

## Guy Debelle: Collateral, funding and liquidity

Address by Mr Guy Debelle, Assistant Governor (Financial Markets) of the Reserve Bank of Australia, at the Conference on Systemic Risk, Basel III, Financial Stability and Regulation, Sydney, 28 June 2011.

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Today I am going to talk about a few interrelated issues concerning the banking system: collateral, funding and liquidity.

The financial crisis brought into sharp relief the liabilities side of a financial institution's balance sheet, that is, the funding structure. This had previously been somewhat neglected, but the fates of Northern Rock, Bear and Lehmans were clearly affected by the nature of their funding. While their funding structure played a significant part in the downfall of those institutions, I would argue the ultimate concern was about the quality of their assets. The funding problems were symptomatic of concerns about asset quality.

In my view, the pendulum has swung too far in focusing on liabilities. Such a swing is evident in the proposed change to Standard & Poor's ratings methodology for the global banking system. The proposed new methodology shifts the assessment of financial strength of an institution markedly towards funding and away from asset quality. Asset quality should still be paramount and should be given a far larger weight than liabilities in assessing financial strength, along with the extent of leverage (capital).

The solvency of any bank first and foremost is a function of the quality and value of its assets. This is, of course, true of any entity, but it is particularly true for banks because of the implications asset quality has for liquidity and because of the leveraged nature of financial institutions.

The crux of my argument today is this: if I am a creditor of a bank, my due diligence should be spent mostly on assessing the asset side of the bank's balance sheet in determining whether or not I will get repaid in full. If asset quality remains high, I should be confident of being repaid.

Financial institutions prior to the crisis had been in what might be described as an asset-driven world. Banks grew their asset portfolio on the assumption (which was generally realised) that the funding required would be easily forthcoming to support the asset growth. To paraphrase *Field of Dreams*, the financial environment was 'if you lend it, they will fund'.

That environment has been turned on its head by the financial crisis. Financial institutions are now in a funding-driven world. They can no longer assume that the funding will be readily forthcoming at a given price. We are now much more in a liability-driven world.

So the structure and maturity profile of liabilities does bear close analysis. Because banks are in the business of maturity transformation, liabilities mature at a faster pace than assets. Assets can be difficult to liquefy in the market, particularly in stressed circumstances. As a result, a bank generally meets the need to repay its liabilities as they fall due by issuing more debt.

But the bank's ability to refinance its maturing liabilities still fundamentally depends on the asset portfolio. An investor's decision as to whether it will be willing to lend to the institution will be based on its credit assessment of the institution's assets. If there are doubts about the quality of that asset portfolio, a bank will find it considerably more difficult to obtain more funding.

## Liquidity<sup>1</sup>

I will now focus more directly on the important relationship between asset quality and liquidity.

If a bank is experiencing a problem of illiquidity, the state of its asset portfolio is even more paramount. This relates to one of the fundamental tenets of central banking, most famously associated with Walter Bagehot. Writing in *Lombard Street* in 1873, Bagehot states that central banks should lend freely (ie, liberally) at a high rate to solvent but illiquid banks that have good collateral.

There are a number of important elements to Bagehot's statement which I am going to discuss in some detail.

Starting at the end of the statement, and germane to the argument thus far, is that the bank must have good collateral. Therefore, critically, it is the asset side of the balance sheet which enables the bank to overcome a problem on the liabilities side: the central bank must be sure that it is lending against good collateral.

The second aspect of the statement which bears further discussion is that the central bank should lend to solvent but illiquid banks. I don't see this as being materially separable from the collateral issue. As I have argued above, a bank's solvency is most strongly influenced by the quality of its collateral. Capital and leverage play an important role too.

It is sometimes said that it might be difficult to determine whether the issue really is one of solvency rather than one of liquidity. Clearly, the fact that a liquidity issue has risen may well be a signal that the market has concerns about solvency. Hence the central bank certainly should pay heed to that signal from the market.

But the experience of the past few years demonstrates liquidity crises can arise because of uncertainties that can be exacerbated by funding structures which are heavily skewed to the short term. In keeping with my argument thus far, in my opinion, it behoves the central bank to look through those uncertainties to the underlying asset quality of the institution under question, and be prepared to lend secured against quality assets if the situation warrants.

