Residential Mortgage Securitisation: The Australian Perspective

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Abstract

The purpose of this article is to examine the mechanics of and the structuring issues in a residential mortgage securitisation program in Australia. It focuses on practical issues, such as the structure of the RMBS program; procedural aspects of the mortgage origination process; the establishment of the SPV and the transfer of the lender’s rights to it; the issuance of the mortgage-backed bonds; the credit enhancement mechanisms that are available; and related operational aspects, such as the appointment of a fund manager or other ancillary service providers. Finally, the article summarises the process of structuring a RMBS program and identifies the key issues that arise throughout the process that may be addressed through further research.

KEYWORDS: residential mortgage-backed securities (RMBS), mortgage securitisation, special purpose vehicle (SPV), assignment, conduit, pay-through securities, pass-through securities, origination, true sale, fund manager, credit enhancement, Australian Prudential Regulatory Authority (APRA).

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INTRODUCTION

This article examines the mechanics of a residential mortgage-backed securities (RMBS) program in Australia. It focuses on practical issues, such as the structure of the RMBS program, which is discussed in Part 1; the procedural aspects of the mortgage origination process are examined in Part 2; the establishment of the SPV and the transfer of the lender’s rights to it are analysed in Part 3 and 4 respectively; Part 5 focuses on the operational aspects, such as the appointment of a fund manager or other ancillary service providers; the credit enhancement mechanisms that are available are discussed in Part 6; the issuance of the mortgage-backed bonds is examined in Part 7; the balance-sheet effect of RMBS is illustrated in Part 8. Finally, Part 9 summarises the process of structuring a RMBS program and identifies the key issues that arise throughout the process.

1. STRUCTURING A TYPICAL MORTGAGE SECURITISATION

In a typical RMBS program, a mortgage lender or originator, which seeks to raise cash, identifies suitable home loans that can be used as the basis for issuing mortgage-backed bonds to the institutional investor market. These home loans represent borrowers’ payment obligations, or interest income, to the bank or originator.

There are two main two types of RMBS programs in Australia, viz.:

(i) Bank or “assignment” programs; and
(ii) Conduit programs.

1.1 Bank or “Assignment” Programs

Under bank or “assignment” programs, the lender - usually a bank or IMP - pools similar home loans, which are recognised as assets on its balance sheet, and equitably assigns its rights in that asset pool, including its mortgagee rights in respect of the supporting security properties, to an SPV.¹ For the larger banks, the mortgage originator is the lender, which sponsors the program. However, this need not be the case. In particular, smaller regional banks, credit unions, building societies or IMPs may need to obtain the

backing of a larger bank to “sponsor” the program, before institutional investors are prepared to invest in the bonds issued by the SPV.

The SPV funds the amount payable as consideration for the equitable assignment through the issue of securitised bonds. The SPV generally appoints the original lender (eg. the bank) as the “servicer”, and sometimes as the “fund manager”, responsible for the continuing management of the loans and supporting security.

1.2 Conduit Programs

Conduit programs, which are the most common form of RMBS program in Australia, are typically established by regional banks and financial intermediaries, which lack the asset size to sponsor an assignment program, without the credit support of a larger bank or other facility provider.

In order to reach the minimum asset pool size required to launch an RMBS issue, these smaller institutions tend to “warehouse” (or pool) their mortgages until they reach an aggregate value sufficient to back a bond issue, which is then made either by the institution itself, or in combination with other smaller institutions. The support of a larger bank or other facility provider is generally obtained because, without it, the bonds issued by the smaller originators would not be sufficiently attractive to institutional investors. In effect, the support of a larger bank or institution upgrades the quality of the smaller originators’ bonds, with the larger bank agreeing to “guarantee” the smaller originator’s debts in respect of the issue. This “guarantee” may take the form of a formal guarantee, but more usually the larger bank agrees (in exchange for a fee) to act “back-up servicer”, “standby credit facility provider”, “standby specialist servicer”, or “liquidity facility provider” for the issue.

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2 Generally, the fund manager is appointed by the trustee to administer and manage the mortgage pool, invest liquid funds and liaise with bond investors and underwriters.


4 By way of example, Macquarie Bank Ltd’s PUMA Fund operates one of the largest conduit programs in Australia: see M. B. Johnson, ‘OZ Securitisation Gathers Pace’ (March 2001) Asiamoney 47, 48; Anon., ‘PUMA Securitisation Pioneer’, (May 1999) Euroweek 19, 20. This program is sponsored by the fund manager, Macquarie Securitisation Ltd, which is a subsidiary of Macquarie Bank Ltd. In this particular program, as well as acting as sponsor and fund manager, Macquarie Securitisation Ltd acts as servicer, and there is a separate mortgage manager. Perpetual Trustee Australia Ltd acts as trustee of the fund: see Master Information Memorandum, PUMA Fund P-7, particularly at sections 5, 7 and 9.
1.3 “Pass-Through” vs. “Pay-Through” Structures

Theoretically, an RMBS program can also be structured on a “pass-through” or “pay-through” basis, regardless of whether the program is a bank or conduit program. In “pass-through” issues, the principal repayments are “passed through” to the investor at about the same time as they are received from the pool of initial borrowers according to an agreed (eg. monthly) repayment schedule; whereas in “pay-through” issues, the “principal” repayments are paid through to the investor at any time, and not necessarily as they are received from the pool of borrowers. This represents a key difference...
between the two types of issues, and has obvious cash flow management implications for the SPV in meeting its obligations to bondholders.

