

THE AUSTRALIAN SECURITISATION MARKET 10 YEARS ON FROM *the Global Financial Crisis*

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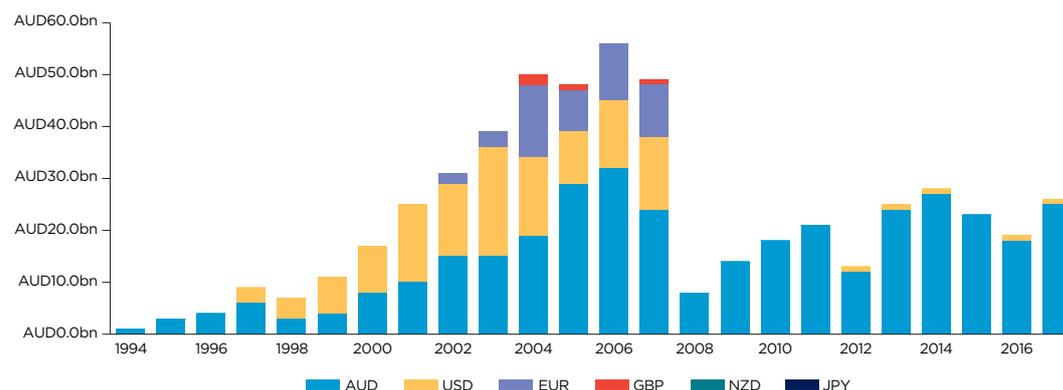
While the outlook for the Australian securitisation market is very buoyant, the market is currently transitioning to meet the requirements of the new prudential standard on 1 January 2018. Over the medium term, an additional challenge for the market will be to attain economic pricing of cross-currency swaps to enable the issue of tranches of residential mortgage-backed securities (RMBS) and asset-backed securities (ABS) in currencies other than Australian dollars, thereby providing greater access to a wider investor base. This paper was prepared for the Monash University and Australian Centre for Financial Studies' 22nd Melbourne Money and Finance Conference on 10–11 July 2017.

A sustainable securitisation market

The Australian securitisation market has rebuilt itself following the impact of the global financial crisis that commenced in late 2007 and continued until 2009. The volume of mortgage- and asset-backed securities denominated in Australian dollars has largely returned to the levels that prevailed in pre-crisis 2006 and 2007. However, issuance in non-Australian dollars is only a shadow of pre-crisis volumes largely due to the increased cost and regulatory changes that make the use of cross-currency swaps uneconomic for issuers.

Figure 1 illustrates the rise and decline of the Australian residential mortgage-backed securities (RMBS) market from inception to its pre-crisis peak and through to 2017.

FIGURE 1: Australian RMBS Issuance

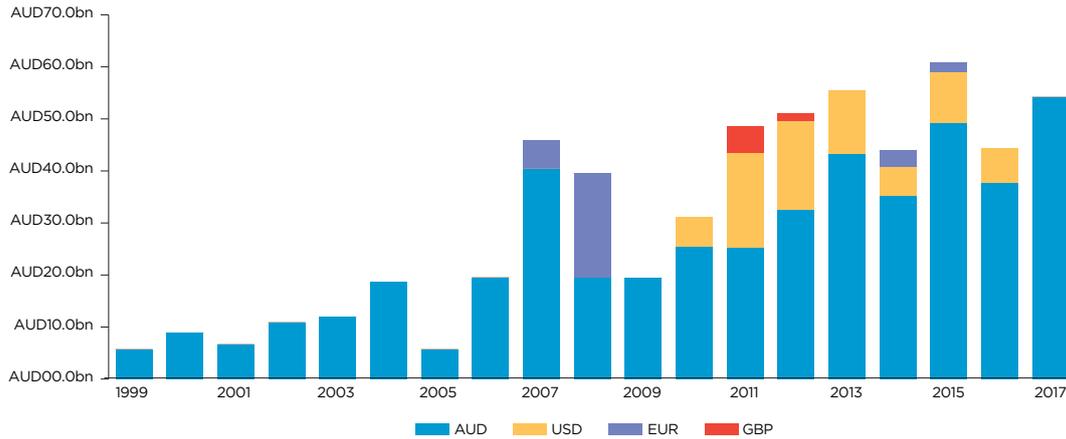


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Source: Macquarie Debt Markets Analysis.

