How Will Basel 3 and Associated Regulatory Changes Affect the Investment Strategies of Superannuation Funds?

Brad Carr
Director, Superannuation Funds, Financial Institutions Group
National Australia Bank

The inter-connections between banks and superannuation funds

There are significant inter-connections between the banking and superannuation segments of the Australian financial services industry. Superannuation funds use an extensive range of bank products and services, from transactional banking, cash management and custodial services, to hedging and investment products.

Superannuation funds also invest significant sums of money in banks – in deposits, in a variety of bank securities, and in bank stocks. As an economy that has historically had an under-developed domestic bond market, Australia has relied on the intermediation of banks to fund the economy, ensuring that trends in banking are highly pertinent for the investor community.

As a consequence, when major regulatory changes emerge within the banking system the impacts will not be quarantined to the banking sector alone, but will affect superannuation funds in their capacities as both bank customers and investors.

Re-Regulation

Representing arguably the biggest change to global banking regulation since the end of Bretton Woods in the early 1970's, the new regulatory changes have profound impacts for Australian and international banks, both domestically and in offshore markets. These change the way banks manage their businesses, including how they interact with their customers across all sectors of the economy.

Whilst there is a temptation to focus on Basel 3 (particularly from the perspective of the Australian banking sector), this global trend towards the 're-regulation' of financial services is certainly not limited to Basel, with several other changes progressing in parallel, most notably:

- Dodd Frank, including OTC derivative reforms, the Volcker Rule, Lincoln Push-out and, Collins Amendment ; this huge regulatory program included 236 new rule-making requirements across 16 titles; currently, 48% of final rules have been published, 29% are published in draft form, and 23% are yet to be published[1]
- The Vickers Report (UK), which proposed to 'ring-fence' UK banks' retail operations, with the UK Independent Commission on Banking articulating a need to "electrify" that ring-fence[2]
- Solvency 2 (Europe) and Australia's Life And General Insurance Capital (LAGIC) requirements, which set governance, risk management and capital requirements for insurers, broadly harmonised with the Basel 3 requirements for banks

The European Union and the European Insurance and Occupational Pensions Authority (EIOPA) have also been exploring the extent to which pension funds might also be regulated in the future, perhaps along the lines of Solvency 2.[3]

---

[1] US Government Accountability Office (GAO), *Report to Congressional Addresses*, January 2013
[2] Independent Commission on Banking: The Vickers Report, *Standard Note SNBT6171*, House of Commons Library, 3 January 2013

Driving these changes are the weaknesses in some parts of the global financial system that were highlighted in the Global Financial Crisis (GFC). Significantly, a recent World Bank report made a key differentiation on how these themes had impacted national economies between what they termed "crisis countries" (including US, UK, France, Ireland) and so-called "non-crisis countries" (eg. Australia, Canada, China, Japan).[4] Specifically, they identified that the banking systems in crisis countries had:

- Less stringent definition of capital
- Lower actual capital ratios
- Fewer restrictions on non-bank activities (eg. investment banking)
- Looser treatments for bad loans and provisions
- Regulators unable to demand banks put up more equity or suspend bonuses

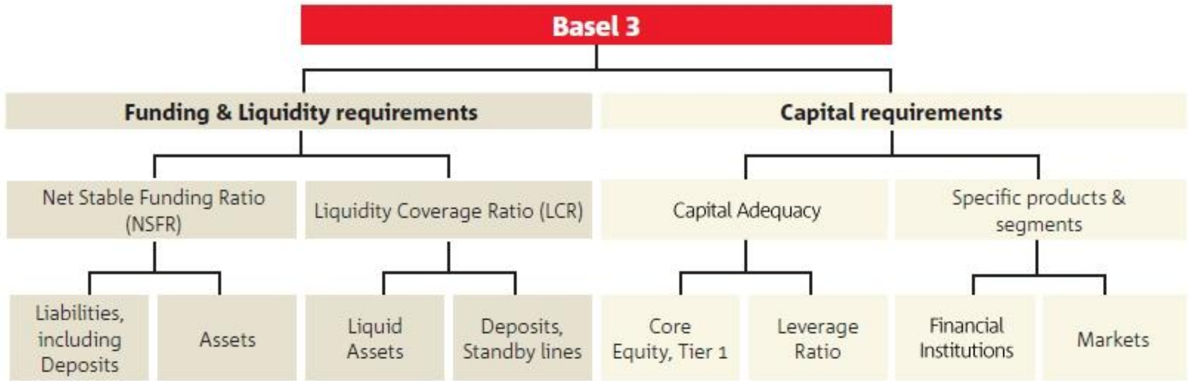
Basel 3

It is in this context that banking regulators have developed the third Basel Accord, with banking regulators in all G20 member-nations developing or enhancing their own banking regulations accordingly.