In some jurisdictions overseas (eg. in the United States), some RMBS issues are “pass-through” in character, while others are “pay-through” in character. In contrast, most RMBS programs in Australia thus far have been “pass-through” in character, although some have had some “pay-through” characteristics. For example, different tranches of securities for different classes of investor are normally reserved for pay-through programs (at least in the United States), and yet Macquarie Bank’s PUMA program, which is expressed to be a pass-through program, also provides different tranches of securities.

classes of investors. Other factors being equal, it would choose a pass-through program, rather than a pay-through program. While this is cheaper, the sponsor foregoes the additional net revenue it might earn from a pay-through program in which it would be able to access a wide range of potential investors with different preferences in terms of risk, liquidity, and investment horizon.

Alternatively, the sponsor’s target investors might prefer that the regular (e.g. monthly) home loan repayments from borrowers are reconfigured into different (e.g. quarterly or semi-annual) payment streams. On the other hand, investors might prefer, for asset/liability management purposes, that the incoming regular home loan repayments of principal and interest are reconfigured so that, in terms of the bonds issued by the SPV, the principal is paid at maturity in one “bullet payment”, rather than e.g. on a “reducing principal” basis over the term of the bond facility.

Cf. also I.H. Giddy, ‘Alternative Forms of Asset-Backed Securities’, delivered at Workshop on Asset-Backed Securities, New York University, 2001, 2-4, who notes, in a U.S. context:

“A basic premise of the pass-through structure is that reconfiguration of the cash flows is not permitted [under U.S. tax law], as it would cause the trust to be deemed a taxable entity. Instead of being taxed directly, the trust’s tax liabilities flow through to the holders of the pass-through certificates. Pass through payments should match the incoming payments on the assets. Imputed or actual principal and interest payments from payer may not be re-characterised, as would be the case, for example, with discount or premium prices paid for loan pools. The interest portion of a payment stream may be divided, for example, among investors and the servicer, or to support credit enhancement, but principal must be passed through to repay investors as received. Thus, in a pass-through security, the economics of the debt instrument issued [are] essentially the same as [those] of the underlying asset or asset pool... [In contrast], investors in a pay-through are no longer [equitable] owners in underlying assets; they have simply invested in a bond backed by some assets. Therefore, the issuing entity can manipulate the cash flows without tax consequences, hence the use of the pay-through structure for CMOs which manipulate the incoming cash flows into separate payment streams. Thus pay-through securities may be structured so that asset cash flows can be reconfigured to support forms of debt unlike those of the underlying assets.”

In the market nomenclature, “CMOs” are collateralised mortgage obligations – a basic form of pay-through mortgage-backed security used in the United States.

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9 Cf. also I.H. Giddy, ‘Alternative Forms of Asset-Backed Securities’, delivered at Workshop on Asset-Backed Securities, New York University, 2001, 2-4, who notes, in a U.S. context:

10 See Master Information Memorandum PUMA Fund P-7, paragraph 2, above note 4.
There are at least two other differences between the RMBS programs issued thus far in Australia and overseas. First, although some participants in the RMBS markets in Australia use the terms “pass-through” and “pay-through” interchangeably, in a strict sense there are no pay-through equity-based RMBS programs in Australia. That is, all of the RMBS programs in Australia to date have comprised debt issues – a fact which is explained, at least in part, by the current market regulation in Australia. Pay-through securities that issued as ordinary shares in Australia would need to comply with the fundraising and security disclosure provisions set out in Chapter 6D of the Corporations Act 2001 (Cth), which can be more onerous and complex (and therefore more costly to comply with in practice) than those applicable to simple public debt issues.

In addition, in Australia, all of the SPVs to date have been structured as trusts, rather than as corporate issuers. This too is largely due to the current market regulation. Under the Corporations Act, it may be no cheaper for banks and other financial institutions to structure an SPV as a company since, in many cases in practice, a corporate SPV that issued public debt would need to set up a trust for the debenture holders in any case. In such circumstances, it is perhaps understandable that banks and other financial institutions would see little value in issuing RMBSs through a corporate SPV and trust, when they can do so through a trust alone.

2. MORTGAGE ORIGINATION

2.1 Origination

In a typical mortgage origination, the borrower applies for a residential home loan from a bank or mortgage originator. In the case of a bank, the loan application is reviewed for approval by bank management, and the residential property to be mortgaged is valued by the bank’s valuer. Invariably it is a condition of the home loan contract that the loan be insured, either by a bank subsidiary insurance arm, or by an independent insurer. Once the loan is approved, subject to the requirements of the Australian Consumer Credit Code.

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11 Sections 710 - 723 of Ch. 6D. See the author’s article ‘Corporations Law and Trust Aspects of Securitisation in Australia’ in D. Campbell (ed.) International Asset Securitisation and Other Financing Tools (N.Y.: Transnational Publishers, 2000) 88.
12 Specifically, those debt securities that fall within the definition of “debentures” in section 9 of the Corporations Act, and which are regulated by Ch. 2L of the Act.
13 See for example, section 283AA of the Corporations Act.
14 For example, one of the conditions might be that the borrower maintains full replacement home owner’s insurance on the mortgaged property.
and other relevant legislation, the bank’s solicitors prepare and settle the mortgage and loan documentation.