This is particularly true when there is systemic uncertainty. That is, counterparty risk aversion increases. Such instances have arisen on a number of occasions in recent years. As I have said before, in those circumstances, the central bank acts not so much as lender of last resort, but as intermediary of last resort.<sup>2</sup> Participants in the market are uneasy about lending to each other at any price, secured or unsecured, because of concerns about the solvency of the counterparty. The central bank can refrain from participating in the risk aversion and intermediate this process across its own balance sheet, thereby ameliorating the tensions created by the shortage of liquidity in the market.

Together with the provision of liquidity, there may also be a need for the central bank, or prudential regulator, to provide information about the quality of banks' balance sheets to reduce the uncertainties that pervade. One could characterise the stress tests conducted in the US in the middle of 2009 as an example of this. Moreover, by providing the liquidity (against collateral), the central bank is indicating its confidence in the solvency of the institutions that can be reinforced by this provision of information.

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<sup>1</sup> These issues are also covered in Stevens G (2008), "Liquidity and the Lender of Last Resort", Seventh Annual Sir Leslie Melville Lecture, RBA Bulletin, May, pp 83–91.

<sup>2</sup> Debelle G (2009), "Some Effects of the Global Financial Crisis on Australian Financial Markets", Finance Professionals Forum, Sydney, 31 March.

The final aspect of Bagehot's statement is that the lending should be at a high rate.<sup>3</sup> But a higher rate than what? A relevant benchmark is the rate at which the central bank provides liquidity in its normal operations. In the Reserve Bank's case, that is a rate which is a small spread (normally less than 10 basis points) to the cash rate. Emergency liquidity provision would clearly need to be a higher rate than this, otherwise institutions would avail themselves of this source of liquidity even in normal times. That is, the central bank should be a last resort, not a first resort.

Within the Reserve Bank's operating framework, a reasonable benchmark would be the rate charged on the standing overnight facility, which is 25 basis points above the cash rate.<sup>4</sup> This facility is called upon at various times throughout the year, generally as a result of small unexpected technical hitches in the money market.<sup>5</sup> For example, over the past financial year, it was utilised on two occasions, with a total of \$363 million drawn, and for a term of no more than one day.

But in a stressed situation, that rate is still likely to be less than the market rate, as otherwise there would be no need for recourse to the central bank. Thus the rate is penal relative to the normal cost of liquidity provision but not necessarily relative to the stressed market price of funding, a distinction which is often overlooked in such discussions.

It is also worth noting that the central bank can apply a haircut to the value of the collateral it is lending against. That is, it will not lend dollar for dollar against the collateral but rather against some (generally large) fraction of its value. This provides protection to the central bank. Of course, the issue of value can be difficult to determine in stressed situations. The current market price may well not be an adequate guide to the value of the collateral. But the central bank can ensure adequate protection for its liquidity provision by setting an appropriately sized haircut. That said, if the central bank assesses that there is indeed little concern about the quality of the collateral, this should not be too much of an issue.

The final issue that often arises about the provision of liquidity support by the central bank is that of stigma. During the crisis, in some jurisdictions, banks were clearly loath to approach the central bank because of concerns about stigma. That is, the call on the central bank's liquidity facility, in and of itself, would exacerbate the stresses the institution was facing.

In Australia, this has been much less of an issue. In part, I believe this reflects the design of the Reserve Bank's market operations system. The key aspect is that a wide range of counterparties deal with the Reserve Bank on a regular basis as part of our daily liquidity operations. Hence banks are accustomed to dealing with us and have a well-established relationship with us.

To recap, there is an important role for a central bank to play in a fractional reserve banking system as the lender of last resort. This is particularly the case in dealing with liquidity events where the central bank's provision of liquidity can be regarded as a public good.<sup>6</sup> As noted, the central bank does not provide the liquidity insurance for free; it is at a penal rate. Moreover, the institution must hold an adequate amount of collateral that is of acceptable quality to the central bank to lend against. Such collateral may well deliver a lower rate of

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<sup>3</sup> See again the Governor's Melville Lecture as well as Charles Goodhart in "Myths about the Lender of Last Resort", in C Goodhart and G Illing (eds) (2002), *Financial Crises, Contagion, and the Lender of Last Resort: A Reader*, Oxford University Press, Oxford, pp 227–248.

<sup>4</sup> To be clear, I am not talking about the proposed liquidity facility that will form part of the Australian approach to the Basel liquidity rules discussed below.

<sup>5</sup> RBA (Reserve Bank of Australia) (2010), *Annual Report 2010*.

