BANK LENDING RATES AND LINKAGES TO THE CASH INTEREST RATE

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Public information

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When the Reserve Bank of Australian (RBA) lowers the cash interest rate, why don't the banks always lower their mortgage rates and other loan rates by the same amount? The short answer is that banks do respond to changes in the cash interest rate, and have sometimes reflected such changes exactly. However, if bank funding costs do not fall by the same amount as the cash interest rate, the banks may not lower their lending rates by as much either. The cash interest rate is not the only thing that banks need to consider when setting lending rates.

The cash interest rate and banks' cost of funds

The cash interest rate is the rate banks pay one another for overnight loans of cash. Even though it's a market rate, the cash interest rate can be set by the RBA because they control the overall supply of funds in this market. That is, the RBA can provide (or withhold) as much cash as it likes to the banking system and so effectively sets the cash interest rate.

The RBA does this to influence the level of interest rates charged by banks and other lenders. When the RBA lowers the cash interest rate, it wants banks and other lenders to lower their loan rates too, so that credit is cheaper in the economy, people borrow more money and economic activity is stimulated.

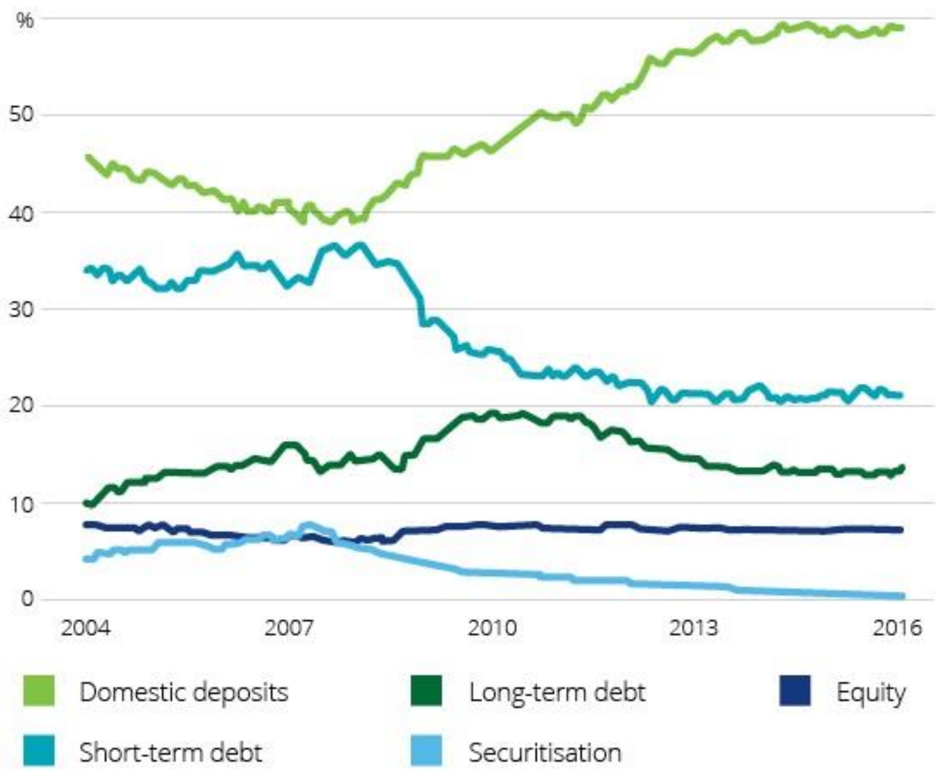
But the linkage between the cash interest rate and the interest rates banks charge on their loans is not mechanical. The primary influence on banks' loan rates is the price they have to pay to get money (or funds) to lend. This price is known as a bank's cost of funds. The cash interest rate, while important, is only one component of a bank's cost of funds.

Importantly, banks don't fund their loan books by borrowing each night at the cash interest rate. In fact, a negligible portion of their balance sheet is funded this way. Instead banks fund their loans with different types of borrowings, generally for periods much longer than overnight.

Deposits

More of these borrowings are now sourced from domestic depositors than in the past (see Chart 1). These depositors lend their money to banks either "on demand" (where the bank promises to repay the money whenever the depositor asks for it back) or "at term" (where the bank promises to repay the money after a fixed period of time).

Chart 1: Composition of Bank Funding1,2



Source: APRA; RBA; Standard & Poor's

The interest rates banks pay depositors to borrow their money are not set by the RBA but determined by the banks themselves in competition with one another. A bank that wants to attract more deposits or keep those it has already must offer high enough interest rates to discourage depositors from taking their money elsewhere.

Wholesale borrowing

Apart from deposits, banks also borrow from wholesale investors; these are typically large fund managers, corporations, and other investors. They do this by selling securities (bonds and other financial instruments) to wholesale investors on specialised financial markets located in Australia and overseas. This is also called issuing bank debt. Banks use the proceeds of these security sales to fund loans.

