

Report of the (New Zealand) Parliamentary Inquiry into Banking – a rejoinder and a commentary

**David Tripe
Centre for Banking Studies
Massey University**

Private Bag 11-222
Palmerston North
NEW ZEALAND

E-mail D.W.Tripe@massey.ac.nz
Phone: +64 6 350-5799 ext 2337
Fax: +64 6 350-5651
Mobile: +64 21 675-054

Abstract

In November 2009 3 opposition parties released a report of an inquiry they had conducted into the New Zealand banking sector (Report of the Parliamentary Inquiry into Banking, 2009). This paper is a rejoinder to and a commentary on the material contained in that report, which was generally critical of how the banking sector had responded to the global financial crisis.

Issues reviewed include the apparent expansion of banks' interest margins on lending following the reductions in the OCR, competition in the New Zealand banking sector and some of the issues around the effectiveness of the OCR as a policy tool to be used by the Reserve Bank of New Zealand.

The key outcome from the paper is a specification of issues in relation to the New Zealand banking sector where further research is warranted.

Introduction

Banks have been very much at the centre of concerns over global financial stability since 2007, and the role of banks in New Zealand is of no less importance. Banks in New Zealand are of particular importance in any case because of the dominant role they play in the New Zealand market for financial intermediation,¹ but another special feature of the New Zealand market is the dominance of foreign-owned banks.

In response to the global financial crisis, the Reserve Bank of New Zealand reduced its official cash rate (OCR) by a very large amount and very quickly during the latter part of 2008 and early 2009, with the OCR falling from 8.25% to 2.5%. Concerns were raised at Parliament's Finance and Expenditure (select) Committee that the full amount of the decrease in the OCR was not being passed through to borrowers, and that there were significant delays in lending rates (in particular) being reduced, which led to suggestions for a select committee inquiry. In the end, the government members of the committee would not support such an inquiry, and the inquiry ended up being convened by the opposition parties only.

Submissions were called for, and a number were received, although none of these were from any of the major banks, the New Zealand Bankers Association as a representative body, or the Reserve Bank of New Zealand. Some submissions were heard in person, while the Inquiry also made use of written material and Reserve Bank statistical data that was provided to it. The analysis of this was assisted by some staff and advisers, and by a couple of reputable peer reviewers. This paper is a rejoinder to and commentary on the Inquiry's Report (listed in the references according to its title as the Report of the Parliamentary Inquiry into Banking).

The Inquiry's major concern was with the pass-through of the reductions in the OCR to short-term variable borrowing rates, but they also identified a number of other relevant issues, including the relevance of the OCR for influencing economic activity and financial market pricing, bank lending margins more broadly, bank profitability, bad debt provisioning by the banks, lending terms and practices. In its findings the Inquiry noted other concerns, including an alleged bias in the tax system in favour of property purchase and against the production of goods and services and that there was insufficient information on the use of home mortgages to finance small business. They also noted that, if Kiwibank was to become a stronger competitor against the existing major banks, it would need more capital.

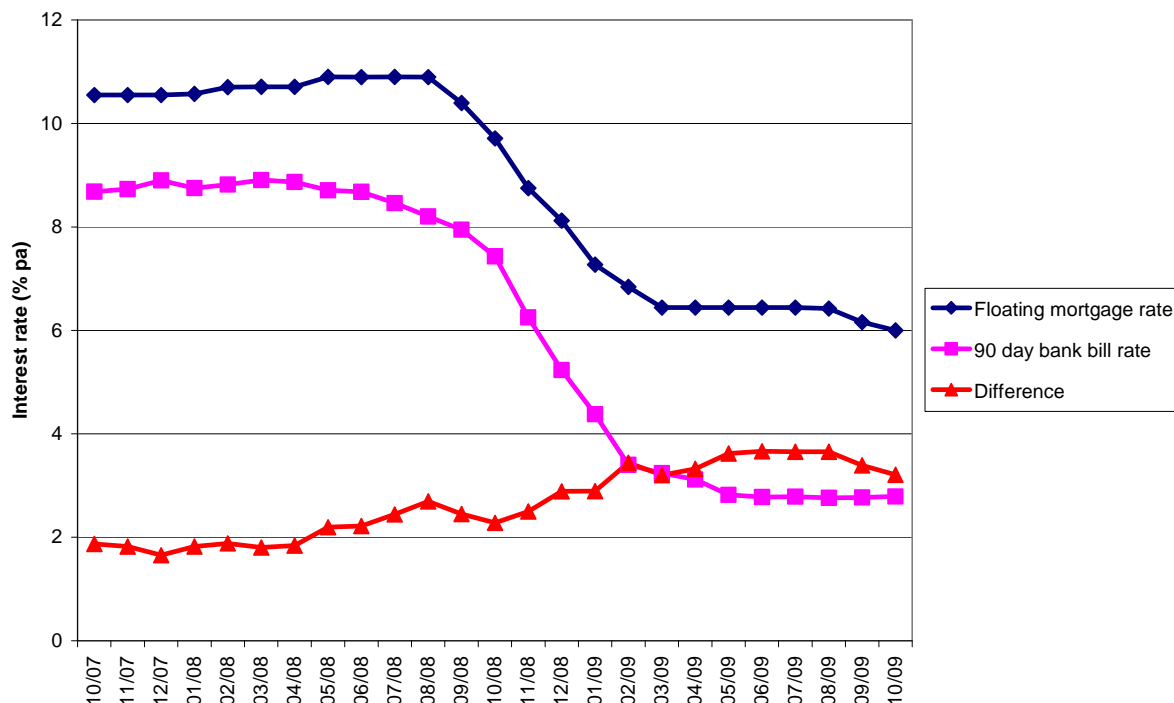
¹ The banks accounted for 80.9% of financial system assets as at 30 June 2009, up from 68.2% in 1995, according to Tables A1 and A2 of Reserve Bank of New Zealand (2009, November).

