

The role of banks in the economy – improving the performance of the New Zealand banking system after the global financial crisis

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I Introduction

The New Zealand financial system has been significantly tested in recent years by the effects of the global financial crisis, volatile global commodity prices, the end of a domestic housing boom, and the resulting slowdown in domestic economic activity between 2007 and 2009. Over the past year, even with the economic recovery underway, the financial system has faced further challenges from the series of earthquakes in the Canterbury region and from ongoing fragility in the global financial markets due to sovereign debt concerns.

Unlike the case in many countries, New Zealand's banking system has remained relatively resilient over this period. Banks dominate the New Zealand financial system to an extent seen in few other economies, accounting for around 80 percent of the total assets of the financial system. Moreover, four banks – the Australian-owned subsidiaries and their branches domiciled in New Zealand – account for nearly 90 percent of the banking sector, or just over 70 percent of the financial system as a whole. It is these institutions that provide the lion's share of financial services and products to the New Zealand economy, and therefore are of key systemic importance.

What explains the New Zealand banking system experience relative to other jurisdictions where banks failed, or required government recapitalisation? Briefly, our banks stuck to their knitting over the boom, engaging in very profitable lending to households and the rural sector in the main, without recourse to the sort of exotic financial innovation witnessed elsewhere. As prudential supervisor of the banks we certainly witnessed some decline in lending standards over this time, and what we considered misplaced exuberance around lending to some sectors, particularly later in the cycle. However, New Zealand's conservative application of the regulatory capital regime (under both the original Basel I and the new Basel II frameworks) helped to promote sound risk management and the banks appear to have steered clear of the dubious lending practices evident in parts of the non-bank sector.

Nevertheless, one point needs to be made clearly. When the crisis did hit, the banks did require public sector support. The Government implemented both retail and wholesale funding guarantees to preserve confidence in the banking system, while the Reserve Bank expanded its liquidity facilities in order to ensure that banks remained liquid and well-funded. The financial crisis revealed a major limitation in the banks' business model that lay behind the rapid expansion in credit during the lead-up to the financial crisis – a tendency to fuel much of that lending primarily through short-term wholesale funding from offshore. However, unlike banks in the Northern Hemisphere, the banks' own capital buffers proved sufficient to absorb the rise in non-performing loans and accompanying decline in profitability that followed from the economic slowdown.

Banks play an important role in supporting economic growth and it is worth reflecting on the lessons that have been learnt from the global financial crisis and the experience of the New Zealand financial system over recent years. Under the Reserve Bank Act, the Reserve Bank has a legislative mandate

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to promote the ‘soundness and efficiency’ of the financial system. In thinking about ways to make the financial system safer and more resilient, consistent with the aims of global regulatory reforms, we need to take both these dimensions of financial system performance into account. More stringent regulations may well make the financial system safer but possibly at the expense of the efficiency and cost at which it provides services to businesses and consumers.

2 What role do banks play in the economy?

Any modern financial system contributes to economic development and the improvement in living standards by providing various services to the rest of the economy. These include clearing and settlement systems to facilitate trade, channelling financial resources between savers and borrowers, and various products to deal with risk and uncertainty.

In principle, these various functions can be provided by banks or other financial institutions or directly through capital markets. Banks and other financial intermediaries exist because they are an efficient response to the fact that information is costly. Banks specialise in assessing the credit worthiness of borrowers and providing an ongoing monitoring function to ensure borrowers meet their obligations. They are rewarded for these services by the spread between the rates they offer to the accumulated pool of savers, and the rates they offer to potential borrowers. This process is known as ‘maturity transformation’ and is at the heart of modern banking. Banks offer a repository for savings, and then transform them into long-lived (illiquid) assets – housing loans and lending to businesses. In addition, banks play a role in providing payment and settlement services which are necessary for households, business and other financial institutions to settle day-to-day transactions.