<sup>6</sup> See Kearns J and P Lowe (2008), "Promoting Liquidity: Why and How?", in P Bloxham and C Kent (eds), *Lessons from the Financial Turmoil of 2007 and 2008*, Proceedings of a Conference, Reserve Bank of Australia, Sydney.

return than other assets the bank might otherwise hold (although not necessarily so on an appropriately risk-adjusted measure).

In that regard, I will now turn briefly to the Basel liquidity standards. The aim of those standards is to reduce the frequency with which banks might need to seek assistance from the central bank in a liquidity event to a very small number. It does so by making the size of the liquidity buffer banks are required to hold dependent on the structure and maturity of funding. Thus, while the central bank can ultimately liquefy part of the balance sheet of a solvent institution in times of liquidity stress, in expectation, this would be a rare event. An institution should not be careless about its funding structure on the presumption of that support.

Relevant to the arguments I have presented thus far, the Basel standards also make determinations around the quality of assets that can be held. The Basel guidelines focus primarily on government debt as the liquid asset. That is clearly not possible in Australia, given the prudence of governments over a long run of years. The amount of government debt that the Australian banking system would need to hold to meet the liquidity standard is in excess of the stock on issue. Moreover, if the banks were to hold the stock on issue, the government bond market would no longer retain any liquidity, which would be completely self-defeating.

Hence it was announced late last year that the RBA would provide a committed liquidity facility to meet the shortfall between banks' holdings of government paper and their total liquidity needs. The banks will be charged an ongoing fee to be able to access the facility, the size of which is still under consideration. The eligible assets for the facility are those currently eligible for the Reserve Bank's market operations.

### **Funding and assets of the Australian banking system**

Having talked thus far about the fundamental importance of collateral quality in determining solvency and in determining liquidity provision, I will now spend the remainder of my address talking briefly about recent developments in the asset and liability structure of the Australian banking system.

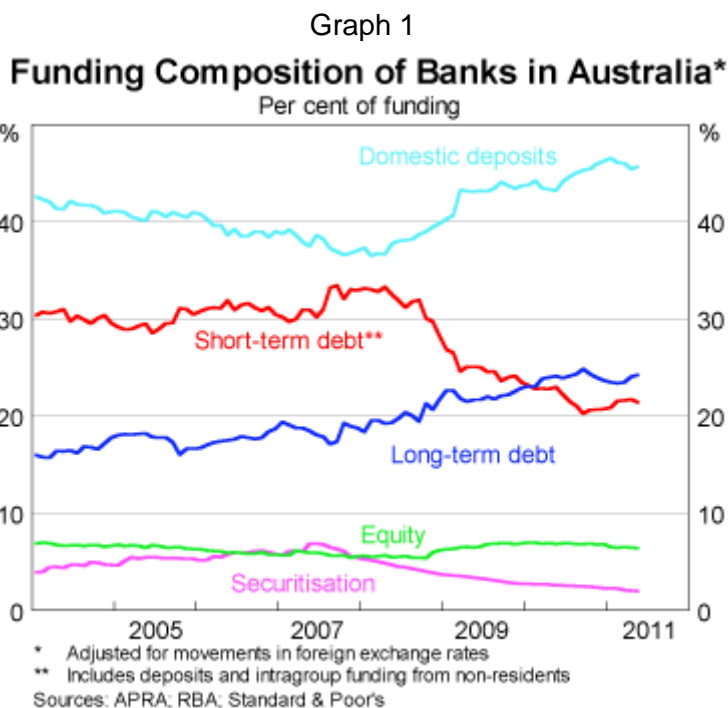
On the asset side, the most marked development has been the slowing in aggregate credit growth. Lending for housing has slowed from the double digit pace of the two decades until 2007 to its current pace of around 5–6 per cent. This is noticeably slower than growth in household income, which was over 8 per cent in the year to March. For those who like to agonise about debt to income ratios, which I personally don't, this implies a marked change in that dynamic.

On the corporate side of banks' assets, growth has been very subdued reflecting a number of different dynamics. The large investment boom currently underway is being financed in quite a different way from growth episodes in the past. Companies in that sector are funding themselves from cash or directly from global financial markets. Hence the domestic banking system is seeing much less of that business than in the past. To put it another way, intermediated business credit is likely to grow a lot slower in the period ahead than historical relationships with GDP and investment would lead one to believe. Finally, lending conditions to the commercial property sector remain tight as banks are still reluctant to increase their exposure to that sector.