In the case of an IMP⁴, there are two main forms of origination process. Some IMPs record the details of the borrower’s loan application and forward it to a bank for approval. These IMPs effectively act as “spotters” for the larger banks, and the origination fee they receive is effectively in the nature of a “spotter’s fee”. The remainder of the origination process is done mainly by the bank, and is similar to that outlined above. Other IMPs effectively act like banks, albeit small banks, and follow an origination procedure that is similar again to that used by the banks.

After origination, the IMP transfers the mortgages to an SPV in return for a purchase price payable immediately on sale.

2.2 The Originator as “Servicer”

The SPV typically authorises the originator to act as “servicer”. In return for a service fee, the originator collects the mortgage repayments on behalf of the SPV. The servicer typically accumulates these mortgage receivables in a separate escrow or trust account¹⁶, from which collections are drawn by the SPV. The SPV uses these collections either to fund immediate interest payments to its bond investors, or to reinvest the money elsewhere so that it can pay bond investors at a later date.

In the event of default by the mortgagors, the servicer will, as the agent of the SPV, ultimately bring an action against the mortgagors.¹⁷

2.3 Substitution of Mortgages

In a typical mortgage securitisation, RMBS issues are structured to allow the mortgage pool to be “topped up” with new substitute mortgages for a few years after the initial issue of the securities. This is done for at least two main

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¹⁵ For example, RAMS Home Loans Pty Ltd, Wizard Home Loans Ltd, or Aussie Home Loans Ltd.
¹⁶ This escrow account is set up to, inter alia, absorb any losses from the housing loan defaults or repayment shortfalls.
¹⁷ See for example, Master Information Memorandum, PUMA Fund P-7, paragraph 5.2, above note 4.
reasons: first, to supplement the cash flow needed by the trustee-issuer to fund the RMBS issue\(^\text{18}\); and second, to extend the life of the issue if required.\(^\text{19}\)

In general, the trustee/issuer is required to fund its purchase of substitute mortgages from available “principal collections”\(^\text{20}\), which mainly comprise the proceeds of mortgages that have been redeemed, enforced or otherwise discharged. There are two key issues in mortgage substitution: the quality of the substitute mortgages, and the impact of substitution in the event of originator’s or issuer’s insolvency. The quality of the new mortgages must be comparable with that of the old, in order to avoid jeopardising the rating of the bonds issued. To ensure this, it is generally a condition that the original lender must give the same warranties in respect of the replacement mortgages as were given in respect of the original mortgages placed in the pool.\(^\text{21}\) In the event of a breach of warranty, the original lender is required to repurchase the recalcitrant mortgage.\(^\text{22}\) The second issue relates to insolvency. There could be a legal risk of the substitution of mortgages into the mortgage pool being regarded as a transaction at an under-value or as a preference in the event of the issuing vehicle's or the originator's insolvency.

In those RMBS issues where mortgage substitution is not permitted, the issuer’s exposure to unanticipated adverse future events may be limited if the issuer is able to redeem the bonds issued.

### 2.4 Further Advances

Some RMBS programs also permit the trustee-issuer to make further advances to existing borrowers in the pool. Under certain circumstances, the issuer-trustee can make a second or subsequent advance to a mortgage borrower\(^\text{23}\), provided they meet normal credit assessment guidelines and are approved by a
relevant mortgage insurer. Further advances are usually funded by the issuer trustee from the principal collections of the Fund.²⁴

Whether the further advance is to be funded by the issuer or the originator is a practical commercial question. It may be advantageous for the issuer to fund the further advance out of the proceeds of redeemed mortgages, since this can have the same effect as the substitution of mortgages – ie. it can maintain the income flow to the issuer and prolong the life of the issue, if required.²⁵ On the other hand, for the originator to fund the further advance, the originator must generally either make the advance on the security of a new second mortgage which ranks behind the original mortgage held by the issuer, or re-acquire the mortgage from the vehicle in exchange for cash or (if permitted) investments or substitute mortgages, with the result that the mortgage on which the further advance is made ceases to form part of the backing for the issue.

A separate agreement between the originator and issuer is not generally required to effect the transfer of the increased debt created by the further advance, nor is it generally necessary for a separate security agreement to be executed in the issuer trustee's favour. This is because the original sale agreement (or the mortgage origination deed) will usually have been worded sufficiently widely to transfer all of the originator's rights, both present and future, to the mortgage loans including any further advance and the trustee's security will usually also be expressed to extend to this.²⁶

The effect of an agreement to sell future property rights has been analysed in Holroyd v Marshall²⁷ in the following way:

“A contract which engages to transfer property, which is not in existence, cannot operate as an immediate alienation merely because there is nothing to transfer.

But if a vendor ... agrees to sell ... property, real or personal, of which he is not possessed at the time and he receives the consideration for the contract, and afterwards

²⁴ These include principal receipts in respect of mortgages of the Fund; payments under the lender’s mortgage insurance policies in respect of principal outstanding under mortgages; and any compensation received from a mortgage manager for outstanding principal under any mortgage.