As a country becomes more developed, one typically sees the capital markets playing a greater role in supplying financial products and services relative to that supplied by the banks. In many advanced economies, for example, raising business debt through securities rivals or exceeds that provided through the banking system. Unusually, New Zealand has a large banking sector, while the role played by the capital markets and non-bank financial institutions is small.

Table 1 compares New Zealand to five other economies whose banking systems also tend to dominate their financial systems, using data immediately prior to the financial crisis as compiled by the IMF.² Table 2 compares the New Zealand and Australian financial systems. The following points emerge:

- Relative to the financial system as a whole, the New Zealand banking system is large in common with the other countries included in the table. New Zealand’s banking system is larger than Australia on this metric.
- In relation to the size of the economy however, the New Zealand and Australian banking systems are of roughly equal size, and much smaller than the other countries identified by the IMF.
- New Zealand’s financial system is much smaller than in the other economies included in Table 1. On the eve of the crisis Iceland’s financial system was 4 times as large as New Zealand’s. New Zealand’s financial system is also smaller than Australia’s largely reflecting Australia’s compulsory superannuation and the large funds management business.
- The New Zealand banking system is not as internationally active as the countries in the IMF sample as measured by gross foreign assets and liabilities. However, our banking system’s negative *net* foreign asset position in 2007 was similar to Ireland’s, but smaller than

² IMF (2010), “Cross-cutting themes in economies with large banking systems”, Policy Paper, 16 April.

Iceland's. (The rest of the world's net claims on the New Zealand banking sector is also reflected in figure 1 below).

- New Zealand has a relatively highly concentrated banking system, even compared with those countries with large banking systems. The big four Australian-owned banks command a larger role in the New Zealand financial system, compared to their parents in Australia.

Table 1:
Bank-dominated financial systems before the crisis – a comparison

	Iceland	Ireland	Switzerland	Hong Kong	Singapore	New Zealand
<i>Financial sector size and growth</i>						
Financial sector assets (% of GDP, 2007)	1071	1129	873	931	876	242
Financial sector assets (% of GDP, 2001)	218	711	706	574	836	212
<i>Financial sector structure</i>						
Bank assets (% of total financial assets)*	72	76	66	71	91	75
Banking sector concentration* (share of the largest 3 banks)	79	34	67	55	31	68
<i>Banking sector</i>						
Bank loans (% of total bank assets)*	69	48	41	25	26	78
Bank assets (% of GDP, 2007)	876	894	664	641	789	184
Bank assets (% of GDP, 2001)	121	468	518	474	784	152
Bank foreign assets (% of GDP, 2007)	367	574	451	386	447	8
Bank foreign liabilities (% of GDP, 2007)	491	618	223	230	442	62
Bank <i>net</i> foreign assets (% of GDP, 2007)	-124	-44	228	156	5	-54

(*) average 2003-2007

Source: IMF, RBNZ.