Figure 2 illustrates the pattern of issuance of asset-backed securities (ABS) from the establishment of this segment of the market. While this is a smaller part of the securitisation market than RMBS, it is interesting to note that it didn't suffer the same contraction experienced by the RMBS sector. This was due to the scarcity of securities, their short tenor and the strong credit performance of the collateral. ABS issuers have been able to issue some securities denominated in currencies other than Australian dollars. ABS issuers, such as the Macquarie Group's SMART program, have issued ABS in US dollars as the short tenor of the underlying assets and margin on the receivables make the swap from Australian dollars to US dollars economic.

FIGURE 2: Australian ABS issuance



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Source: Macquarie Debt Markets Analysis.

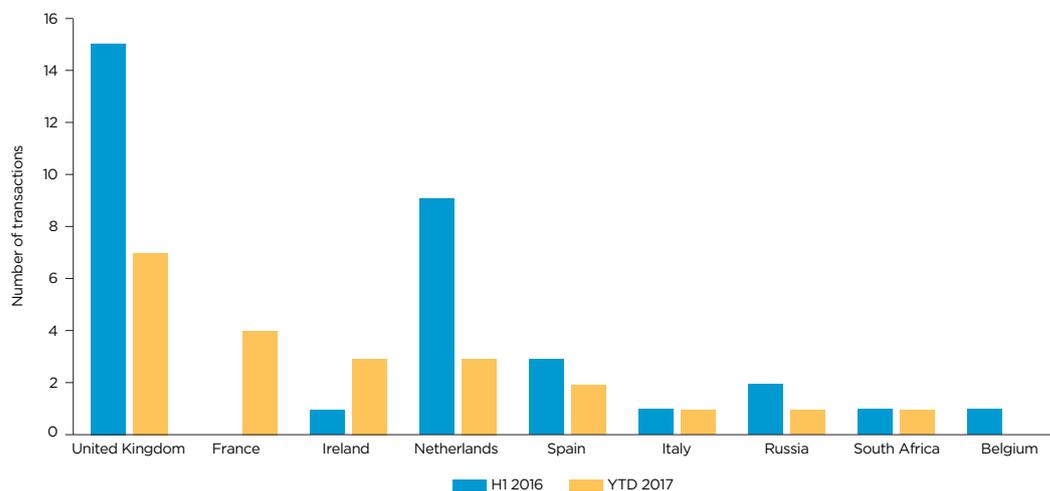
Today's market

The Australian securitisation market is different in character from its pre-crisis form. Residential mortgages remain the dominant asset class with auto and equipment receivables continuing to provide attractive diversification opportunities for investors. But casualties of the financial crisis and its aftermath have been the commercial mortgage-backed and asset-backed commercial paper sectors, which have effectively disappeared as a result of both changes in risk appetite and regulatory reform. Today's market is characterised by a wider variety of ADI issuers from the major banks, regional banks, mutual banks and non-banks.

The Australian RMBS market is one of the few markets that has continued to function with relatively regular issuance since 2008. In the first half of 2017, total Australian RMBS issued in the public markets reached an Australian dollar equivalent of \$13.25bn, up from \$7.3bn in the previous year. In contrast, Figure 3 illustrates the limited primary market activity in the European market.

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FIGURE 3: EMEA RMBS 2016 vs. 2017