While it has been widely accepted that Australian banks are better regulated than the majority of their global counterparts and do not exhibit the weaknesses outlined above, Basel 3 is a global standard and will be applied in Australia, under the regulations of the Australian Prudential Regulation Authority (APRA). Similarly, these changes will also affect international banks in their home markets (based on how their domestic regulator implements Basel 3), but also in the way they operate in Australia.

The Basel 3 requirements on banks can be broadly categorised into 2 areas: (i) funding and liquidity, and (ii) capital (see Figure 1).

Figure 1: Key Areas of Basel 3



Basel 3: Funding and Liquidity

Basel 3's most direct impacts in the Australian market are on the funding and liquidity side, with significant impacts for the returns that various customer segments (including superannuation funds) will generate on cash holdings with banks.

[3] European Insurance and Occupational Pensions Authority, *EIOPA Publishes Final Guidance on the IORP Directive Review*, 15 February 2012

[4] World Bank Policy Research, December 2012

The Net Stable Funding Ratio (NSFR) aims to reduce banks' structural reliance on short-term funding, by requiring banks to hold more 'stable' forms of funding, such as 'stickier' retail deposits and longer-dated wholesale funding, rather than short-term money market funding or deposits from institutional investors.

Concurrently, the Liquidity Coverage Ratio (LCR) requires banks to hold sufficient unencumbered, high-quality liquid assets for the net cash outflows they might experience in the event of a 30-day liquidity shock.

Taken in concert, these ratios will together help to ensure that banks have stronger liquidity profiles, strengthening their ability to withstand a future crisis. But the specific factors within these ratios also create imperatives for the investor community, if they are to optimise their cash holdings.

Significantly, both of these ratios give a much more favourable weighting (and effectively value) to longer-term funding and to deposits from bank customers designated as Retail and Small & Medium-sized Enterprises (SME), compared to Corporate and Public Sector Entity deposits, which are in turn rated higher than deposits from 'Financial institutions' (see Figure 2). Crucially, APRA have indicated that superannuation funds will be treated as 'Financial Institutions', whilst Self-Managed Super Fund (SMSF) depositors are eligible for the more generous 'Retail' treatment.

Figure 2: Values applied to Deposits from Banks' Customer Segments[5]

	NSFR: value as stable funding for deposits < 1-year	**LCR: assumed run-off of deposits < 30-days[6]**
Retail & SME customers, including Self Managed Super Funds ("SMSF")	80-90%	5-25%
Corporate & Public Sector Entity customers	50%	40%
Financial Institutions, including Superannuation Funds	0%	100%

As such, for institutional funds, banks would prefer funding that is for greater than 1 year (for NSFR value), or at least out for tenors beyond 30 days (to mitigate the LCR requirement for liquid assets).

The NSFR also demands a higher level of stable funding be in place for illiquid assets, such as infrastructure and corporate loans with longer tenors. Meanwhile, the LCR requires banks to hold a portfolio of high-quality liquid assets against the potential withdrawal of funding, in the event of a 30-day liquidity shock. The LCR run-off assumptions in Figure 2 mean that for shorter-dated deposits from a Financial Institution, the receiving bank will need to hold a liquid asset on a dollar-for-dollar basis against that deposit, whereas they may only need to do so for as little as 5% of a Retail deposit.

Whilst the Basel Committee has defined HQLA to include a broad range of assets such as corporate and covered bonds, Registered Mortgage-Backed Securities (RMBS) and equities, APRA has declared that only sovereign bonds have sufficient liquidity to be eligible as HQLA for the Australian

[5] APRA Draft Prudential Standard APS 210, May 2013
[6] Assumptions vary for operational cash holdings including those in transactional and custody relationships; the values shown here apply to investments, including Term Deposits

jurisdiction. With only a limited supply of government debt available in Australia, the RBA is extending a secured Committed Liquidity Facility (CLF) to partially augment the available stock of HQLA for Australian banks.