²⁵ For further detail, see S. Gangwani, ‘MBS Structuring: Concepts and Techniques’ (1998) 1 The Securitization Conduit 26, 32.


http://www.beypress.com/gj/topics/vol5/iss3/art1
Accordingly, when an originator makes a further advance on a mortgage that has been securitised, the debt that the originator acquires will be transferred automatically to the issuing vehicle in accordance with the sale agreement. On the same principle, it would also become subject to the issuer trustee's security.

3.  ESTABLISHMENT OF THE SPECIAL PURPOSE VEHICLE

A Special Purpose Vehicle (SPV) must be established, not only to offer securities to the market, but also to ensure the bankruptcy-remoteness of the RMBS program. In Australia, the larger SPVs are established as master trusts. These larger SPVs comprise two classes of trust funds – warehouse funds and sub-funds – both of which are created pursuant to the trust deed for the Master Trust. A warehouse fund is used to originate housing loans funded by a single investor (called a “warehousing investor”) in preparation for a securitisation in the future. The purpose of a sub-fund is to issue bonds or notes, and to use the sale proceeds from the issue of those securities to acquire housing loans from a warehouse fund or other mortgage originator. Each warehouse fund and sub-fund is a separate and independent trust within the Master Trust fund and, in keeping with equitable principles proscribing the commingling of trust funds, the assets and liabilities of each fund are segregated from those of every other warehouse fund or sub-fund.28

The trustee-issuer of the Master Trust fund issues bonds (ie. the RMBSs) pursuant to provisions in the trust and a sub-fund notice. Again, consistent with equitable principles about the commingling of trust funds, the assets of the Master Trust cannot be used to meet the liabilities of any other trusts, and none of the assets of other trusts are available to meet the liabilities of the Master Trust fund.29

The ultimate beneficial interest in the SPV is held by the capital and income unit holders. The capital and income unit holders are only entitled to receive

28 Macquarie Bank’s PUMA program is one such Master Trust fund in Australia: see PUMA Master Information Memorandum, PUMA Fund P-7, paragraph 2, above note 4.
payments or distributions subject to prior ranking entitlements described under the general priority of payment under the trust deed.\textsuperscript{30}

4. TRANSFER OF LENDER’S RIGHTS TO THE SPV

Once the process of mortgage origination and the structure of the SPV have been operationalised, the rights of the original mortgagees must be transferred to the SPV in a manner that is legally effective and commercially practical.

In terms of legal theory, a transfer of mortgagee rights from a mortgage originator to a third party could hypothetically be effected by legal or equitable assignment. Under an effective legal assignment, the mortgagee’s rights would be vested absolutely in the SPV. Under an equitable assignment, the SPV would be recognised in equity as having acquired those mortgagee rights, but not in law – in law, the transferor would remain their legal “owner”, holding the mortgagee rights on bare trust for the SPV as trustee for the bondholders.\textsuperscript{31}

In practice, most of the smaller banks and IMPs equitably assign their mortgages to a “warehouse trust fund” or “sub-fund” administered by a larger bank, which sponsors the RMBS program. In such a case, the instrument of assignment typically provides that the transfer is to be perfected or completed in particular circumstances\textsuperscript{32}, such as the mortgage originator entering into administration or going into liquidation.

Ultimately however, the mortgagee rights in almost all Australian RMBS programs in practice are sold by way of legal assignment to the SPV that issues the RMBSs, which then becomes the “lender of record” for these housing loans and ultimately receives all repayments from borrowers. In purchasing the mortgages in this way from the originator at their market value, the trustee (or security trustee, if any) of the SPV becomes, in law, the mortgagee of the residential properties in the pool.\textsuperscript{33}

\textsuperscript{30} For instance, in the context of Macquarie Bank’s PUMA Fund, the ultimate beneficial interest is held by the fund manager Macquarie Securitisation Ltd as capital and income unit holder. See \textit{PUMA Master Information Memorandum, PUMA Fund P-7}, paragraph 4.6, above note 4.

\textsuperscript{31} In the context of the Macquarie Bank’s PUMA program, see \textit{Master Information Memorandum, PUMA Fund P-7}, paragraphs 5.1 – 5.3, above note 4.


\textsuperscript{33} While the trustee (or security trustee, if any) of the SPV holds the legal title to the residential mortgage loans, investors in the RMBSs acquire a concomitant beneficial interest by paying a price for the loan receivables equal to their present value. This present value reflects the rate of return the trustee-issuer wants to offer to the investors, and must be lower than the inherent rate of return of the loan receivables if the overall transaction is to be profitable.
The assignment or transfer is typically structured in such a way that mortgages in the pool are separated from any insolvency risks associated with the originator. To use the U.S. expression that has found its way into the Australian market nomenclature, the assignment or transfer is structured so as to be “bankruptcy-remote” to gain investor acceptance in the capital market securities. In general, this is achieved by ensuring that the assignment or transfer constitutes a “true sale” by the originator to the SPV. Provided the sale is perceived to be “arm’s length” at a genuine market price, and its timing is at least six months before any stakeholder insolvency, then even if the mortgage originator becomes insolvent, the mortgaged properties in the pool will generally, under insolvency law, be insulated from other assets of the originator that may be used to satisfy its creditors. The separation of the originator from the mortgaged assets generally also enables funds to be raised at less cost, through securities issued by the SPV, than if the originator were to raise funds in its own right.