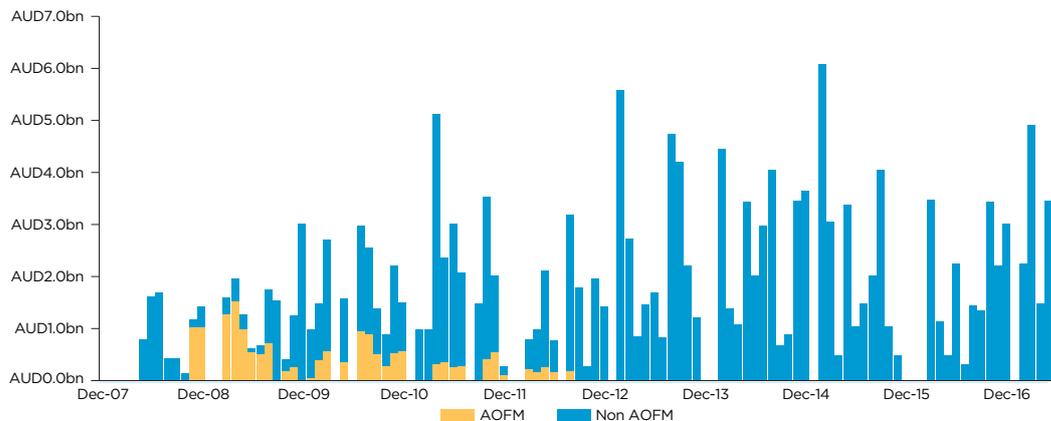


Source: Moody's Investors Service.

Supportive government policy

Ten years on from the crisis, credit should be given to two government initiatives that supported the securitisation market in the immediate aftermath of the crisis and the wider Australia mortgage market through bolstering funding alternatives for large banks. The first was the successful government directive in 2008 to use the Australian Office of Financial Management (AOFM) to intervene and invest in new issues of prime RMBS issued by smaller banks and non-banks. The then Treasurer, Wayne Swan, authorised the AOFM to invest up to \$20 billion. This was a vital initiative that allowed smaller lenders to continue to operate their businesses to finance residential property and fund new loans through the capital markets at reasonable rates. This initiative was successful as it achieved its stated purpose of supporting the market at a time when credit markets were somewhat dysfunctional. The initiative was also successful as not all of the \$20 billion was needed to be invested; it provided temporary support and, overall, it has been a very profitable investment for the government. Figure 4 illustrates the quantum and timeframe of the AOFM program.

FIGURE 4: AOFM investment in Australian RMBS



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Source: Macquarie Debt Markets Analysis.

The second initiative was the 2011 amendment to the Banking Act to allow banks to issue covered bonds. The ability to issue covered bonds provided yet another option for large banks to fund their mortgage portfolios. The major four domestic banks were the initial issuers of covered bonds in 2012. Since then, Macquarie Bank, Suncorp Bank and Bank of Queensland have established covered bond programs. RMBS continues to be the preferred and most cost-effective way for smaller banks and mutual banks (former building societies and credit unions) to raise term funding in the wholesale markets.

The post-crisis domestic investor base has also evolved in character partly in response to the liquidity rules introduced by Australia's adoption of Basel III. The domestic investor base can be classified into the institutional credit and fixed income managers, bank liquidity books, bank balance sheets and a small but growing sector of new specialist credit funds and even private high-net-worth investors. The inclusion of RMBS and ABS as eligible assets under the Reserve Bank of Australia's (RBA's) committed liquidity facility (CLF) underpins the demand for new securities.

Regulatory reform of Australia's securitisation market

The financial crisis of 10 years ago sparked a firestorm of regulatory reform of global securitisation markets. The crisis highlighted deficiencies in the origination, distribution, investment and regulation practices of some securitisation markets (primarily the United States).

The regulatory response of key regions such as the US and Europe have been varied and somewhat uncoordinated. Australia's securitisation market did not exhibit many of the problems witnessed in the US and Europe during the financial crisis. However, it became clear that Australian Prudential Regulation Authority's (APRA) APS 120, the primary prudential regulation for securitisation for Australia's regulated financial institutions, needed to be overhauled to provide a more comprehensive and contemporary framework for the market. This reform spanned several years and was only concluded in 2016.

Risk retention — ‘skin in the game’

One of the key headline issues addressed by global regulators was the misalignment of interests between issuers and investors in certain pre-crisis securitisations. Regulators identified the need for originators or sponsors of securitisations to have ‘skin-in-the game’.

The major markets of Europe and the US took different approaches to this issue while Australia, through APRA, reflected on practices in the Australian market and the merit of minimum risk retention by securitisers. Table 1 highlights the disparate approaches taken to this issue. Not only is there no commonality among regulators on this issue there has been no serious attempt to grant mutual recognition among jurisdictions.