Australian banks have some substantial ground to make up against both the NSFR and LCR, with APRA's 2011 analysis of Australia's six largest banks showing shortfalls on both measures (see Figure 3).

Figure 3 – APRA June 2011 Pro-forma[7]

Net Stable Funding Ratio (NSFR)	
Available Stable Funding	A$1,340b
Required Stable Funding	A$1,680b
NSFR (> 100% required)	79.8%

Liquidity Coverage Ratio (LCR)	
Qualifying Liquid Assets	A$132b
Net Cash Outflows	A$429b
LCR (> 100% required)	30.8%

The Australian banking system's starting-point on these measures is a function of our economy, in which we have historically had a low domestic savings rate into the banking system, relatively low levels of government debt, and limitations on the depth of the domestic bond market. We also have a capital-intensive economy in which investment is required for longer-term infrastructure and resources projects, which has necessitated Australian banks 'importing' wholesale funding.

Given the magnitude of these shortfalls, the introduction of these measures significantly influences banks' behaviours. There is unlikely to be a 'silver bullet' or simple solution to these challenges, meaning that banks' deposit pricing and product offerings will be heavily shaped by the requirements of the NSFR and LCR.

Basel 3: Bank Capital
Australian banks are generally well-capitalised, with all major banks at or near the new levels required under Basel 3.

As such, the major impacts regarding capital where Australian banks are concerned will be more focused around specific products (eg. derivatives) and defined customer types (large or unregulated Financial Institutions). However, several international banks will be subject to balance sheet constraints whilst they re-build their capital reserves to meet the new requirements.

Basel 3 requires that banks hold significantly more capital for the Counterparty Credit Risk (CCR) on their derivatives transactions, such as interest rate swaps, cross currency swaps, inflation swaps and FX forwards. The Basel Committee has published an estimate that the required capital for derivatives products will (on average) double[8].

For capital-constrained international banks, this compounds an already severe challenge. Australian banks will have sufficient capital to be able to comply, but there will be price impacts if banks look to maintain their return on capital.

The impacts will be greater for trades that are longer-dated, uncollateralised and involve a principal-exchange (such as cross currency swaps). Accordingly, Credit Support Annexes (CSAs) are becoming

[7] APRA, *Basel 3 Impacts & Implications for Australia*, 23 November 2011
[8] BIS Basel Committee on Banking Supervision, *Press Release: Basel Committee finalises capital treatment for bilateral counterparty credit risk*, 1 June 2011

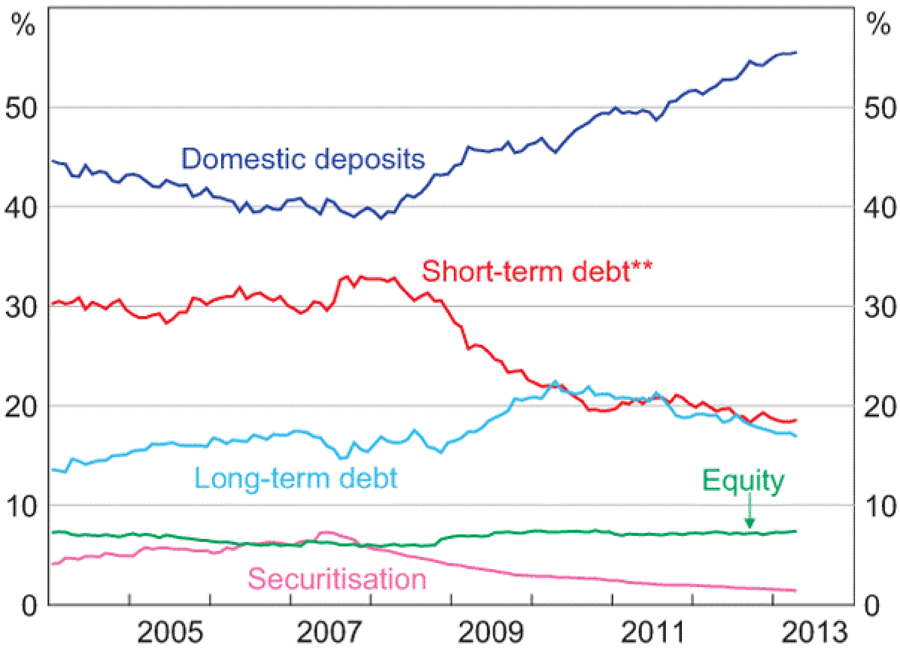
increasingly important tools, not only for managing counterparty risk on derivatives, but also to collateralise derivatives trades and drive more favourable pricing.