The major focus of this paper is on the argument over interest margins, but they relate to other issues that were considered by the Inquiry, such as the extent of competition in the New Zealand banking sector. My comments on the committee’s findings will not be wholly negative, as there are a few areas where I concur with suggestions and recommendations that they have made, such as in their proposal for further information to be collected on the composition of banks’ housing loan portfolios. There are other areas too where we lack sufficient information to properly assess the performance of the banks, and the concluding section of paper will thus set out something of a future research agenda on New Zealand banking.

Interest margins

If you choose the right numbers to look at, it is very easy to demonstrate that there could be a problem with banks’ interest margins on home mortgage lending. If we compare banks’ floating mortgage rates with the 90-day bank bill rate as a benchmark cost of funds, we see the trend shown in Figure 1, with the margin clearly widening.

Figure 1: Margins on floating mortgage rates²



In practice, however, the story may not be as simple as this graph would suggest. The floating mortgage rate is the standard quoted rate: the rates that banks actually charge will in some cases be

² Data are from the Reserve Bank of New Zealand web-site, Tables B2 and B3.

lower than this, although the effective difference in yield overall is unlikely to be more than 0.2%. A more important point, however, is that although the 90-day bank bill rate has historically been a good indicator of banks' marginal cost of funds, it may not be such an accurate indicator of the cost since the commencement of the global financial crisis. The Reserve Bank of New Zealand has highlighted this effect, with graphs such as Figure 4.10 in Reserve Bank of New Zealand (2009, November) showing that banks' effective cost of funds has increased from 0.10% over the OCR in July 2007 to 1.5% by October 2009. Similar pricing adjustments would be expected to apply relative to the 90-day bank bill rate: if these were applied to the numbers shown in Figure 1 above, the effective margin would be likely to fall back below 2.0% (and would thus be roughly in accordance with the historical average).

There are other challenges with relying on the numbers reported in Figure 1, however, and which impact on the perceptions of bank interest margins. In the first instance, floating rate lending is a relatively small proportion of banks' overall lending: as at 30 September 2009, only 22.9% of banks' home mortgage lending was at floating rates. This means that the margin that banks earn on their floating rate business is relatively less important to banks than what they earn on their fixed rate lending (where margins are generally significantly lower in any case. See, for example, Tripe et al, 2005). Moreover, the average loan size for floating loans was only \$73,540 at the end of September 2009, compared to an average size of \$140,447 for fixed rate loans. This means that, on average, the cost of floating rate loans is less important for consumers than the cost of fixed rate loans, and they will be less impacted by them. The market for floating rate loans is less competitive, and banks do not need to be as aggressive in pricing them.

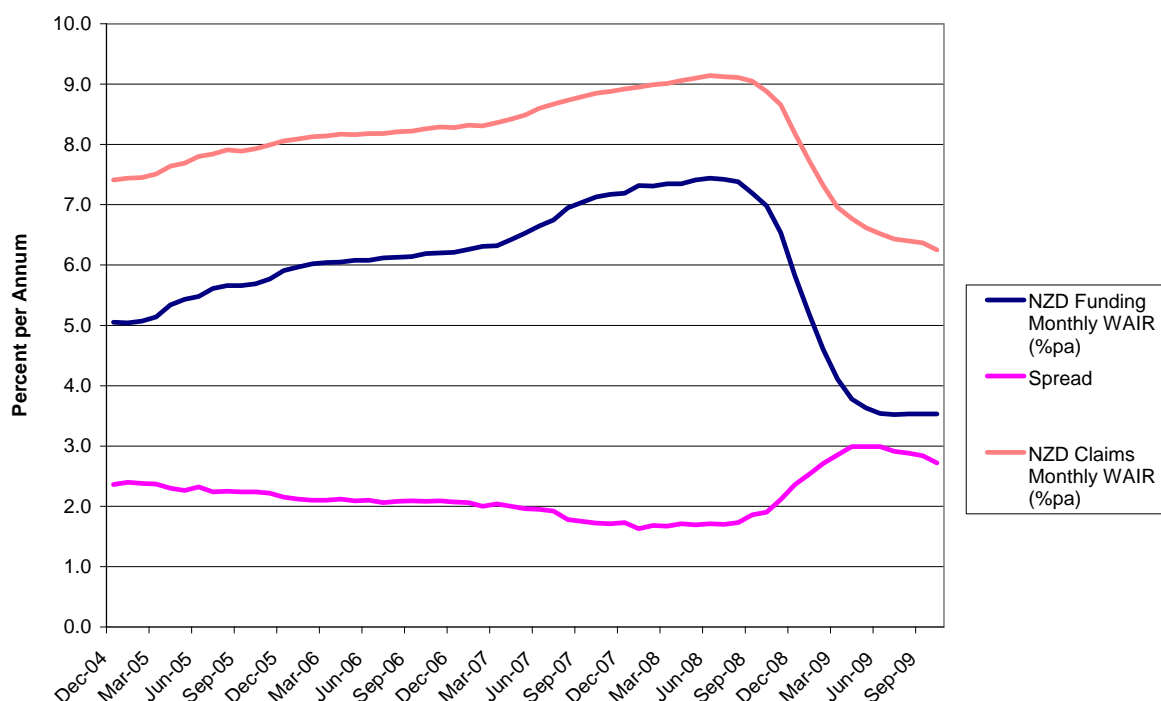
Questions may also be raised in that Figure 1 looks at the 90-day bank bill rate, rather than the OCR (and one of the concerns raised by the inquiry was as to the relevance of the OCR). The first point to note in response to this is that the OCR is an applicable interest rate for only a small proportion of bank funding. The Reserve Bank of New Zealand balance sheet shows New Zealand dollar advances to settlement institutions of slightly in excess of \$7 billion for most of 2009.³ This is funding that will be priced relative to the OCR (at a margin between 0.5 and 1.0%). This might not include all funding that was priced relative to the OCR, however, and one should therefore look further at the decomposition of bank funding (from the Reserve Bank data Table SSR part B1). The total of wholesale call funding (including funds in transaction accounts) plus non-resident call funding, in New Zealand dollars, which is all that one could expect to be priced relative to the OCR, was only