TABLE 1: Different approaches to minimum risk retention in various markets

Market	Regulatory requirement	Obligation
Europe	Minimum 5% risk retention	Obligation on investors to be satisfied risk retention requirement is met
US	Minimum 5% risk retention, subject to variations and exemptions of certain asset classes	Obligation on issuers to comply with risk retention requirement
Australia	No minimum risk retention requirement	Banks cannot achieve full capital relief for a transaction even if significant risk transfer has been achieved

Europe is now progressing regulations to govern simple, transparent and standardised (STS) securitisations. The detail of this new framework is currently being finalised by the European authorities with implementation of an STS framework not expected before mid-2018.

Australia’s regulatory response

After two consultations APRA released the final version of its prudential standard governing securitisation, APS 120, in November 2016. In April 2017, it released the final version of the practice guide APG 120 and, in May 2017, it released the reporting requirements under ARS 120, to compliment the standard. The new standard is to be implemented in January 2018.

APRA defines a securitisation to be where the cash flow from a pool of financial receivables is used to service obligations to two or more tranches/classes of ‘creditors’ (i.e. debt obligations) with each tranche reflecting different levels of credit risk.

The new standard governs an authorised deposit-taking institution’s (ADI) exposure to a securitisation whether it is as an:

- > issuer
- > an investor, or
- > a facility provider (e.g. swap or warehouse facility).

Unlike other jurisdictions, the Australian prudential framework is not prescriptive. It is principles-based and intended to operate in the nature of broad guidelines. It also governs public securitisations and private securitisations (e.g. warehouse facilities and internal securitisations).

The focus of the current version of APS 120 (which will be superseded in January 2018) is on the requirements which an ADI must meet in order to achieve full regulatory capital relief for the transaction. APRA’s focus to date has been that depositors of an ADI are not exposed to any risk arising from the transfer of assets to a bankruptcy remote special purpose vehicle (SPV). Under the new standard this is now expressed as a quantitative threshold:

- > an ADI can retain no more than 20 per cent of non-senior securities issued (in aggregate, and of any tranche) (A senior securitisation exposure is effectively backed or secured by a first claim on the entire amount of the assets in the underlying pool, whereas a non-senior securitisation exposure is subordinated to another securitisation exposure.)
- > an ADI cannot hold or fund the acquisition of non-senior securities and provide other loss positions or credit enhancements which represent more than 20 per cent of the loss cover for senior securitisation exposures, at any time
- > non-senior securities must be sold to third parties. APRA wants to see a clean transfer of these and not have originating ADIs relying (in APRA’s eyes) on less reliable synthetic techniques, hedges or credit risk mitigation to achieve capital relief

- > an ADI cannot repurchase non-senior securities once sold other than to affect a 10 per cent clean-up call (no date-based calls are allowed for capital relief deals)
- > funding through securitisation must be in place for the life of the underlying pool (i.e. securities issued are sufficient to fund securitised assets up to their longest contractual maturity date)
- > APRA expects originating ADIs to 'measure, monitor and manage liquidity risk of call options'
- > retained securities and other securitisation exposures (e.g. swaps) are risk weighted or deducted from CET1 capital (depending on rating)
- > there is a cap on the total capital requirement: no more than would have been held against assets had they not been securitised.

The new standard provides guidelines for:

- > funding-only securitisations where no capital relief arises from the transaction
- > capital relief transactions that can achieve up to 80 per cent reduction in regulatory capital
- > master trust structures
- > internal securitisations that are established to provide a portfolio of securities which can, in certain circumstances, access liquidity from the RBA.

Notably the new standard explicitly permits the issue of securitisations where the originating ADI does not desire to achieve regulatory capital relief in respect of the securitised assets. The new standard provides much-needed and welcome clarity on this.

Where the transaction is a funding-only securitisation, the securitised assets are included when calculating regulatory capital for credit risk, subject to the requirements of APS 112 or APS 113. The new standard clarifies that an ADI does not need to have regard to the interposed structure when assigning risk weights to securitised assets. An ADI does need to hold regulatory capital (credit risk) for facilities or exposures to the securitisation SPV where those relate to the securitised assets (e.g. interest rate swaps).