Additionally, there is a further multiplier that banks need to apply in their capital requirements for exposures to counterparties that are large or unregulated financial institutions. Whilst Australian superannuation funds each currently have Funds Under Management (FUM) of less than $100b and so should not be affected if contracting with a bank counterparty directly, this may arise as an added 'capital cost' factor if the superannuation fund executes its hedging via an external fund manager (if that manager is large or unregulated).

The Cash Market

Banks have already been adjusting their funding profiles as a market response since the height of the GFC, with Australian banks shifting their funding bases away from short-term debt, and instead towards an increased base of domestic deposits (see Figure 4).

Figure 4: Funding Composition of Banks in Australia[9]

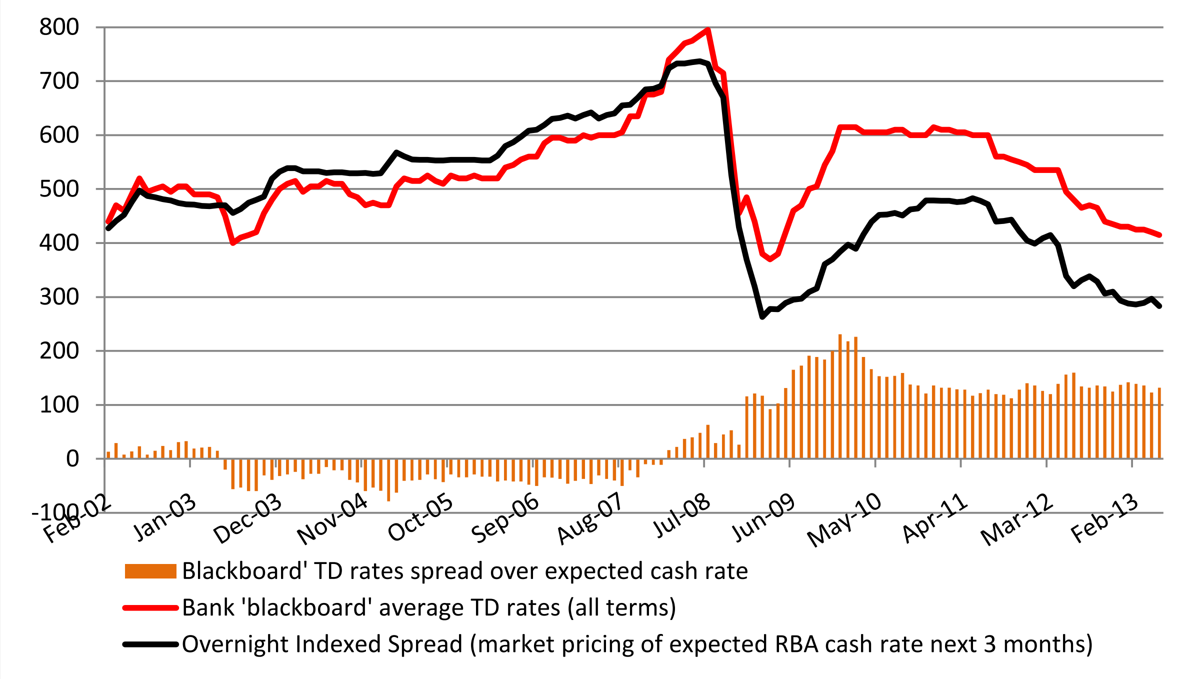


The impact of Basel 3 then is to solidify this shift as a structural change, preventing any mean-reversion as market conditions change.

Concurrent to the shifts observed in bank funding composition, the pricing of bank deposits (for Retail depositors) also increased significantly at the height of the crisis, and has consistently averaged in the range of 125-150bp above the cash rate in recent years, as opposed to being approx. 50bp below cash pre-crisis (see Figure 5).