The changes in funding structure of the banking system are also quite stark (Graph 1). Most notably, there has been a marked increase in the share of deposit funding. Over the past three years, banks' deposit funding has grown by about 15 per cent per annum. As a result, deposits have also increased by about 9 percentage points as a share of overall funding liabilities. There has been strong growth in deposit growth from households as well as businesses. The former reflects the increased saving rate of the household sector, much of which has flowed to the banking sector. The latter partly reflects the strong growth in

corporate profits, particularly in the resources sector.<sup>7</sup> While growth in business deposits has been considerably faster over the past 12 months, household deposit growth has still been a very robust 9 per cent.

Through late 2009 and early 2010, the strength of growth in deposits reflected, in part, the intense competition amongst the banks for deposits.<sup>8</sup> This saw the yield on deposits rise markedly as the Reserve Bank has documented in its regular output over the past few years. But that competition appears to have levelled off in recent months, yet deposit growth has still continued at a robust pace. I would characterise the recent growth as being more an endogenous counterpart to the change in the growth and funding composition of the economy as a whole. One might expect that robust endogenous deposit growth to continue for some time yet.



There has also been a significant drop in the share of short-term wholesale funding, reflecting regulatory and market pressures. The share of long-term wholesale funding has correspondingly risen, as banks have sought to term out the maturity of their liabilities. One noteworthy development that has generally escaped attention is that banks have raised less of this wholesale funding from offshore than has matured over the three of the past four quarters. That is, in net terms, the banks have been repaying their foreign liabilities.

The Australian banks' use of offshore funding sources was particularly visible through 2009. They were a relatively large share of global bank debt-funding in that year, but that as much reflected the decrease in the number of highly rated institutions, as well as a lack of borrowing by other banks around the world through that period, as it did a pick-up in borrowing by the Australian banks. (That is, it was as much a function of the denominator shrinking as the numerator growing.) The Australian banks are a much smaller share of the

<sup>7</sup> Debelle G (2011), "The Australian Bond Market in 2011 and Beyond", KangaNews Australian DCM Summit, Sydney, 15 March.

<sup>8</sup> Fabbro D and M Hack (2011), "The Effects of Funding Costs and Risk on Banks' Lending Rates", *RBA Bulletin*, March, pp 35–41.

global market again now given they are raising relatively less and banks in the rest of the world are raising relatively more. This is likely to remain the case for the foreseeable future.

Finally, to link back to the arguments I made earlier, I will talk briefly about concerns surrounding the extent to which Australian banks rely on foreign funding. If a liquidity issue were to arise around this funding, it is of critical importance that the foreign-currency denominated funding is fully hedged into Australian dollars, which indeed it is.<sup>9</sup> This means that the liquidity issue is in Australian dollars rather than in foreign currency.<sup>10</sup> As I discussed earlier, an Australian dollar liquidity issue can be addressed by the Reserve Bank. The Reserve Bank can meet a temporary liquidity shortfall by lending Australian dollars against the stressed bank's assets denominated in Australian dollars. The vast bulk of the Australian banking system's assets are denominated in Australian dollars.

This stands in comparison to the situation of a number of European banks that funded US dollar assets with US dollar liabilities which had been swapped out of their local currency. When liquidity issues arose for those European banks, the ECB was constrained in its ability to provide the foreign currency liquidity to address those stresses.<sup>11</sup>

## Conclusion

The main argument I have presented here today is that it is the asset quality of a bank which is the primary determinant of a bank's financial strength. The asset quality affects both the ability of the bank to raise funding in the market and also, importantly, has a first-order effect on the ability of the institution to obtain liquidity support from the central bank during a stressed situation. While the funding structure of a financial institution warrants close scrutiny, an investor in that institution should pay the greatest scrutiny to the asset side of the balance sheet.

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<sup>9</sup> D'Arcy P, M Shah Idil and T Davis (2009), "Foreign Currency Exposure and Hedging in Australia", *RBA Bulletin*, December, pp 1–10.

<sup>10</sup> That said, as well as matching the currency, the hedging is generally also maturity matched.

<sup>11</sup> For more discussion of this issue, see CGFS (Committee on the Global Financial System) (2010), "The Functioning and Resilience of Cross-border Funding Markets", CGFS Paper No 37.