³ According to data Table F2. Note that the figures for advances are considerably higher than in earlier periods because of the liquidity support the Reserve Bank has been providing to the banks. See Nield (2008).

9.04% of New Zealand dollar resident funding at September 2009. The overwhelming majority of funding is for longer maturities, for which the 90-day bill rate is likely to be a much more effective pricing basis (and such wholesale money-market rates are also likely to underpin the pricing of non-resident foreign currency funding). The proportion of funding that is at call can be expected to reduce as the banks respond to the new liquidity requirements that are to come into effect from 1 April 2010.

Rather than looking at the data as per Figure 1, it may therefore be more appropriate to look at the data reported in Reserve Bank of New Zealand data Table HC10, which looks at banks' actual interest costs and revenues and at the spread between them (These numbers are also reported in Tables 4 and 6 of the Inquiry's Report). Monthly data for the period from December 2004 through to September 2009 are shown in Figure 2.

Figure 2: Interest costs and revenues, New Zealand dollar funding and claims.

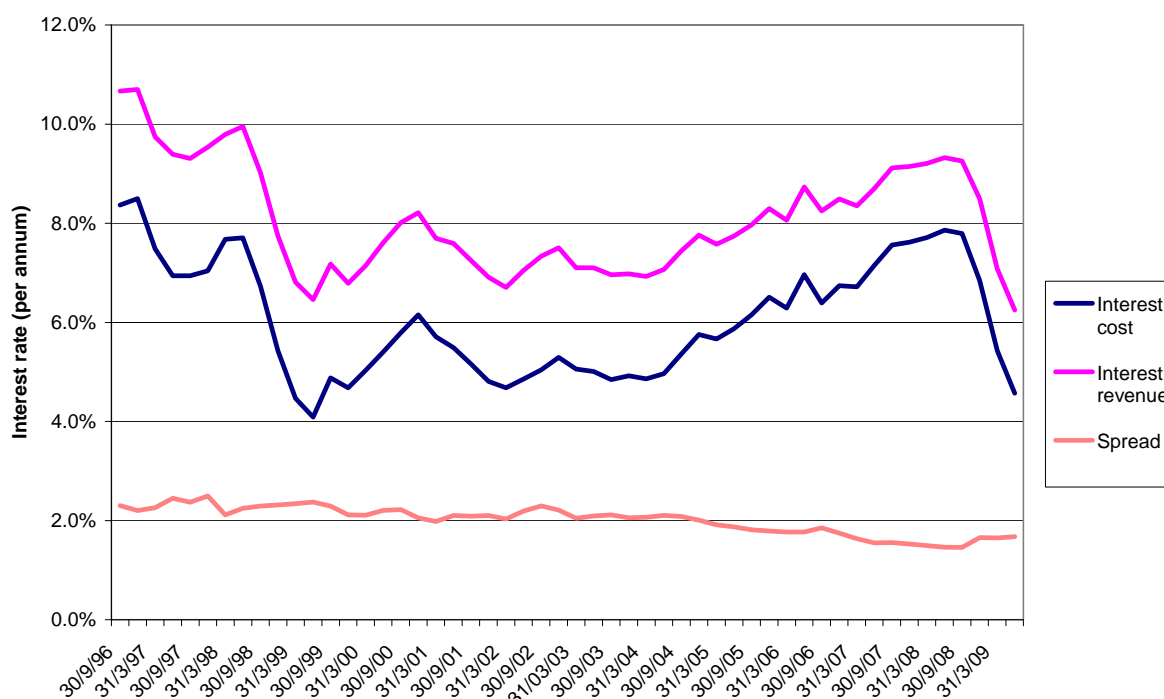


These figures also suggest that spreads have widened, although to a lesser degree that would have been suggested from looking at Figure 1. Once again, however, this data is providing us with a less than complete picture, in that it relates only to the New Zealand dollar funding and claims: as is noted on the Reserve Bank's web-site, the figures exclude foreign currency funding, which accounted for approximately 30% of total registered bank funding at December 2008, and also

exclude the impact of hedging, for example interest rate swap costs incurred against fixed rate claims.⁴

The most reliable basis for assessing what has happened to banks' interest margins is therefore to look at what they have actually reported as earnings in their financial statements (as per their disclosure statements). Figure 3 shows us the quarterly weighted average figures for interest costs, revenues and spread⁵ for the four major banks plus TSB for the period from the September quarter 1996 through to the June quarter 2009.