[9] Sources: APRA, RBA, Standard & Poor's

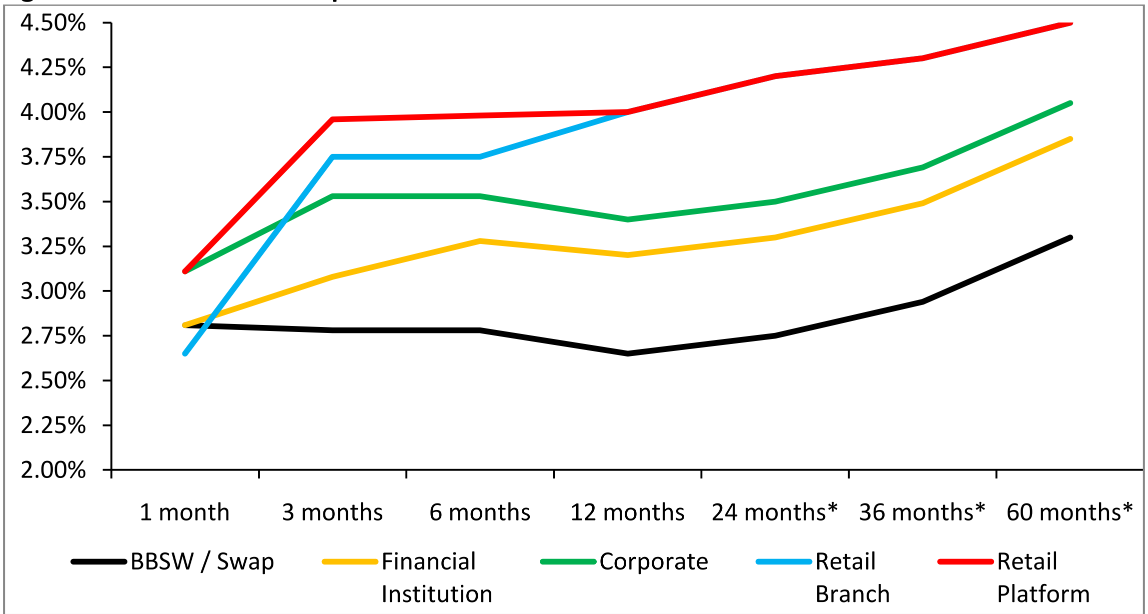
Figure 5: RBA Cash Rate Pricing and 'Blackboard' TD Rates[10]



Given the structural shifts generated by Basel 3, it is considered unlikely that this gap relative to the cash rate will converge. Indeed, when the demand for credit subsequently picks up and investor confidence in other asset classes recovers and investors look to switch out of bank deposits, it may be that this spread to cash actually diverges further.

Concurrently, there is also a significance in the values that the Basel 3 ratios attach to different funding sources, being especially favourable to 'Retail' depositors and to longer-tenor funding. Whilst this is still emerging, it can be seen in NAB's current pricing of Term Deposits (see Figure 6).

Figure 6: Indicative NAB Deposit Yields[11]



* Indicates interest paid annually but can be modified to pay quarterly or semi annually.

---

[10] Source: RBA

[11] Indicative rates as at 19 June 2013

For institutional superannuation funds, the advantage for Retail and SMSF depositors adds to the importance of member engagement, and the challenge for those funds with members more oriented towards conservative investments. This has become a supporting driver for the development of 'Member Direct' investment options, enabling superannuation funds' members to direct investment choices themselves.