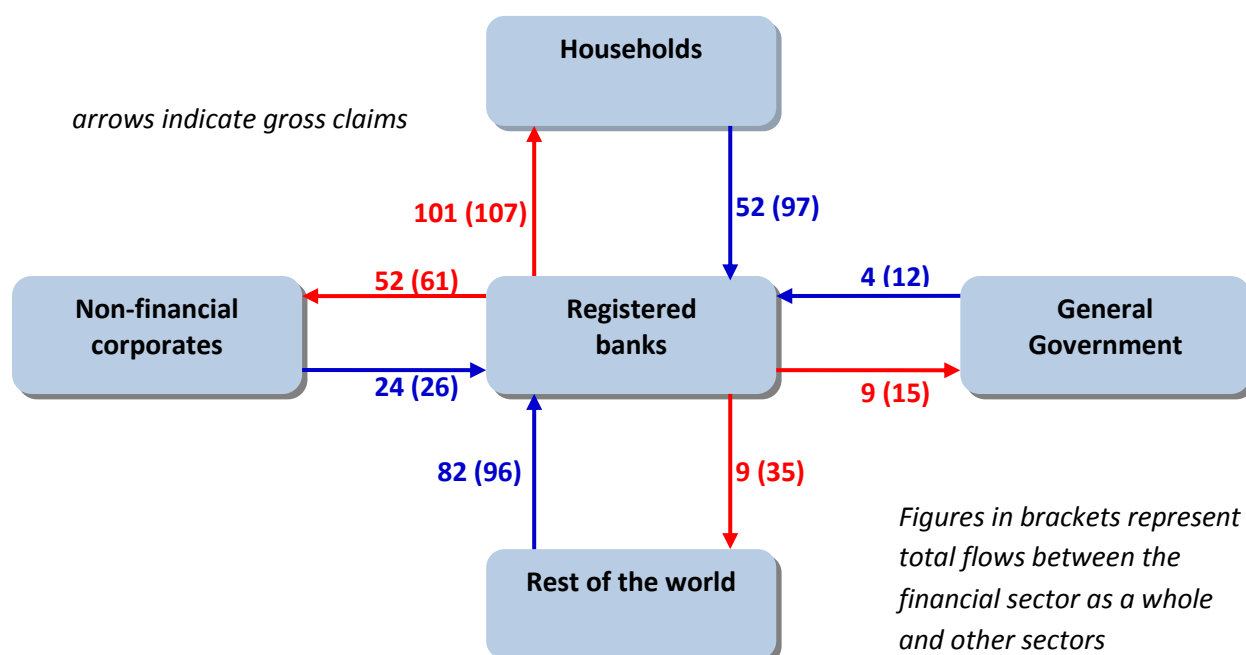
Table 2
Financial system structure – comparison with Australia

<i>(as at December 2010)</i>	New Zealand	Australia
Total financial system assets <i>as a percent of GDP</i>	\$474 bn 244%	AU\$4.6 tr 340%
Number of banks	20	54
<i>Foreign branches</i>	10	33
<i>Locally incorporated</i>	10	21
<i>Domestically owned</i>	3	12
Total bank assets	\$380 bn	AU\$2.7 tr
<i>as a percent of total financial system assets</i>	80%	58%
<i>as a percent of GDP</i>	195%	197%
Big-4 banks' assets		
<i>as a percent of total bank assets</i>	89%	77%
<i>as a percent of total financial system assets</i>	71%	43%
Stock market capitalisation (2009) <i>as a percent of GDP</i>	25%	180%

Sources: RBNZ, APRA, RBA, World Bank.

The dominant role of banks within the New Zealand economy can also be examined by looking at financial claims between the different sectors of the economy – financial corporates, non-financial corporates, households, government and the rest of the world. As can be seen from figure 1, banks dominate the flows between the financial sector and the rest of the economy.

Figure 1
Financial claims between registered banks and other sectors, December 2009
(percent of GDP)



New Zealand has a very 'plain vanilla' banking system with a large proportion of assets being loans to households and businesses. Relatively few of its assets are held in the form of trading securities. New Zealand's banks largely fund themselves 'on balance sheet' rather than through the securitisation channel common in some other countries. The banks have little in the way of funds under management, nor do we allow them to conduct much insurance business. Reflecting New Zealand's history of current account deficits, the banking system has a reliance on foreign wholesale markets, particularly the short-term funding markets.

Given these trends and our relatively underdeveloped capital markets, the question can be asked whether the structure of our financial system is optimal for the economic growth outcomes we would like to achieve. The answer is by no means clear. The failure of any one of our larger banks could have serious repercussions for the rest of the economy. Moreover, there may be efficiency concerns if the banks are perceived by their customers and investors to be 'too-big-to-fail' and hence gain a competitive advantage over other banks and other non-bank financial institutions or financial markets.

New Zealand firms could well benefit from greater capital market development to help them grow and reach the scale necessary to compete on the world stage – a point made by the Capital Markets Taskforce and more recently the Savings Working Group. Larger capital markets might help to stimulate greater competition in the financial system by providing a substitute for bank funding of both small and large businesses. However, it is not clear whether our underdeveloped capital markets are more a symptom of low national savings or a direct cause of relatively low growth outcomes over the past two decades. Finally it may well be that because of the large number of small businesses in New Zealand, relationship lending through a bank-based system is actually an optimal arrangement.