Figure 3: The trend in interest spread⁶



This shows us that, in the longer term, spreads have been moving steadily downwards, although there has been some minor upward movement since the September quarter 2008 (from 1.46% to 1.68%, although that figure of 1.68% in the June quarter of 2009 is still significantly below what was being earned in 2006 and earlier). If we look at net interest income relative to average total assets for the period since 2006, we do not see any such increase, which suggests that the effect observed

⁴ Note 2 of Table HC10.

⁵ Spread is defined as the interest revenue on average interest earning assets less the interest cost on average interest-bearing liabilities.

⁶ Data have been obtained from the author's quarterly analyses of banks' published disclosure statements.

with spreads reflects an increased level of non-interest-bearing liabilities relative to non-interest-bearing assets.⁷

A further factor to contribute to the public disquiet over interest rates, although not particularly evident in the previous graphs, is the delays that occur in banks adjusting their interest rates in response to changes in the underlying cost of funds, and the perception of this contributed to support for the inquiry. There is indeed such a delay, which reflects banks' needs to assess the change in underlying interest costs, for the change to be made to the quoted rate, and then for the changed rates to come into effect.⁸ Such effects are particularly marked when we see as severe a reduction in interest rates as were observed in late 2008 and early 2009.

Figure 4: Banks' revenue and deposit margins (decomposition of the interest spread).⁹

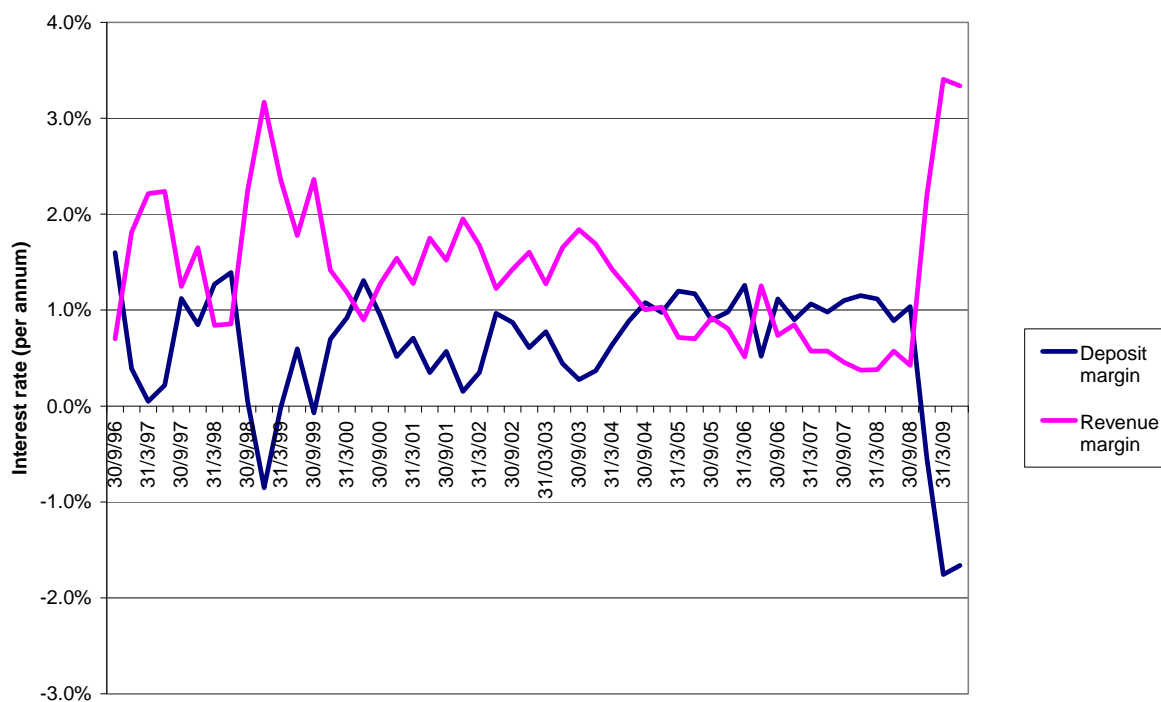


Figure 4 shows us banks' quarterly interest costs and revenues relative to the 90-day bill rate as an indicative cost of funds (with the revenue margin representing the difference between banks interest revenue and the 90-day bank bill rate, and the deposit margin representing the difference

⁷ In fact, the relative proportions of both assets and liabilities that are interest bearing have declined, which largely reflects the adjustments arising from banks being required to revalue their (off-balance sheet) derivative positions to market value.

⁸ See Mester & Saunders (1995).

⁹ Data are derived from the author's quarterly analyses of banks' disclosure statements. The set of banks included in this analysis is the four major banks (including those that they have acquired over the period) plus TSB Bank Ltd.

between the 90-day bank bill rate and banks' cost of funds. The sum of the two, which is the spread, shows as more or less constant, consistent with what we observed for banks' spreads in Figure 3). In Figure 4, we can see two periods when banks' revenue margins rose to particularly high levels, in early 1999, and again in 2008, both of which were periods when the general level of interest rates fell very sharply. On each of these occasions, however, the deposit margin became negative. Although the banks failed to reduce their lending rates at the same speed as the general level of interest rates fell, they were unable to reduce their deposit rates as quickly either, with the result that the banks' ended up paying more than the 90-day bill rate for deposits in the relevant quarters.¹⁰ As we saw in Figure 3, the overall interest spread (the sum of these two components) was not significantly affected. In respect of banks' overall business, the argument to the effect that banks have been widening their margins during the economic crisis is unproven.