Liquid Assets

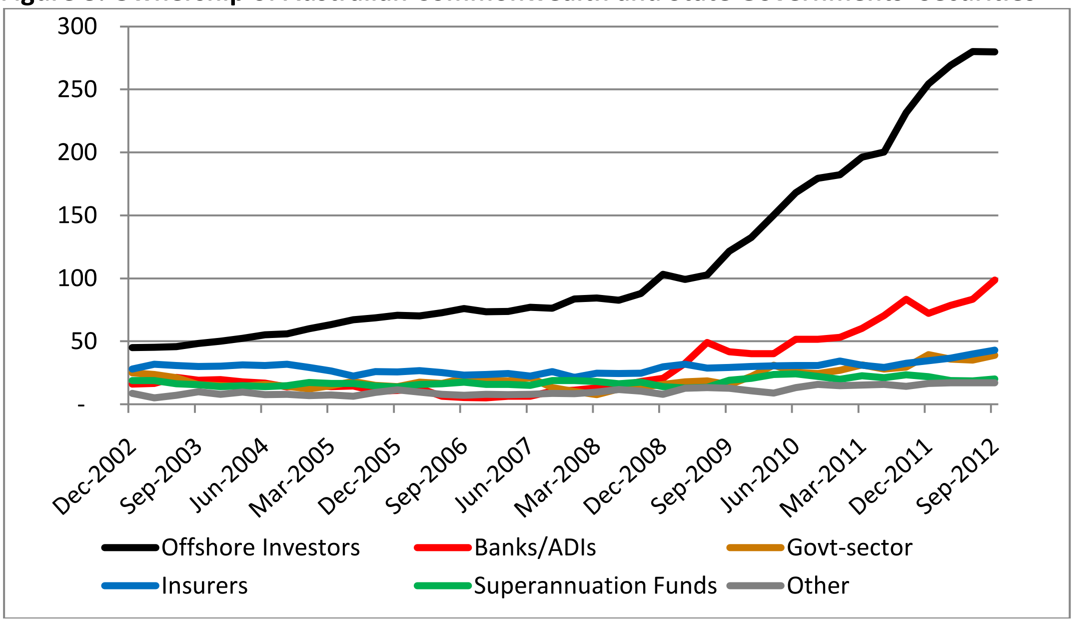
The limitation of eligible HQLA in the Australian jurisdiction to Australian state and federal government bonds exacerbates the demand for Australian government securities, noting Australia's relatively low level of government indebtedness (see Figure 7).

Figure 7: Gross Government Dept as Percentage of GDP (2012)[12]

Australia	29.3
Canada	85.8
France	105.1
Germany	87.6
Greece	181.3
Ireland	123.2
Italy	127.0
Japan	214.3
Korea	36.4
New Zealand	51.3
Spain	93.8
Switzerland	39.5
United Kingdom	105.3
United States	109.8
Euro area (15 countries)	100.6

Compounding this, Australian government debt has been increasingly held by offshore investors, particularly as those investors find a diminishing range of securities available to satisfy AAA mandates, instead being attracted to highly-rated AUD securities and diversification of reserves away from USD securities and other less well rated government counterparties (see Figure 8).

Figure 8: Ownership of Australian Commonwealth and State Governments' Securities[13]



[12] Source: OECD
[13] Sources: RBA, ABS, Bloomberg

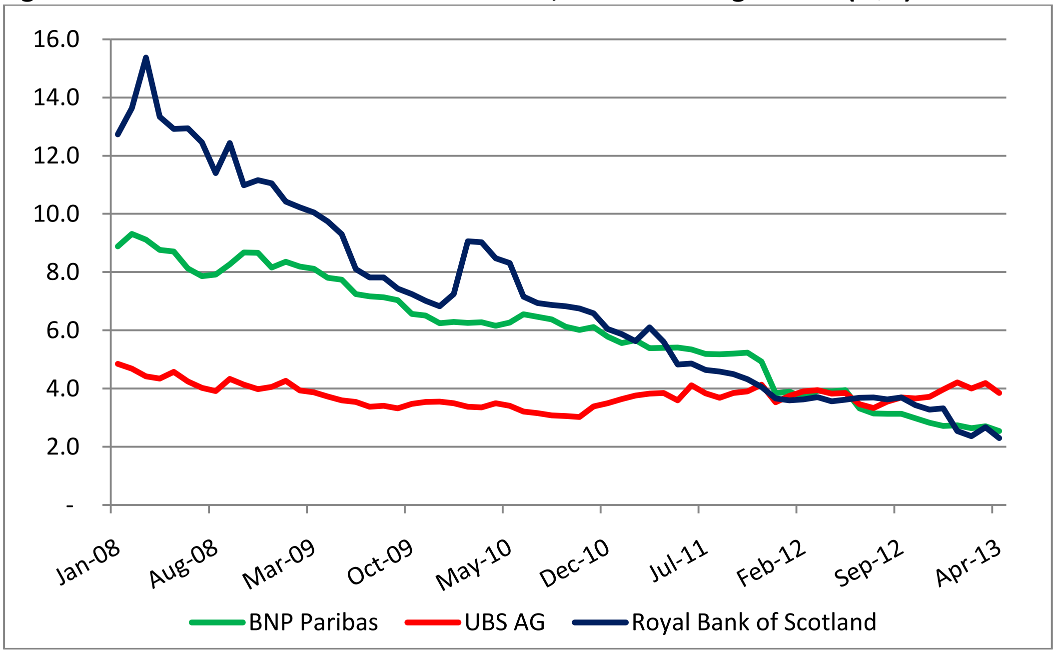
With the relative scarcity of Australian government bonds available, the embedded demand for banks should help to reinforce demand, even if offshore conditions change in the future. It also creates another set of challenges for other investors, who increasingly find themselves being 'crowded out' of government securities by banks and offshore investors. This may add to the demand for other fixed income securities that funds may choose to hold in their liquidity portfolios.