4.1 What Happens to the Remaining Cash Flow?

The SPV may pay surplus income from the mortgage receivables, which is not needed to repay the loan securities, either to the originator so that the originator takes the profit (e.g. as servicing fees), or to the program sponsor, or both.

5. APPOINTMENT OF THE FUND MANAGER

In many RMBS programs, an administrator or fund manager is appointed to manage the fund assets on behalf of the trustee-issuer, and to exercise the trustee-issuer’s rights and powers and discharge its obligations. Although

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34 Insolvency remote in this context means that the SPV is unlikely to be adversely affected by a bankruptcy of the originator. See also T. J. Gordon, ‘Securitization of Executory Future Flows as Bankruptcy-Remote True Sales’ (2000) 67 (4) The University of Chicago Law Review 1317.


38 For example, in the context of the PUMA program, Macquarie Securitisation Ltd is typically appointed as fund manager: see Master Information Memorandum, PUMA Fund P.7, paragraph 7.3, above note 4.
the extent of its role may vary between programs, the fund manager is often
demanded to make payments on behalf of the issuer (including payments to
investors in its RMBSs through authorised paying agents)\(^\text{39}\), manage its
investments and any borrowings, collect interest and principal payments from
mortgagors, monitor arrears, discharge loans and related securities on
redemption, and ensure the safe custody of title deeds and documents.
Regular detailed reports are also generally required to be submitted to any
rating agency that has rated the issue. A management deed \(^\text{40}\) outlining
the scope of the fund manager’s duties is generally executed by the trustee-issuer
in favour of the fund manager.\(^\text{41}\)

In some RMBS programs, these roles are split along functional lines, so that
the fund manager is appointed only to manage the assets and any liabilities of
the trust fund and make payments to investors, while other parties are
appointed by the trustee-issuer to collect housing loans repayments (in which
case, a collections manager may be appointed); to monitor arrears and
discharge loans and securities on final payout of the loan (in which case, a
servicer may be appointed); or to ensure safe custody of title deeds and related
documents (in which case, a custodian might be appointed).

The fund manager acts as disclosed agent\(^\text{42}\) of the trustee to the extent
authorised (eg. in entering contacts on behalf of the trustee) and, provided it
acts within the bounds of its authority, is not liable to bondholders or others
for the debt issued by of the trustee of the SPV.

As part of its duties, the fund manager is regularly required to report to the
trustee-issuer during the life of the RMBS issue. In order to perform its

\(^{39}\) The fund manager is typically authorised to withdraw funds from the issuer’s bank
accounts for these purposes.

\(^{40}\) See for example, Master Information Memorandum, PUMA Fund P-7, paragraphs 5.2
(Management of Approved Mortgages), 6.6, and 6.7, above note 4.

\(^{41}\) This management deed may entrust the fund manager with other powers. For example, in
Macquarie Bank’s PUMA program, the fund manager retains the legal right to reset the
interest rate and take enforcement proceedings: see Master Information Memorandum,
PUMA Fund P-7, paragraph 5.2, above note 4. However, the fund manager is itself
subject to fiduciary obligations with regard to the manner in which it exercises these
powers: see for example, Master Information Memorandum, PUMA Fund P-7,
paragraphs 4.1–4.5, above note 4. Moreover, the trust deed does not typically extend to
authorising the fund manager to sell mortgages or release them without the security
trustee's authorisation: see, for example, Master Information Memorandum, PUMA Fund
P-7, paragraph 5.2, above note 4. Furthermore, upon the occurrence of certain events
specified in the management deed, the fund manager’s appointment can be terminated and
a new manager appointed. Those circumstances include the commencement of winding
up of the fund manager, and the appointment of a receiver to the fund manager: see for
example, Master Information Memorandum, PUMA Fund P-7, paragraph 7.1, above note 4.

\(^{42}\) See e.g. S. Fisher, Agency Law (Sydney: Butterworths, 2000) Chapters 4 and 9.

http://www.bepress.com/gj/topics/vol5/iss3/art1
obligations, the fund manager is generally entitled to a comprehensive range of regular information about the fund, including copies of quarterly or monthly management accounts, details of further advances and substitutions (where permitted), cash flow projections, arrears figures and enforcement action being taken, movements of title deeds and other documents, and the issuer's audited annual financial statements.

6. CREDIT ENHANCEMENT

The ratings agencies usually require that the structure of an RMBS program be, so far as is practicable, free from financial risks. For smaller banks and IMPs in particular, the ratings of the bonds issued, and therefore the net cost of funding an RMBS issue, are directly dependent on the credit enhancement they can secure. Key methods used to enhance the credit quality of RMBSs issued in Australia include mortgage insurance, subordinated bond structures, and cash reserves.