3 Banks and financial (in)stability – making the system safer

Transforming short term deposits into longer term lending – one of the most important functions that banks perform for the rest of the economy – is also what makes financial systems prone to fragility. This process exposes banks to illiquidity or possibly insolvency given the possibility of bank runs from depositors and creditors, or deterioration in lending quality. Banks' own practices and financial regulation have an important bearing in reducing or amplifying this risk. For example, banks have choices around how much debt they use to fund their lending (leverage), while the quality of that lending is influenced by a number of governance-related factors. These include the control that creditors and shareholders exert over bank managers, as well as the internal risk management systems of the bank. Regulations also set boundaries on what banks are able to do.

Given the interconnections between a bank and the rest of the economy, the effects of a bank in stress or failure can potentially spill over to the wider financial and economic system when financial savings cannot be accessed, the credit intermediation process is disrupted or the transactional role via the payments and settlement systems is undermined. The extent of such contagion will depend on the 'systemic importance' of the bank, which will be roughly related to its size, the nature of its exposures, interlinkages with other banks and so forth. Governments are naturally reluctant to see such important institutions fail since economic crises that are accompanied by major banking crises are typically far worse than usual business cycle slowdowns. However, as we have seen from the experience of Ireland and Iceland, supporting stressed banks can create major fiscal problems, particularly if the banking system is very large relative to the size of the economy. A banking crisis can evolve into a sovereign debt crisis, which itself can have cross-border contagion effects.

As mentioned at the outset, the New Zealand banking sector did not experience the sorts of problems that affected the US or European banking systems. Despite a tightening in lending conditions and standards, which had a significant effect on some businesses, our banking system was largely able to maintain the confidence of depositors and creditors. However, it did still require a backstop of government support. In the aftermath of the crisis we are aligning our prudential initiatives with global efforts focussed on redesigning the regulatory safety net. This improvement in the soundness of our banking system centres on the implementation of stronger microprudential standards; the development of a new macroprudential framework; and improved failure resolution management.

(i) Microprudential standards

Microprudential settings in New Zealand were largely appropriate heading into the crisis. Both before and after the implementation of Basel II, our capital requirements ensured locally incorporated banks held high quality (Tier 1) capital that excluded hybrid debt/equity instruments in order to absorb potential losses. The larger banks that were accredited to use their own internal models to calculate capital requirements under the Basel II guidelines were also strongly encouraged to use risk parameters that 'looked through' the boom-bust cycle. Basel II largely appears to have served us quite well, although the banks' initial modelling of capital requirements for both housing and rural lending was not sufficiently conservative, a point highlighted by the sharp fall in farm prices and earnings in 2008-09. In response, the Reserve Bank has initiated a number of adjustments, most recently a tightening in the area of capital requirements for farm lending.

Over the course of the crisis the Reserve Bank introduced a Prudential Liquidity policy to ensure that bank lending is largely funded by stable (retail and long-term wholesale) funding and to ensure that banks have sufficient liquid assets to withstand short-term market disruptions. Banks are now also able to issue covered bonds to help diversify and lengthen their wholesale funding. Banks should now have more robust liquidity structures, reducing their need to call on emergency liquidity facilities with the Reserve Bank during periods of funding market volatility.

The Reserve Bank will be reviewing its capital adequacy framework in view of guidelines from the Basel Committee now widely known as 'Basel III'. In addition there may be minor developments to our liquidity policy. We are broadly supportive of Basel III, but will implement it in a manner that is appropriate for our financial system. We don't believe our banking system requires the sort of radical overhaul that is being discussed as necessary in some other countries, given the relative resilience of our banks over the course of the crisis.

The Reserve Bank's supervisory approach for banks has also changed, with a shift from a high reliance on market disclosures, to one that uses more private reporting. This will enable the Reserve Bank to utilise more detailed and timely information from internal reports that banks themselves use to manage risk.