Debt provided to banks for longer periods of time is more expensive, so banks typically use more short-term debt, although its use has declined significantly in recent years (Chart 1). Short-term debt is due within 12 months, while long-term debt comes due in periods greater than 12 months.

Just like deposits, interest rates on wholesale borrowing are not set by the RBA but are determined in securities markets. These markets have many buyers and sellers, not just banks. These buyers and sellers interact to determine the interest rates that borrowers must pay lenders.

[1] Adjusted for movements in foreign exchange rates; tenor of debt is estimated on a residual maturity basis.
[2] Short-term debt includes deposits and intragroup funding from non-residents.

Average cost of funds

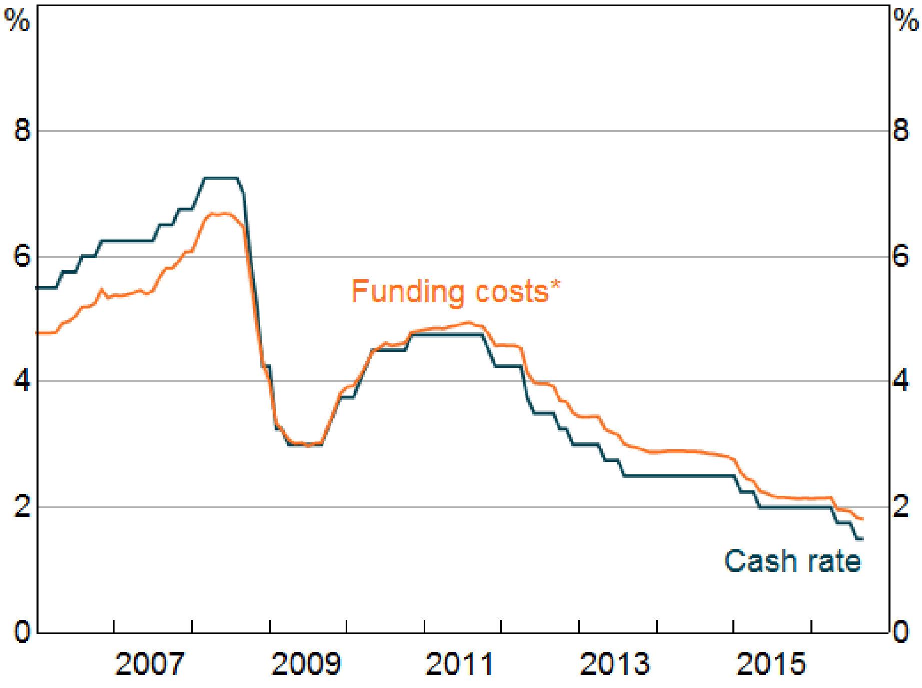
While the level of the cash interest rate can and does affect interest rates banks pay on deposits and wholesale borrowings, the effect is indirect and takes time to work through the system – it is not mechanical.

Looking at everything together, a bank's average cost of funds depends on how much of each type of borrowing it uses. The impact of a change in the cash interest rate on the average cost of funds will depend on how much each type of borrowing is affected by the change in the cash interest rate, and how much of each type of borrowing is used by the bank.

Some of these rates might change straight away but, even if they do, they might not change by as much as the cash interest rate. Other rates might not change at all or not until well after the cash interest rate changes. And some rates, especially in wholesale markets, might be influenced by developments outside Australia that completely swamp the change in the RBA's cash interest rate so that the effect on banks' average cost of funds looks like the opposite of what might be expected.

All things considered, there is no strict mechanical linkage between the RBA's decision to change the cash interest rate and the impact on the banks' average cost of funds. There are other factors at work and some of them have nothing to do with the RBA's cash interest rate decisions. This has meant that banks' funding costs have not always moved one-for-one with the cash interest rate (Chart 2).

Chart 2: Cash interest rate and major banks' funding costs



* RBA estimate

Sources: APRA; Bloomberg; Financial Reports; RBA; UBS AG, Australia Branch

Source: RBA[3]

[3] RBA 2016, *Major Bank Funding Developments*, Handout Prepared for House of Representatives Standing Committee on Economics, Canberra, 22 September, <http://www.rba.gov.au/publications/submissions/bank-fees-and-margins/handout-standing-committee-on-economics-2016-09-22/>

Net interest margins and bank profitability

Even if the banks' average cost of funds doesn't fall by as much as the cash interest rate, why can't the banks "do the right thing" and lower their loan rates by the full amount anyway?

Lowering loan rates by more than the fall in the average cost of funds can lower a bank's net interest margin. This is the difference between the income it receives on assets (such as loans) and the interest it pays on its funding, expressed as a percentage of its interest-earning assets. Net interest margins along with fees are the main source of bank profits. In the absence of any other changes, lowering net interest margins generally lowers bank profits.