The Inquiry's Report raises three further issues with regard to interest rates, however – the interest rates charged for small business lending, for farming, and for credit cards (Section 5.2). It should be noted at the outset that it is reasonable for non-housing lending to be at higher interest rates, reflecting the higher risks associated with it: the question then becomes one of whether the margins are appropriate.

Most farm lending is provided by way of (long) term loans, for which no separate interest rate series is available, and it is therefore not possible to make a reliable assessment of what problems there might be with interest rates applying to such loans, although anecdotal evidence would suggest that farm loan interest rates may even be lower than those applying for housing (and it is interesting to note that farm lending has been one area of significant growth for New Zealand banks since the onset of the financial crisis). The predominance of fixed rate lending for farming would also suggest that interest margins were likely to be lower than otherwise (consistent with what is observed in relation to housing lending).¹¹

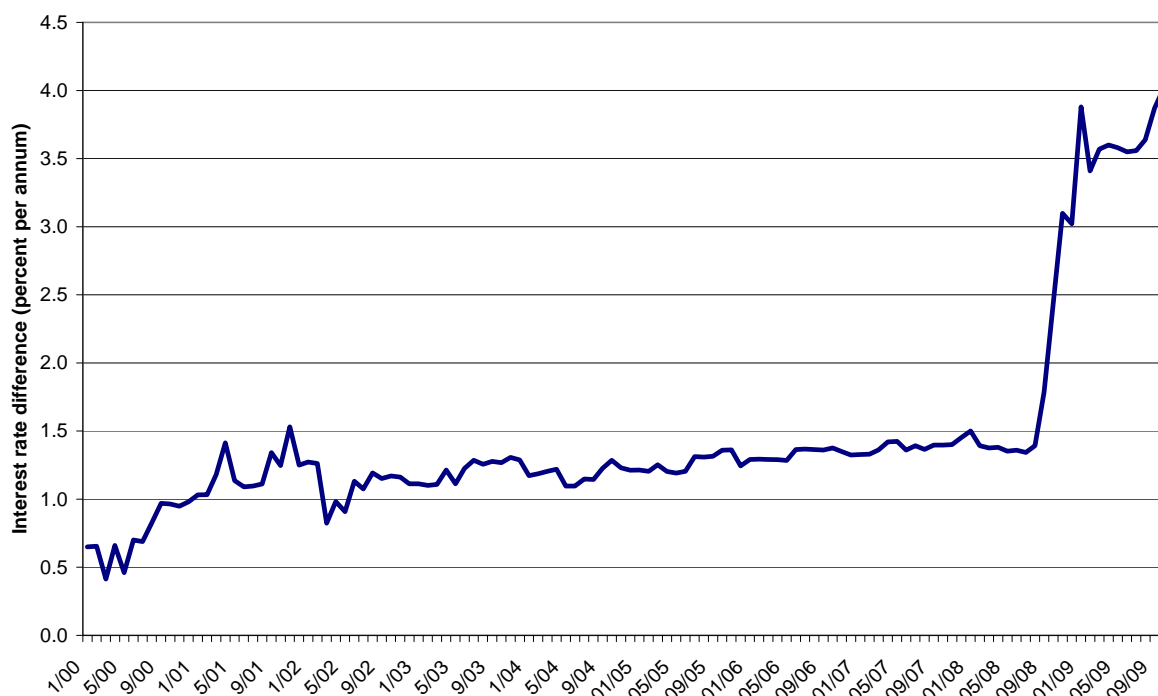
Farm overdrafts and small business lending other than that secured by mortgages over residential property are generally priced relative to banks' base lending rates. If there was a significant widening of the margin between the base rate and the standard floating mortgage rate, we could say that

¹⁰ This is also consistent with the attention given in the Inquiry's Report (p 21) to the way the six-month deposit rate has been above the OCR since February 2009. Note also that deposit costs will be subject to some further relative increase in the next few months as the banks position themselves in advance of the implementation of new liquidity rules at 1 April 2010.

¹¹ It is expected that there will be some relative increase in loan rates for farming during 2010, as the Reserve Bank brings into effect new rules to increase the Loss Given Default estimates banks using advanced approaches under Basel II will be required to use for estimating capital requirements for farm lending.

margins had increased. We show the trend in the relative margin in Figure 5: it is evident that it has increased, which could only obviously be justified if risk had increased. Alternatively, there might be an argument that, during the good times of the earlier part of the decade, the favourable outcomes banks had observed caused them to underestimate or understate the risks involved,¹² and that it has taken the shock of the financial crisis to cause them to reappraise that risk (and increase the margins to what they ought to have been all the time). We cannot be sure as to whether these excuses are valid, or whether the banks have simply seized the opportunity of there being a relative lack of competition in the small business lending market to widen their margins. Competition is discussed further in a separate section below.