(ii) Macroprudential framework

Microprudential policies are typically aimed at building the resilience of individual institutions, while a macroprudential approach focuses on system-wide risks and vulnerabilities and a range of instruments or tools that might be used to build greater financial system resilience to the risks associated with the extremes of the credit cycle. Examples include countercyclical capital requirements, liquidity ratios or caps on loan-to-value ratios for housing lending. Some of these tools may also have the ability to directly dampen the credit cycle.

We have been considering a number of potential instruments for these purposes including credit-based measures and capital and liquidity buffers. Our examination of the costs and benefits of these tools suggests we should keep our expectations modest in terms of the effectiveness of any one tool particularly as instruments to help control the flow of credit. However, we have concluded that our Core Funding Ratio - part of the Prudential Liquidity policy - could help to dampen periods of excessive credit growth in some circumstances by making the marginal cost of funding more expensive than it would be were it not in place.

(iii) *Failure resolution management*

One important lesson from the crisis was that few countries had an adequate framework for resolving the failure of a systemically important bank or financial institution in an orderly fashion. Moreover, the existing resolution tools did not address the cross-border complications that occur with globally active banks. Improving the resolution framework is an important component of efforts to address the systemic risks posed by the largest and most interconnected of the international banks.

New Zealand's largest banks are not of global systemic importance and nor are their Australian parents. However, distress in any one of our larger banks in New Zealand could have a potentially large negative effect on the New Zealand economy and could expose the government to large fiscal risks in the event of a bailout. The recently announced Open Bank Resolution (OBR) policy is a failure resolution option that aims to preserve the continuity of banking services to retail customers and businesses, while placing the cost of a bank failure primarily on the bank's shareholders and creditors rather than the taxpayer. Under OBR, the creditors of a distressed bank, including its depositors, would face a 'haircut' of their funds based on initial estimates of the shortfall in the bank's capital position. Access to their remaining funds would be supported via a government guarantee. This would allow the affected bank to remain open for business while the longer-term options were worked through.

We believe OBR would help address the 'too-big-to-fail' problem posed by our largest banks. Currently we are not contemplating additional loss absorbency or capital surcharges for the largest New Zealand banks, measures that are currently being planned for the largest 30 or so global banks.

4 Making the financial system more efficient – the role of banks

The banks' role as financial intermediaries has a major bearing on how efficiently the economy allocates its resources between competing uses. In considering efficiency, we are interested in whether lending activity helps resources flow to their 'best use' or whether some sectors get too little or too much credit relative to what is needed for the economy to perform at its best. We are also interested in whether lending and other financial activities are provided in a cost effective manner from the point of view of consumers and the degree to which the banks improve and innovate their financial products and services over time.

All else equal, a well-managed bank acting prudently and operating in a reasonably competitive market will be making credit available at an appropriate price to creditworthy borrowers. However, in concentrated banking systems dominated by a handful of large banks, competition may be lacking. Households and firms may end up paying more to access credit (and other bank services) than in a more competitive system.

Financial sector efficiency can also be compromised by boom-bust cycles, which is why there has been a resurgence of interest in how we might avoid or reduce these. During booms, lending

standards may fall significantly and lenders may underprice risk, with too much credit being allocated to any one sector (such as the rural sector or property development). In turn, when the boom turns to bust, the over-allocation of credit may be revealed when physical and human resources become underemployed.

International evidence suggests what might be more important for competition and efficiency is how 'contestable' the banking system (or individual banking product markets) is, rather than simply how many banks operate (i.e. market structure). Contestability is influenced by both the actions of incumbent banks, and by various formal and informal barriers to entry and exit.