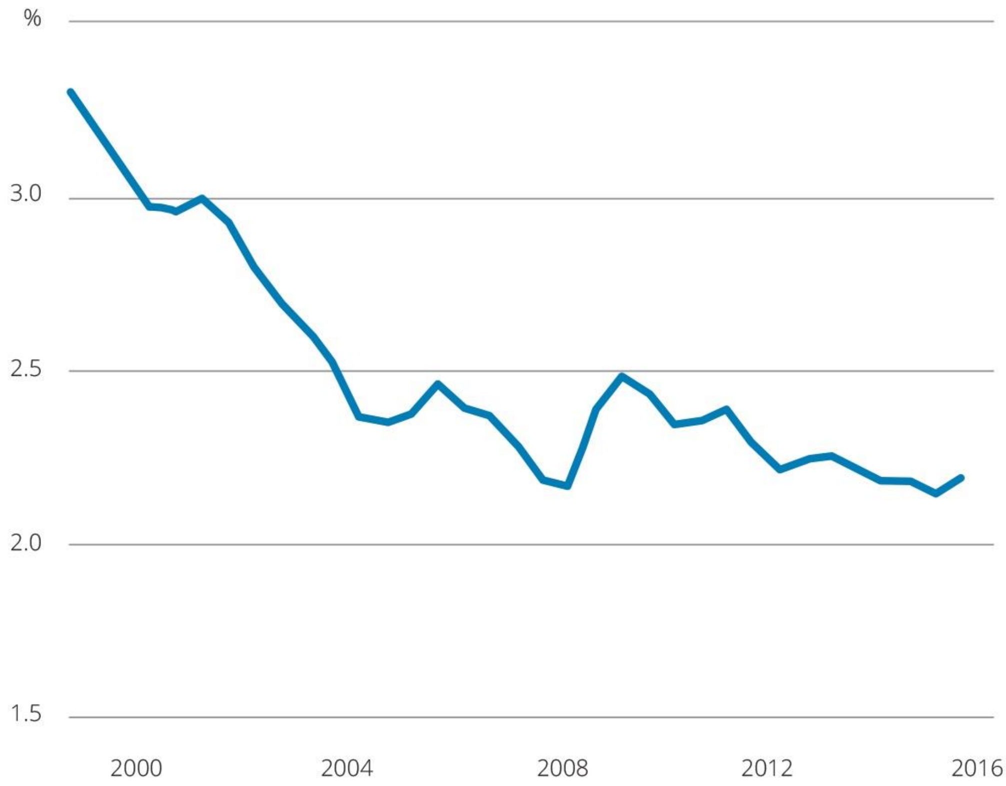
Lowering bank profits affects bank shareholders; they would receive lower returns on their investment. The people affected by this may hold shares in banks either directly or through their superannuation funds. So when banks think about changes in their net interest margins, they also consider the reaction from the share market. Shareholders provide the bank's equity capital.

The Australian Prudential Regulation Authority (APRA), the body responsible for supervising Australia's banks, imposes strict rules on the banks when it comes to equity capital. Banks must keep enough capital to support their lending. If their capital falls, they could find themselves in breach of APRA's rules and the penalties are severe. They would have to find more capital or reduce their lending. Banks prefer not to reduce their lending because that is their business. And if bank lending falls, the economy also is likely to slow down.

Banks' net interest margins have moved around a narrow range over the past decade, but have declined since the late 1990s as competition in banking and financial markets intensified (see Chart 3). Banks, like all the other companies listed on the share market, must compete for shareholders' money, so they are unlikely to give up net interest margin voluntarily.

Moreover, APRA, the bank supervisor, would be concerned if banks were not profitable because of the likely reaction of the share market and the consequences for their prudential soundness.

Chart 3: Net interest margin of Australia's major banks4



Source: Banks' Financial Reports; RBA

In summary

The now Deputy Governor of the RBA summed up the relationship between the cash interest rate and bank lending rates in a speech in 2013:

"So the cash rate has a large influence on lending rates. But there are other factors such as credit risk premia, competitive pressures in the deposit market, as well as changes in the mix of funding banks use which mean that the relationship between the cash rate and lending rates may not always be one for one."[5]

While banks do adjust their lending rates in response to the RBA's cash interest rate decisions, this link is not mechanical – other factors will come into play.

[4] From 2006 data are on an IFRS basis; prior years are on AGAAP basis; excludes St George Bank and Bankwest prior to the first half of 2009.

[5] Debelle, G. 2013, *The Reserve Bank's Operations in Financial Markets*, Address to the University of Adelaide Business School, Adelaide, 23 February, <http://www.rba.gov.au/speeches/2013/sp-ag-260213.html>

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