6.1 Mortgage Insurance

Of these, the most common method of addressing credit risk in issues of RMBS in Australia is for the issuer to take out a lender’s mortgage insurance policy in respect of the mortgage pool. Lenders’ mortgage insurance

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43 Standard and Poor’s, ‘Mortgage-Backed Criteria’ Structured Finance Australia and New Zealand, 1999, 38-39; L Hsu and C Mohebbi, ‘Credit Enhancement in ABS Structure, in F J Fabozzi (ed.) Accessing Capital Markets Through Securitization (Pennsylvania: FJA Associates, 2001) 35. These risks include credit risk, liquidity risk and revenue risk. Credit risk is the risk of loss resulting to the issuer if a home loan borrower defaults. Liquidity risk is the risk of delay between the receipt of funds from the home loan borrower, and the due date for payment of interest on the securities and other expenses. Revenue risk can be sub-divided into “interest rate differential” risk (ie. the risk that the interest payments being made by the home loan borrowers will be insufficient for the issuer to make the interest payments due on the RMBSs issued) and re-investment risk (ie. the risk that the rate of return on the issuer’s liquid funds will be less than that which is due on the securities issued). Each of these risks can be minimised or managed by various mechanisms, including interest rate futures, options and swaps. A detailed discussion of these instruments is beyond the scope of this article. However, for a broad overview of these risk management tools in an Australian context, see for example, G. Pierson et al, Business Finance, (Sydney: McGraw-Hill, 2002); S. Bishop et al, Corporate Finance, (Sydney: Pearson Education, 2000); or R. Bruce et al, Handbook of Australian Corporate Finance, (5th ed., Sydney: Butterworths, 1997).

44 Other methods include over-collateralisation (discussed separately below) and, as noted earlier, third party guarantees. For a detailed discussion of credit enhancement methods, see L. Hsu and C. Mohebbi, ‘Credit Enhancements in ABS Structure’ 35.

policies typically provide insurance coverage of 100 percent of the principal and interest outstanding on the mortgage loans acquired by the SPV. Each mortgage insurance policy generally includes cash flow cover entitling the SPV to receive scheduled payments of principal and interest for a maximum period of 2 years, in respect of mortgage loans, which are more than 30 days delinquent. However, lenders’ mortgage insurance will typically not cover losses that occur as a result of, amongst other things, fraud by the trustee, originator, manager or their agents; a right of set-off by the borrower against the trustee; or the re-opening of “unjust” mortgages (as defined by section 70 of the Consumer Credit Code).

One potential disadvantage of mortgage insurance is that the ratings of RMBSs issued can be downgraded if the insurer’s ability to pay out on claims is threatened.

### 6.2 Senior/Subordinated Bond Structures

A second form of credit enhancement noted in the overseas literature, and sometimes used in Australia, is to divide the RMBSs on issue into senior and junior (or subordinated) securities. The “credit enhancement” plainly applies to the senior bonds, not the subordinated bonds. The repayments from the home loan borrowers are first used to pay interest on these senior bonds, which have a claim over the entire cash flow to get paid first. Being lower risk, these senior bonds are characterised by a relatively low rate of return.

Subordinated bonds rank behind these senior bonds in the event of the SPV’s winding up, and also rank behind the senior bonds in terms of their right to receive interest payments. In the event of an enforcement of the charge under the security trust deed, the subordinated bonds will also be fully subordinated to the senior bonds in their right to receive principal payments. Being less secure than the senior bonds, these subordinated bonds are sold to investors at commensurably higher rates of interest. In terms of who purchases the subordinated bonds, these may be sold to other investors (possibly in further tranches, each at a different interest rate), or the program sponsor itself may acquire them (thereby taking on the residual risk of the fund assets).

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46 For example, Commercial Union Australia Mortgage Insurance Corporation Ltd (CUAMIC); Housing Loan Insurance Corporation (HLIC); MGICA Ltd; Sun Alliance and Royal Mortgage Insurance Ltd.: Master Information Memorandum, PUMA Fund P-7, paragraph 8, above note 4.

47 See for example, Master Information Memorandum, PUMA Fund P-7, paragraph 6.1.

48 Ibid. paragraph 6.1.

49 See for example, L. Hsu and C. Mohebbi, ‘Credit Enhancements in ABS Structure’35, 37.

50 See for instance, Master Information Memorandum, PUMA Fund P-7, paragraph 4.5, above note 4.

http://www.bepress.com/gj/topics/vol5/iss3/art1
6.3 Cash Reserves

A third method of credit enhancement noted in the overseas literature, and sometimes used in Australia, is for the sponsor, usually via the SPV, to hold a specific cash reserve to address liquidity risk. In this way, liquid funds are available in the event of a delay between the trustee-issuer receiving funds from the home loan borrowers, and having to make payments to bondholders.

7. ISSUANCE OF RMBSs BY THE SPV

7.1 The Bonds Themselves

RMBSs are bonds secured (or “collateralised”) by a portfolio of mortgages over residential property. The bonds themselves are typically collateralised by a portfolio of security properties held in the mortgage pool, in addition sometimes to contractual “debt recourse” obligations, mortgage insurance, guarantees, or a combination of these risk-reduction methods. Indeed, the bonds are usually over-collateralised.