While the standard adopts a pragmatic approach to funding-only securitisations, it does not provide complete flexibility for such securitisations. It maintains restrictions on any form of implicit support, restrictions on the ability to repurchase underlying assets, requirements and limitations in relation to the provision of services and facilities, and it maintains a regulatory stance that frowns on excessive purchases of senior securities by the originating ADI (although the revised '20 per cent rule' is now in guidance only and APRA has indicated that it will take a pragmatic approach).

The new standard includes a provision to allow an ADI to incorporate a date-based call in the structure. This is an important improvement for Australian securitisations as it will attract those investors who prefer to invest in a bullet style of security. To incorporate a date-based call, the non-senior securities must share pro rata loss allocation and have the same maturity i.e. no credit tranching of non-senior securities. A call date can be changed post-issuance.

An originating ADI must retain discretion to exercise a call, and cash flows from securitised assets must be able to meet any margin step-up if the call is not exercised. APRA requires that an ADI cannot structure a call to avoid allocating losses to investors, or create credit enhancements. A soft bullet (i.e. date-based call) can be funded by the originating ADI, but it should be noted that for LCR purposes they are modelled as an outflow at the earliest exercise date.

A major push by industry over recent years has been to have the new standard allow master structures to be used by ADIs. APRA has allowed such structures defining them as 'securitisation of revolving credit facilities'. In such structures, the 'seller interest' cannot be subordinated with respect to cash flows or losses to other senior securitisation exposures. That is the seller interest must rank pari passu with senior notes issued to investors. The senior interest must be retained by the issuing ADI. Hence, from 2018 onwards, ADIs will be able to issue securities with a soft bullet maturity date which is effected by a date-based call. This will permit multiple series of securities to be backed by the same pool of underlying assets.

Conceptually, master trusts could fund not only mortgages but also credit cards and other revolving assets. However, the way the new APS 120 is drafted makes it more challenging to construct a master trust for revolving assets such as credit cards.

A key differentiation of Australian master trust structures from UK and US structures is that if an amortisation event (scheduled or early) occurs:

- > the Australian master trust cannot subordinate seller interest, further subordinate junior tranches or in other ways increase an originating ADI's exposure to losses in the underlying assets
- > it ends the trusts' ability to add new assets to the pool or fund further draws
- > the trust goes into run-off (similar to an ordinary term securitisation).

This requirement introduces difficulty in establishing commercially viable master trusts of certain assets (e.g. credit cards) in practice.

In master trust structures, the management of seller interest, dealing with volatility in prepayment rates etc., is likely to be best suited to larger ADIs.

Regulatory capital treatment of Australian securitisations

From 2018, ADIs will need to access the type of securitisation that will be most suitable for them. A key consideration will be cost funding through securitisation. Two simple examples of the costs of funding through either a funding-only or capital relief structure are provided as follows.

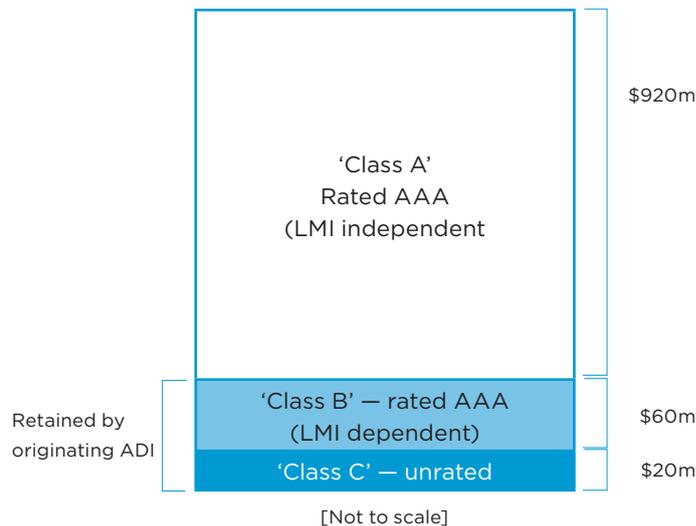
Example of a funding-only securitisation:

Illustrative calculation

Funding costs (Class A)
 BBSW1M + 120 = -280bps
 5-year deposit = 3.00%
 Cost of equity = 15%
 CET1 ratio = 10%
 Avg RWA of mortgages = 35%