Figure 5: The margin between banks' base lending rates and their floating mortgage rates.¹³



Credit card interest rates also appear to be unresponsive to changes in banks' housing lending rates, as can be seen in Figure 6. The standard defence argument in respect of the high interest rates in this case is that a proportion of credit card advances is non-interest-bearing (where cardholders clear their balances in full prior to payment due date), and that banks need to be compensated for this, but the Reserve Bank figures show no increase in the proportion of credit card advances that

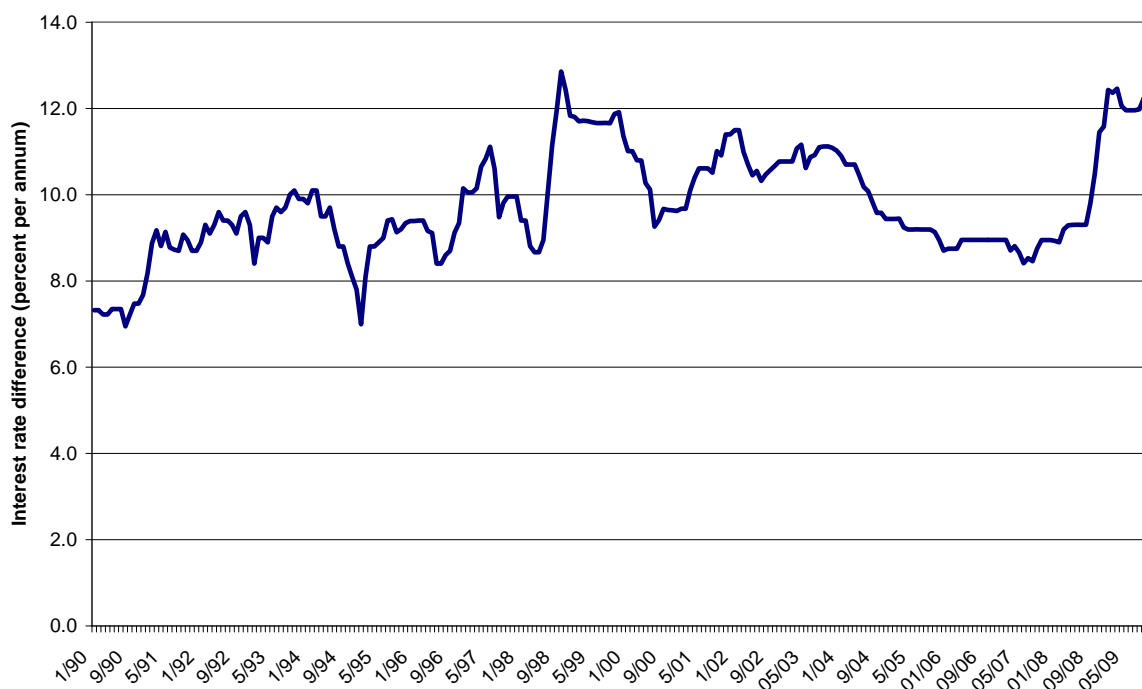
¹² This might reflect what Guttentag & Herring (1986) refer to as "disaster myopia", or what Berger & Udell (2004) refer to as the "institutional memory hypothesis".

¹³ Data are from the Reserve Bank's data table B3.

are non-interest-bearing. The Reserve Bank also provides data on the effective interest rate on all advances, which was 12.77% in September 2009, compared with 13.8% in September 2008.¹⁴

More realistic explanations for the relatively high credit card interest rates lie in the way that the small dollar amount of credit card balances undermine the effectiveness of competition. Total interest-bearing balances outstanding as at 30 September 2009 were only \$3437 million, or less than 1% of total bank assets.¹⁵ The interest rates on credit card debt are just not that important in terms of bank profitability, and banks are inclined to shun the cost of changing interest rates (and it may be noted that rates do not increase by much when the general level of interest rates increases). From the cardholder side, balances are generally small, and if people are expecting to pay off the outstanding debt soon, they don't worry too much about how much interest they pay in the meantime (Chandran et al, 2005). Related to this is the question of whether people really know what the interest rates are on their credit cards, and it is interesting to note the comments in the Inquiry's Report to the effect that standard credit card interest rates were in excess of 20%, when actual rates at the time of the Inquiry were 18.4%!¹⁶

Figure 6: Credit card interest margin relative to floating housing mortgage rate.¹⁷



¹⁴ Data are from the Reserve Bank's data table C12.

¹⁵ By contrast, total interest-bearing balances on credit cards in Australia at 30 September 2009 were AUD 32.4 billion, or 1.27% of total bank assets.

¹⁶ The simple average rate was 18.4% from May 2009, whereas the weighted average was 18.2% from May through to August 2009, and 18.1% in September (Reserve Bank Data table C12).

¹⁷ Data are from the Reserve Bank's data Tables B2 and C12.

A further suggestion made by the Inquiry is that banks may have been increasing their interest margins to compensate themselves for higher levels of losses from bad and doubtful debts. Detailed analysis of banks' financial statements do not support such a proposition, and if one considers market dynamics (assuming there is some effective competition), such an outcome would be unlikely. If one or more banks sought to increase margins to compensate themselves for lending losses, they would be at risk of losing business to banks with lower levels of bad and doubtful debt expense (which for the first two quarters of 2009 would have been BNZ, Kiwibank and TSB).

