional mortgages and credit enhancement, a third factor that has contributed to the Australian market's high average credit rating is that there has been little downgrading of outstanding bonds. International experience is that, over time, there tend to be more downgrades of credit ratings on outstanding non-government bonds than upgrades. There has been some net downward re-rating in the average prevailing credit rating of outstanding Australian non-government bonds but it has been smaller than that which would be expected based on international experience.

To date, only 1 per cent of asset-backed bonds have been downgraded, while 3 per cent have been upgraded. This is because most asset-backed bonds issued in Australia are securitised portfolios of prime residential mortgages and, to date, Australian residential mortgages have tended to have lower default rates than both residential mortgages in other countries and the loans used to back other securitised bonds. In part, this may reflect the fact that the market has grown at a time when conditions in the mortgage market have been particularly favourable.

Perhaps more significantly, non-asset-backed bonds have been subject to less than two-thirds of the downgrades that would be expected based on global ratings histories since 1980.⁴ Of the bonds outstanding in the Australian market at end 2003, \$60 billion (by face value) still retain the rating they had when first issued, \$8 billion have been upgraded and \$11 billion have been downgraded by one or more ratings notch (Graph 5). If the bonds' credit ratings had changed in line with historical rates for overseas markets, only \$5 billion would have been upgraded, and \$17 billion would have been downgraded. The ratings outperformance was apparent across all credit ratings and all types of issuers, but was particularly evident amongst AAA rated debt, where outstandings have fallen \$2 billion because of net



4 A comparison with international experience since 1997 is difficult. However, the extent of downgrades of US bonds over the past few years would ensure that such a comparison was also favourable.

downgrades, compared with what would have been a \$5 billion fall based on international experience.

The superior ratings performance of Australian non-government bonds reflects, in part, the comparatively strong domestic economic climate of the past decade. This has particularly benefited the banks, which account for a relatively large share of the debt on issue. The relative lack of downgrades amongst AAA-rated non-asset-backed bonds also reflects the fact that many of these bonds are issued by supranational borrowers whose ratings are particularly strong, or contain credit enhancement which provides a second (AAA rated) level of protection against default.

5. Conclusion

The Australian non-government bond market has grown rapidly in recent years and has seen the emergence of issuance by lower-rated firms and some securitisation of non-conventional mortgages. Since around 1999, however, there has been little change in the average credit quality of outstanding securities. This reflects three main factors: sustained rapid growth of securities backed by conventional residential mortgages; recourse to credit enhancement; and a relatively low number of downgrades to the bonds outstanding, reflecting both the composition of bond issuers and a benign economic environment in Australia.

The relative lack of lower-rated issuance into the domestic market and the propensity of borrowers to turn to credit enhancement appears to mainly reflect domestic investors' preferences. At present, the investment community is dominated by institutional investors, many of whom are mandated to invest only in debt that is rated A- or higher. Consistent with this, some lower-rated borrowers have turned to more developed overseas markets to raise finance.

The widespread use of credit enhancement in both asset-backed and non-asset-backed bonds has given rise to concentrated exposures to the insurers. However, recent issuance suggests credit enhancement continues to be valued by investors and is cost effective for some borrowers.