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51 Again, see for example, L. Hsu and C. Mohebbi, ‘Credit Enhancements in ABS Structure’.
52 For example, Macquarie Bank’s PUMA Fund holds a cash reserve known as a “principal cash balance”: see Master Information Memorandum, PUMA Fund P-7, paragraphs 6.4 and 4.4.7, above note 4. On each issue date, a certain amount of the proceeds of the issue of bonds is held as a principal cash balance, which is invested in authorised investments other than mortgages: see Master Information Memorandum, PUMA Fund P-7, paragraph 7.5, above note 4. The fund manager determines the amount to be held as the principal cash balance from time to time. Provided this does not result in a downgrading in the rating of the PUMA bonds, the principal cash balance must not at any time be greater than 2% of the then principal balance of all the bonds: Master Information Memorandum, PUMA Fund P-7 paragraph 4.4.7, above note 4. If the collections on housing loans, and any other collections, on a particular payment date are insufficient to meet the expenses of the Fund, including interest on the bonds, then the principal cash balance is used to pay those expenses.
53 Or strictly, risk transfer methods.
54 The value of the collateral in mortgage-backed securities is the liquidation value of the underlying security properties. There are number of reasons for over-collateralising bonds. First, the cash flow from the residential loans accrues first to the originator, and only then to the pool and ultimately to bondholders. Therefore there is a risk that balance available from the mortgage pool may not keep pace with the issuer’s obligations in relation to principal and interest payments on the bonds. Second, additional collateral protects bondholders against defaults on individual loans and against any decline in the market value of the security properties between valuation dates. Third, originators typically prefer this arrangement over higher-paying yields to investors as compensation for higher default risk and possible depreciation in the value of security properties. Payments on the excess collateral are reinvested and returned to the originators when the bonds are paid off: see C. Pavel, ‘Securitization’ (Jul-Aug. 1986) Economic Perspective.
They are typically structured in Australia as corporate bonds or commercial paper, with interest being fixed or variable rate, generally paid quarterly or semi-annually, and principal being paid at maturity of the bond facility, which in Australia is usually after a term of up to 35 years. This cash flow structure tends more to suit the requirements of institutional investors, many of whom prefer quarterly or semi-annual payments to the monthly principal and interest payments produced by residential mortgage loans.

(Federal Reserve Bank of Chicago) 16, 18. The value of the collateral is reviewed regularly and, when appropriate, re-valued to the market value of the pooled assets. The issuer may be required to “top up” the value of the collateral during the life of the bond issue to cover any prepayments or defaults.


56 For example, bonds issued by the trustee of Macquarie Bank’s PUMA Fund are structured as pass-through debt securities, issued by the trustee-issuer as floating rate or fixed rate bonds: see Master Information Memorandum, PUMA Fund P-7, paragraphs 2 and 4.3, above note 4. The bonds are secured by residential mortgages and other “authorised investments” in the Fund. Bonds will initially be issued in minimum parcels of a least $1,000,000, although each bond has a denomination (or face value) of $10,000. Bonds issued by the trustee of the PUMA Fund are offered to professional investors, and accordingly do not need to comply with the disclosure provisions relating to investors in section 708 of the Corporations Act. See Master Information Memorandum, PUMA Fund P-7, paragraphs 1.8 and 1.10, above note 4.

The bonds are issued in multiple series, with each series giving investors different rights. A series may comprise three classes of bonds - (1) Senior Bonds, (2) Subordinated Bonds, and (3) Fast Prepayment Bonds: Master Information Memorandum, PUMA Fund P-7, paragraphs 4.2, 4.5. Principal repayments on senior and subordinated bonds are made on quarterly coupon interest payment dates, and on Fast Repayment Bonds are made on monthly coupon interest payment dates. As a general rule, interest and principal payments on senior and Fast Prepayment Bonds rank ahead of those payments on subordinated bonds: see Master Information Memorandum, PUMA Fund P-7, paragraphs 4.3.5 – 4.3.7, 4.8. Senior bonds in each series are divided into tranches, and bear floating or fixed rate coupon interest. Subordinated bondholders are generally subordinated in favour of senior and Fast Prepayment bondholders in relation to both interest and principal. Fast Prepayment Bonds bear monthly payments of floating rate coupon interest and principal and convert to Senior Bonds if they are not fully repaid by the first quarterly coupon interest and payment date. These bonds are issued to assist in the funding of redraws of prepaid principal by borrowers and principal increases and further advances on the mortgage loans.

The bonds are typically issued in the form of registered securities. The actual debt obligation is constituted in a separate document from the security itself. In the separate document, the issuer promises to pay the investors, who from time to time appear on a register as a holder of the relevant security. Each bondholder is issued with a “bondholder acknowledgement” under which the trustee-issuer acknowledges that the bondholder has been entered in the register as the holder of particular bonds. See Master Information Memorandum, PUMA Fund P-7, paragraphs 4.12 and 4.13.

57 The payment of principal and interest on the bonds themselves is not dependent upon the cash flow of the underlying loan assets. Housing loan repayments typically comprise principal and interest (to reduce the risk of borrowers’ default), but such payments are said to be inconvenient for institutional investors, since the capital and income components of the repayments must be separated for different tax treatments, and the...
7.2 The Issuance Process

The process of issuing the RMBSs themselves typically commences with the trustee-issuer authorising a lead manager and/or a co-manager to sell some or all of the bonds in the primary market. The co-manager is usually required to underwrite the entire issue, although both it and the lead manager are involved in the marketing and distribution of the bonds themselves to investors. Conditions on secondary market sales by initial investors are generally contained in the documentation governing primary market sales.\(^{58}\)

After issuance, the bonds are uploaded to (or electronically lodged in) the Austraclear system,\(^{59}\) and Austraclear Ltd becomes the registered holder of the bonds.\(^{60}\) In Australia, virtually all RMBSs are issued as registered securities under the \textit{Corporations Act}.\(^{59}\)

8. BALANCE SHEET EFFECTS OF RMBSs

In an RMBS issue, when the mortgage receivables are sold to an SPV, the proceeds of sale or cash that is raised is recorded on the originator’s balance

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\(^{58}\) For instance, under Macquarie Bank’s PUMA program, the bondholders are entitled to transfer their bonds in the secondary market subject to the following conditions:
- the offer for sale or invitation to purchase of the bonds is not an offer or invitation that requires disclosure under Part 6D.2 of the \textit{Corporations Act}, or
- the transfer must be made in compliance with Part 6D.2 of the \textit{Corporations Act}.