Total cost

Senior	= \$25.75m
Retained	~ \$1.35m
Capital	= \$5.25m
	<hr/>
	~ \$32.36m



The above cost of this simple funding-only securitisation has been calculated as follows:

Capital:	\$1 billion x 35% x 10% = \$35 million of equity funding x 15% = \$5.25 million
Class A:	\$920 million x 280 bps = \$25.76 million
Classes B & C:	\$80 million - \$35 million (equity funded) = \$45 million x 300bps (deposit rate) = \$1.35 million

Hence, the cost of funding \$1.0 billion of residential mortgages through a funding-only securitisation is \$32.36 million, at an average funding rate of approximately 3.26 per cent.

Example of a capital relief securitisation:

Illustrative calculation

Retain 20% of non-senior

Funding costs:

A: BBSW1M + 120 = -280BPS

B: BBSW1M + 200 = -360BPS

C: BBSW1M + 300 = -460BPS

D: BBSW1M + 600 = -760BPS

Cost of equity = 15%

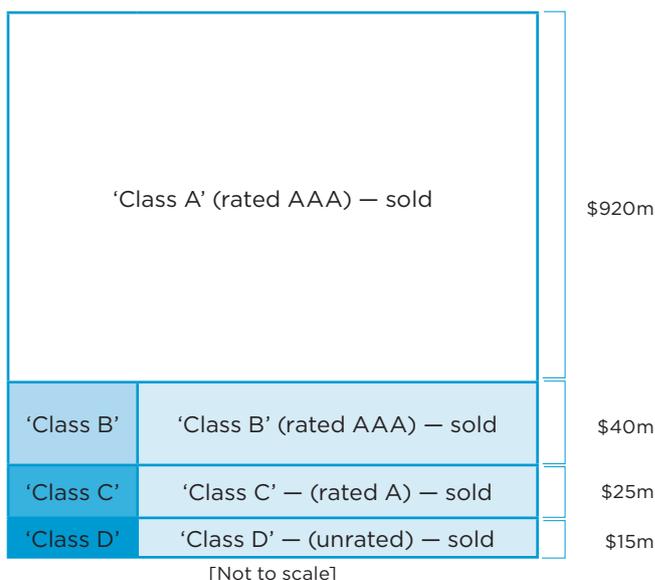
Total cost

Senior = \$25.76m

Sold non-senior = \$2.98m

Capital = \$1.28m

= \$30.02m



Notes sold to investors	Subordinated Notes retained (20%)
Class A: \$920m x 280 bps = \$25.76m	
Class B: \$32m x 360 bps = \$1.152m	\$8m x 65.8% x 10% x 15% = \$0.08m
Class C: \$20m x 460 bps = \$0.92m	\$5m x 15% = \$0.75m
Class D: \$12m x 760bps = \$0.912m	\$3m x 15% = \$0.45m

Note: the retained Class B exposure is assumed to be risk weighted as per APS 120 Attachment C; the retained portions of Class C & D are CET1 deductions.

The above example of a \$1.0 billion capital relief transactions implies an all-up average funding rate of 3.02 per cent.

Determination of regulatory capital risk weightings

The revised Basel Securitisation Framework (Basel III) released in 2015 established the parameters within which APRA could implement a compliant securitisation standard for Australian ADIs. In overhauling APS 120, APRA chose to incorporate further elements of conservatism. Two key elements will influence the evolution of the next phase of the Australian securitisation market: the permitted risk-weighting approaches ADIs are allowed to use in determining regulatory capital for securitisation exposures; and the actual risk weights to be applied.

The new APS 120 only allows two risk-weighting approaches compared to the five permitted under the Basel Framework. Australian ADIs can choose either the external ratings-based approach (ERBA) or the supervisory formula approach (SFA).

The standard does not allow the internal assessment approach (IAA), which was a feature and concession of the current standard and will be accepted under EU Securitisation Regulation. The restriction to only allow the use of the EBRA or SFA approaches will increase the capital required for securitisation exposures. APRA has made further conservative modifications to the EBRA approach including:

- > no granularity
- > variable maturity
- > re-securitisations will be a capital deduction
- > a large increase in risk weights.