Debt Markets
Basel 3 may also serve to provide a welcome stimulus for the still-fledgling Australian corporate bond market.

The first element driving this relates to banks repositioning their funding profiles, with less emphasis on the historical tendency of 'maturity transformation' (borrowing shorter-dated funding and providing longer-term lending to corporate borrowers) and more towards a more 'matched funded' position. With corporates often seeking longer-tenor funding (to manage re-finance risk and satisfy ratings expectations), there is added impetus for banks to arrange their corporate clients' term funding via debt capital markets, rather than by deploying their own balance sheets, and banks have actively invested in their debt capital markets capabilities as a result.

Compounding the funding challenges that face Australian banks, a number of international banks also need to raise considerable amounts of additional capital – a Basel Committee survey of 102 internationally-active banks found that they will need an aggregate of an additional €374b in Core Equity and €219b in other Tier 1 Capital (ie. a total of €593b in new Tier 1 Capital).[14] This is a significant hurdle, adding a sense of 'capital scarcity' for some banks, and we have already seen some major European banks reduce their balance sheet participations in Australian lending (see Figure 9). Some US banks may also face similar pressure from Dodd Frank's Collins Amendment.

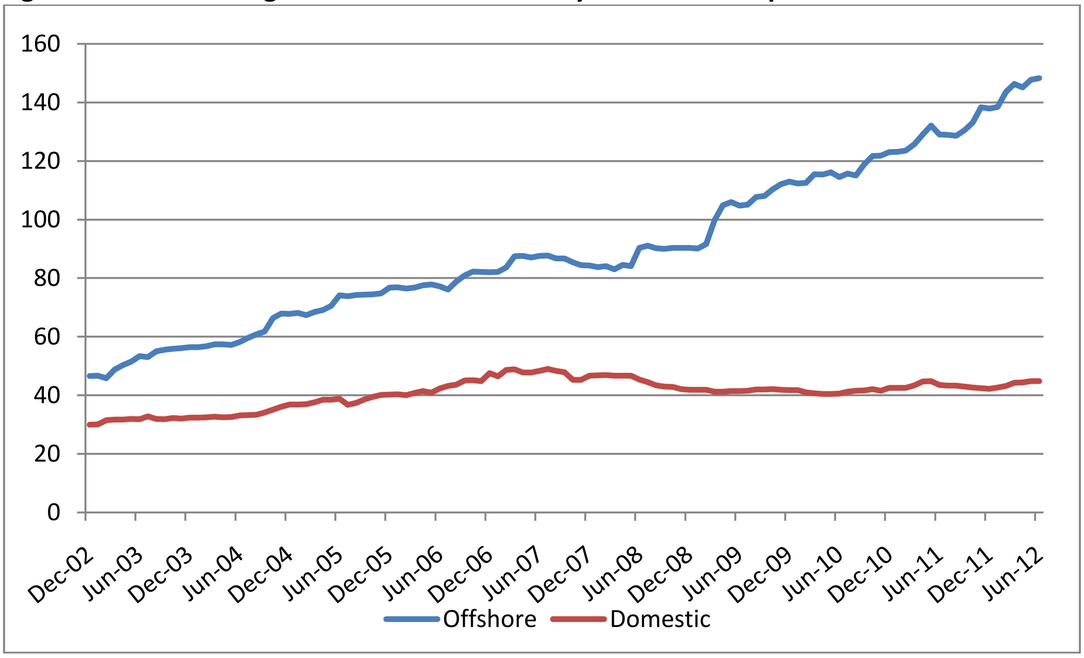
Figure 9: Gross Loans & Advances in Australia, selected foreign banks (A$b)[15]