Competition

The popular argument adduced to explain the allegedly unresponsive interest margins in New Zealand is the inadequacy of competition, although issues around competition received relatively little attention in the Report of the Inquiry. Recommendations were only that Kiwibank's capital should be increased so that it could compete more effectively, and that there should be a full review of competitive conditions in the New Zealand banking sector.

Achieving a satisfactory measure of competitive conditions in the New Zealand banking market (and other similar markets) is challenging. A simple count of the number of competitors, or of the level of the Herfindahl-Hirschman index (HHI) does not tell anything about competitive behaviour. A concentrated market is not necessarily an uncompetitive one. If we calculate the HHI for the New Zealand banking market at 30 June 2009, based on total assets, we get 2178, a figure which would normally raise questions about the extent of competition, but in practice it is the dynamics of the competitive process and the extent to which banks jockey for advantage (rather than pursuing a "quiet life") that are more important.

Chan et al (2007), following earlier work by Smith & Tripe (2001), used the Rosse-Panzar technique to explore competitive conditions in New Zealand banking. Both studies found the market to be characterised by monopolistic competition, in that bank revenues responded appropriately to changes in underlying costs. Chan et al (2007) looked at the period 1998 to 2005 using an unscaled version of the Rosse-Panzar model, and found that the New Zealand market appeared to be more competitive than the Australian. It would be bold to suggest that either of these studies were definitive, however, and there would be no harm, apart from the time and effort involved in doing so, in undertaking further work on assessing competitive conditions in New Zealand banking.

The point about Kiwibank requiring further capital if it is to be able to continue to compete against the existing major banks is fair: the questions that are not asked in the Inquiry's Report are whether it is appropriate for Kiwibank to keep on growing, and what the costs would be of its doing so.

Against the background of the global financial crisis and the slowdown in the New Zealand economy, the banking sector as a whole has stopped growing. The individual banks that are showing growth are Kiwibank, Rabo and TSB Bank. TSB is amply capitalised, with a risk-weighted capital ratio at 30 June 2009 of 17.05%. As part of a large multinational banking group, Rabo is not constrained for capital in its New Zealand business. Kiwibank, by contrast, has had its capital squeezed somewhat by the marking to market of its off-balance sheet derivative positions (mainly swaps) which meant that, as at 30 June 2009, its cash-flow hedge reserve showed a negative position of \$72 million, out of total equity of \$355 million. Its risk weighted capital ratio was 10.45% (compared to 9.98% at 31 March, 2009), but this was after an equity injection of \$20 million during the quarter. With interest rates rising and the time to maturity of the swaps that are out of the money shortening, the negative balance in the cash-flow hedge reserve will reduce, while the fact that the swaps have been marked to market will be increasing net interest income (and boosting profitability), but Kiwibank would be likely to continue to require further capital injections if it is to sustain growth at its current rate.

An expansion of Kiwibank's business could be risky if it were to involve significant lending to business. New or relatively new entrants to business lending are inclined to be exposed to greater proportions of lower quality credit proposals, and often end up being exposed to greater losses in consequence.

The OCR and monetary policy

The OCR receives quite a bit of attention in the Inquiry's report, most notably in the terms we have discussed above, as no longer being a reliable indicator of trends in banks' interest costs, although there must be a question as to how effectively it ever filled that role. In terms of the discussion provided by Cottarelli & Kourelis (1994), the important feature of a policy rate such as the OCR can be to provide a clear signal to the market, which allows banks to adjust rates more promptly (and by a consistent amount) than they might otherwise (reflecting the fact that there is greater certainty as to the policy-makers' intentions). Changes in the OCR should lead to changes in other interest rates further along the yield curve, but it will not be the only factor impacting on those other interest rates, and it is unrealistic to expect an exact correspondence.

Criticisms of the OCR and the implementation of monetary policy in the Inquiry's Report went beyond this, however, even if it is arguable that the criticism did not relate to the banking system per se. Monetary policy was suggested as having contributed to an overvalued and volatile exchange rate, adverse conditions for exporters and mounting overseas debt, while it had failed to control the expansion of bank debt which had led to an asset price bubble (affecting housing in particular). These criticisms are likely to have provided an underpinning for the subsequent announcement by Labour Party Leader Phil Goff on 19 November 2009 that the party wanted to revisit New Zealand's monetary policy arrangements (although there has been no statement as to what alternative arrangements would be proposed).

Tripe et al (2005) demonstrated that the OCR regime showed less volatility in interest rates than the previous monetary policy arrangements, while it is far from clear that the current regime has led to a more volatile exchange rate for the New Zealand dollar than existed at other times since the floating of the currency in 1985. The alternative to having a floating currency, the value of which may from time to time appear to get out of line with fundamentals, is to fix its value, but one would then be faced with the conundrum of how this ought to be done, and what the value ought to be fixed to – currencies all around the world move relative to each other. If the New Zealand dollar was fixed against the Australian dollar, we would still be subject to the movements of the Australian dollar against the US dollar, the Euro and the Yen, while if we fixed against the US dollar, we would still be subject to movements against the Australian dollar, the Euro and the Yen.

There are further consequences of fixing the value of the currency that are not addressed. If monetary policy is used to try and control the value of the currency, there is no longer any scope to use monetary policy for any other purpose, such as to attempt to manage the price and/or quantity of available credit. Moreover, in such circumstances, New Zealand would be required to follow the monetary policy of the country against which the value of the New Zealand dollar was fixed (although if that was Australia, would that be such a bad thing? Would a single currency with Australia be such an undesirable choice?).