The second, and probably most significant aspect of the new securitisation prudential standard is the dramatic increase in risk weighting specified for use in calculating regulatory capital. Table 2 illustrates the changes in risk weights mandated under the ERBA. A few examples illustrate the impact of the revised risk weightings.

Under the current version of APS 120 a senior ranking securitisation exposure rated 'AAA' requires a risk weighting of around 7.0 per cent to be used in calculating regulatory capital for the exposure. Under the new standard this increases to at least 20 per cent. For an exposure rated 'A' the current approach suggests a risk weight of 12 per cent for a senior exposure. The new standard will see this risk weight factor increase to 65.0 per cent for a prime residential mortgage, a greater than fivefold increase.

Under the Basel Framework, the minimum risk weighting is 15 per cent (previously 7 per cent). Based on that, the incremental increase for a one-year 'AAA' exposure is not significant. However, as demonstrated in Table 2, the risk weights are significantly higher for longer-dated exposures and junior exposures under the new APS 120.

TABLE 2: Risk weights under the current and new APS Standard

	Rating	Current		NEW APS 120 (2018)			
		Senior current	Senior current	Senior 1 year	Senior 5 year	Junior 1 year	Junior 5 year
Long term ratings only shown here	AAA	7%	12%	15%	20%	15%	70%
	AA+	7%	12%	15%	30%	15%	90%
	AA	8%	15%	25%	40%	30%	120%
	AA-	8%	15%	30%	45%	40%	140%
	A+	10%	18%	40%	50%	Tier 1 deduction	Tier 1 deduction
	A	12%	20%	50%	65%	Tier 1 deduction	Tier 1 deduction
	A-	20%	35%	60%	90%	Tier 1 deduction	Tier 1 deduction
	BBB+	35%	50%	75%	50%	Tier 1 deduction	Tier 1 deduction
	BBB	60%	75%	90%	105%	Tier 1 deduction	Tier 1 deduction
	BBB-	100%	100%	120%	140%	Tier 1 deduction	Tier 1 deduction

Adjustment for thickness

Source: NAB.

At this point, APRA has made no provision for 'simple, transparent and comparable' (STC) securitisations under APS 120. Under the Basel securitisation framework (proposed for the EU Securitisation Regulation), STC compliant securitisations will be able to obtain concessional risk weight treatments. It will soon become a point of discussion as to whether such a regime will be implemented in Australia and whether risk-weight concessions will be introduced under APS 120.

Post 2018 market outlook

The market is currently absorbing the detail and implications of the new prudential standard and it is transitioning to revised structures and facility terms and conditions to be ready to meet the requirements of the new standard on 1 January 2018. What Australia has, in contrast with Europe and to a lesser extent the United States, is a settled regulatory framework within which to operate. Costs associated with securitisation are expected to increase significantly as a result of the increases in the regulatory capital discussed above. Notwithstanding these challenges, securitisation will remain a useful part of most ADIs' funding plans.

The outlook for the Australian securitisation market in 2017 is buoyant. It is expected that over the next 18 months there will be a healthy supply of RMBS and a growing amount of ABS issued.

The outlook for the Australian securitisation market in 2017 is buoyant. It is expected that over the next 18 months there will be a healthy supply of RMBS and a growing amount of ABS issued. RMBS will continue to be the dominant asset class and will be supported by the Australian central bank's acceptance of RMBS as security for its secured liquidity facility as part of Australia's implementation of the liquidity provisions of Basel III. This optimism also stems from an increase in superannuation fund allocation to domestic Australian fixed income funds, which is in line with investor risk reappraisal; a recognition by investors of the benefits of fixed income as an asset class amidst the continuing volatility in equity markets. Domestic funds are re-entering the market for quality RMBS as the secondary supply reduces and a compelling value proposition develops.

The more medium-term challenge is for the market to attain economic pricing of cross-currency swaps to enable the issue of tranches of RMBS and ABS in currencies other than Australian dollars, thereby providing greater access to a wider investor base. Attracting further global investors, particularly investors seeking securities denominated in US dollars, to the Australian securitisation market will assist issuers to diversify and increase their funding options and provide greater certainty to pursue business planning. It will also increase the number of investors participating in Australian securitisation transactions and will improve liquidity for investors.