[14] BIS Basel Committee on Banking Supervision, Results of the Basel 3 Monitoring Exercise as of 31 December 2011, published September 2012
[15] Source: APRA Monthly Banking Statistics

Notably, the market traction to date has largely been via corporate issuance into offshore markets where there are deeper investor pools and greater liquidity. Over the last decade, offshore issuance by Australian corporate has tripled – while domestic corporate bond activity has remained constant (see Figure 10).

Figure 10: Outstanding Debt Securities Issued by Australian Corporates



However, the Basel 3 impacts for derivatives (specifically the added cost impacts for long-dated cross currency swaps) may serve to stimulate greater activity within the Australian market. Assuming these regulations increase the cost for Australian borrowers seeking to convert USD or EUR borrowings into AUD, the current funding cost advantage experienced by domestic Australian borrowers in offshore markets may be reduced, making it more attractive to issue debt domestically.

Clearly, there are a number of reasons why the domestic bond market has been slow to develop – not only the availability of cheaper and easier bank debt for corporates, but also the tax treatment compared to equities, the, market depth and liquidity, and institutional and retail investor appetite. Whilst the imperatives from Basel 3 and tighter management of banks' liquidity risk don't necessarily overcome all of these issues, it does add support to the development of a domestic bond market, at a faster rate than would otherwise be the case.

Similarly for infrastructure, these trends make bank funding more challenging. It may emerge that banks will increasingly look to provide bridge-funding through the construction phase, with greater opportunities for other investors in the operational phase.

Key Considerations for Superannuation Funds

These market implications present both potential challenges and opportunities for Superannuation Funds. The web of regulatory changes brings an added layer of investment complexity and new considerations, particularly when overlaid against the backdrop of other significant underlying market trends, such as risk-averse investors switching to cash in the wake of the GFC, low interest rates prevailing in much of the world, the superannuation sector's increasing FUM here in Australia, and sovereign downgrades in Europe that leave less eligible securities available to satisfy AAA mandates.

Most immediately in the Australian market, the different deposit rates that retail investors (including SMSFs) are able to earn compared to the returns on cash within an institutional superannuation fund, results in a heightened focus on member engagement and retention strategies, and to matching the options and returns that SMSFs can offer. For institutional investment cash holdings, optimising efficiency means investing for longer tenors (ideally for terms greater than a year, but at least to get comfortably beyond the 30-day LCR window), which adds increased emphasis on liquidity management and forecasting.

Funds may need to review their investments in government and semi-government bonds, as well as securities that are classed as repo-eligible for banks providing collateral for RBA liquidity support. The heightened demand for some securities may prompt a re-assessment of liquidity policies, whilst there are also broader market impacts for offshore liquid assets, as some national regulators tweak their own definitions of eligible HQLA for banks in their own markets.

The impacts for derivatives (and hedging costs) make it pertinent for superannuation funds to revisit their existing currency and interest rate risk management policies. Superannuation funds may need to review internal policies to consider the impacts of entering into a collateral agreement, as well as monitoring the trends towards use of Central Counterparties for executing derivatives trades.

Superannuation funds also need to prepare for how they will assess new investment opportunities and products as they emerge. As banks increasingly look to partner with superannuation funds in order to meet the funding needs of their corporate and infrastructure clients, this may require a revision of asset allocation approaches, and new capabilities for assessing potential investments in corporate debt-related products.

The twin impacts in both (i) the expanded range of domestic fixed income opportunities, and (ii) the costs associated with using derivative to hedge risks, become amplified when considered in the context of the overall growth of the superannuation sector. With the system-wide growth of FUM forecast in the coming decade, superannuation funds will need to find broader classes of assets to invest in, in many cases prompting greater examination of fixed income and of offshore opportunities. The second order impacts of banking regulation becomes another dimension to that examination.