If the objective was also to control the level of overseas debt, it is likely that the appropriate policy action would be to revert to a position where inflows and outflows of funds to and from New Zealand were strictly limited by an exchange control regime, such as was in place between 1938 and 1985. This would severely limit the freedoms to undertake international transactions to which New Zealanders have become accustomed, and there is some question as to how feasible such a re-

imposition of controls could be in a world that has become used to free flows of funds within a globalised financial environment.

It is also not clear how much can be done to restrain banks' credit expansion, although some effects are expected from the implementation of the new liquidity regime with effect from 1 April 2010, and from the Reserve Bank mandating higher capital levels for rural exposures from later in 2010. In the current circumstances, banks' willingness to support further expansion of credit in New Zealand is likely to be reduced because of the reduced profitability of their New Zealand banking business. Why should the Australian banks provide further capital to support lending in New Zealand, when they can earn better returns in other markets? This reduced profitability is largely a reflection of higher expense for bad and doubtful debt provisioning, but the banks have also been experiencing a reduction in underlying profitability (which further undermines arguments to the effect that they have been exploiting opportunities to increase profits as interest rates have fallen). Moreover, in the current environment, it is likely that we would want to see more credit expansion, rather than less!

Summary and conclusion

The key issue discussed in the Inquiry's Report was the allegation that banks had field to reduce their lending interest rates in response to the reductions in the general level of interest rates, as reflected in the OCR. We have demonstrated that this is not at all clearly the case, although there may be some argument that banks have widened their margins in the areas of small business and credit card lending. There is certainly scope to undertake further research in the area of small business lending, the margins applicable to it, the use of mortgages over the proprietors' homes to support such lending, and the extent to which banks place obstacles in the way of such lending that have the effect of limiting what small business can do. In this regard, the Inquiry Report's call for more extensive data collection to discover the extent to which small business lending is being undertaken in the guise of home mortgage ending would be constructive.

It would probably also be helpful, although problematic, to try and gain a better understanding of competitive conditions in the New Zealand banking market. This is likely to have changed in recent years with the demise of large portions of the finance company sector, which may mean that the banks will now find themselves in a relatively more dominant position than previously. This dominance may be accentuated by regulatory changes moving a wider range of financial institutions to oversight by the Reserve Bank, with the mandatory credit ratings associated with that change and the consequent benefits for larger institutions through the deposit protection scheme. There is also

the argument that monetary policy is likely to be more effective in a banking market that is more competitive.

The monetary policy conundrum is more complex to solve. It is easy to point fingers at recent arrangements and note that there are a range of undesirable outcomes, although whether these are altogether a consequence of monetary policy and its implementation using the OCR are another matter. It is not at all clear as to what alternative monetary policy arrangements could be established that would not also have problems associated with them, and how those problems could be overcome. It may be that alternative approaches to monetary policy could lead to worse outcomes.

There are other aspects of the Inquiry's Report that I have not sought to discuss, often because they have an even broader economic perspective. There are potential issues around the taxation of residential property investment, as the Report notes, but those are not issues that I could expect to resolve in this commentary!

References:

- Berger, A. N. & Udell, G. F. (2004). The institutional memory hypothesis and the procyclicality of bank lending behaviour. *Journal of Financial Intermediation*. 13, 458-495.
- Chan, D.; Schumacher, C. & Tripe, D. W. L. (2007, September). *Bank competition in New Zealand and Australia*. 12th Finsia/Melbourne Centre for Financial Studies Conference, Melbourne. Available at http://www.melbournecentre.com.au/12th_Finsia_MCFS_Conference.htm#academic
- Chandran, C.; Matthews, C. D. & Tripe, D. W. L (2005). Competition in the New Zealand credit card market from the consumer perspective. *Journal of Asia-Pacific Business*. 6 (1). 59-74.
- Cottarelli, C. & Kourelis, A. (1994). Financial structure, bank lending rates, and the transmission mechanism of monetary policy. *IMF Staff Papers*. 41 (4). 587-623.
- Guttentag, J. M. and Herring, R. J. (1986). Disaster myopia in international banking. *Essays in International Finance*. Number 164. Princeton University.
- Mester, L. & Saunders, A. (1995). When does the prime rate change? *Journal of Banking and Finance*. 19. 743-764.
- Nield, I. (2008, December). Evolution of the Reserve Bank's liquidity facilities. *Reserve Bank of New Zealand Bulletin*. 71 (4). 5-17.
- Report of the Parliamentary Inquiry into Banking*. (2009). Available at: http://www.issues.co.nz/library_images/bankingquiry/report_of_the_parliamentary_banking_inquiry.pdf
- Reserve Bank of New Zealand (2009, November). *Financial Stability Report*. Available at: <http://www.rbnz.govt.nz/finstab/fsreport/>
- Smith, R. & Tripe, D. W. L. (2001). *Competition and contestability in New Zealand's banking system*. Paper presented at the 14th Australasian Finance and Banking Conference, Sydney. Available at <http://centre-banking-studies.massey.ac.nz>.
- Tripe, D. W. L.; McDermott, J. & Petro, B. (2005). A test of the response to a monetary policy regime change in New Zealand. Published in Batten J. A & Fetherston, T. (eds), *Asia Pacific Financial markets in comparative Perspective: Issues and implications for the 21st Century*. *Contemporary Studies in Economics and Financial Analysis*, Vol 86 (pp 453-467). Elsevier.