The bonds are only purchased or sold by execution and registration of a Transfer and Acceptance in the prescribed form: see Master Information Memorandum, PUMA Fund P-7, paragraphs 4.12 – 4.15. The Bond Transfer and Acceptance Form must be duly stamped (if applicable), executed by the transferor and the transferee, and lodged for registration, together with a Bondholder Acknowledgement under which the issuer trustee acknowledges that the bondholder has been entered in the register as the holder of securities.

The trustee-issuer may refuse registration of the Bond Transfer and Acceptance if it is not duly executed or if it would result in a contravention of terms of the trust deed or relevant legislation. The trustee-issuer is not, under the conditions of the bond issue, bound to provide reasons for any refusal of registration.

Upon receipt of the transfer and acceptance form, the trustee-issuer registers the transferee in the Register of Bond Acceptance Transfers, which under the conditions of the bond issue constitutes passing of title in the bond to the transferee. Until this occurs, the trustee can recognise only the transferor as the holder, and all payment notices are made in the interim to the transferor.

\(^{59}\) Secondary market trades are effected by book entry transfers in the Austraclear system, rather than physical delivery of particular bond certificates.

\(^{60}\) See Master Information Memorandum, PUMA Fund P-7, paragraph 4.19 above note 4.
Sale of mortgage receivable in effect enables the originator to remove the loan assets from their balance sheet, in respect of which it would otherwise requires the originator to maintain capital under the regulatory capital adequacy guidelines of the Australian Prudential Regulatory Authority (APRA).\(^{61}\) This is illustrated in the Table 1 below.

### Table 1: Balance Sheet Impact of Securitising Assets of ABC Bank

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
<th>Equity</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receivables</td>
<td>Debt $100</td>
<td>Equity $100</td>
<td>Debt/Equity = 1/1</td>
</tr>
<tr>
<td>Equipment $100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. If ABC Bank borrows $100, secured by its receivables, its ratio of debt to equity deteriorates:

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
<th>Equity</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash $100</td>
<td>Debt $200</td>
<td>Equity $100</td>
<td>Debt/Equity = 2/1</td>
</tr>
<tr>
<td>Equipment $100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. But if ABC Bank sells $100 of its receivables (eg. to an SPV):

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
<th>Equity</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash $100</td>
<td>Debt $100</td>
<td>Equity $100</td>
<td>Debt/Equity = 1/1</td>
</tr>
<tr>
<td>Equipment $100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. And if ABC Bank then uses (for example) $90 of its cash to pay off some of its debt, its ratio of debt to equity dramatically improves:

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
<th>Equity</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash $10</td>
<td>Debt $10</td>
<td>Equity $100</td>
<td>Debt/Equity = 1/10</td>
</tr>
<tr>
<td>Equipment $100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(The table assumes that the receivables are sold at face value).


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\(^{62}\) For simplification purposes, mortgage receivables are recorded as $100; The content of this Table is based on S.L. Schwarz, *Structured Finance: A Guide to the Principles of Asset Securitization* (N.Y.: Practising Law Institute, 1993) 2.
Assigning its rights as mortgage lender therefore reduces the bank’s regulatory compliance costs, and its overall cost of funds.

9. SUMMARY

This article has examined the mechanics in structuring a residential mortgage securitisation program in Australia. The process of structuring a residential mortgage securitisation transaction can be summarised as:63

(i) making or purchasing mortgage loans (origination);
(ii) transferring the loans to a special purpose vehicle (SPV). In Australia, this SPV is invariably structured as a trust, whose funds comprise the principal and interest repayments from the initial housing loan borrowers, as well as the prices paid by investors for the mortgage-backed bonds it issues;
(iii) arranging for the credit enhancement of the bonds it issues, by various means including mortgage insurance, senior-subordinated debt structures, cash reserves, over-collateralisation, and third party guarantees;
(iv) regulatory compliance, including arrangements for regulatory relief from APRA for capital adequacy purposes;
(v) issuing the RMBSs themselves;
(vi) operating and managing the trust fund, including the mortgage pool; and
(vii) seeking to influence secondary market sales of RMBSs already issued.

From theoretical and practical perspectives, a number of key issues arise throughout this process, which can be addressed through further research on this topic. These key issues include:

- The impact of capital adequacy requirements for prudential supervision purposes, including whether the current risk-weighting of RMBSs is appropriate;
- How a “true sale” of mortgagee rights to the SPV is to be effected, and how the potential problems arising from the assignment of such rights are to be minimised or eliminated;

• How an SPV is to be structured so that it is “insolvency-remote”; and

• The consequences of any one stakeholder (or a number of them) in the chain becoming insolvent, together with techniques of minimising the risk of such insolvency for other participants.

REFERENCES


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