Cross country comparisons undertaken by the OECD suggest formal regulatory barriers to entry and exit to the New Zealand financial system are low by international standards.³ While banks seeking registration must meet minimum qualitative and quantitative criteria so that their entry to the market is consistent with the soundness and efficiency objective, the Reserve Bank does not impose quotas of any kind nor do we restrict foreign ownership. However, the costs associated with establishing a new retail branch network in New Zealand appear to be high given the small scale of the market. Notwithstanding the success of Kiwibank in the retail market, the fact remains that it is difficult for new players to enter the New Zealand market and assume a competitive position other than through direct acquisition of an existing bank or by specialising in a narrow market segment.

In terms of informal barriers to entry, one such barrier may come about from the practical difficulties customers face switching between banks. Shifting one's banking activities from bank A to bank B is usually a more involved process than shifting between cellphone providers or electricity companies. The customer inertia that this creates makes it difficult for new entrants to gain critical mass even if they price their offerings keenly. Encouragingly, some of these barriers may have eased recently through technical innovations at the payment systems level orchestrated by Payments New Zealand (PNZ). More switching implies greater incentives for banks to compete and innovate.

Although some of the smaller banks have succeeded in 'nipping at the heels' of the larger banks and stimulating competition in some markets, overtaking the market share of the larger banks has proven a very tall order. It is likely that the 'franchise' or brand value of the large New Zealand banks is an important factor that gives established banks an advantage. Customers do appear to place considerable weight on the 'brand' of the financial institutions with which they bank and the larger banks have considerable investment built-up in their brands, both tangible and intangible.

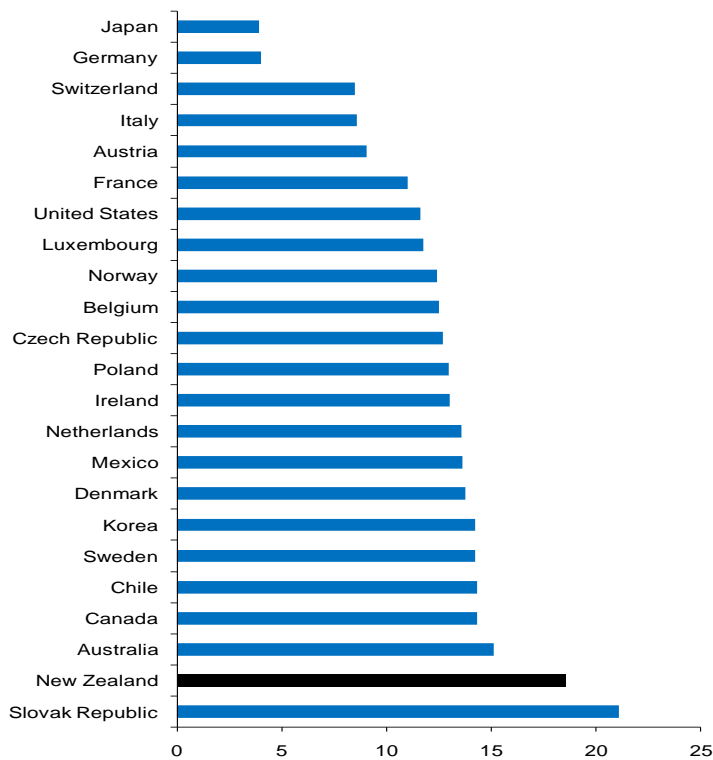
What does all this imply about the efficiency of the New Zealand banking system? Efficiency is very difficult to measure in absolute terms, but two commonly used indicators include the return on equity and operating costs as a share of income. Profitability is a gauge of the economic rents that banks are able to earn, while operating costs tell us something about the efficiency with which services are delivered.

In the decade preceding the global financial crisis, the New Zealand banking system's return on equity (RoE) appears to have been among the highest of the OECD group of countries coming second in a sample of 22 countries for the period 2002 to 2007. Rates of return in New Zealand were ahead of those in Australian banks, which were third highest in the comparison. Operating costs were second lowest in the sample while loan loss provisions were also towards the lower end.

Figure 2

³ OECD (2006), *Competition and regulation in retail banking*, Policy Roundtables.

**Post tax return on equity – OECD comparison
(average 2002-2007)**



Source: OECD, Australian Prudential Regulatory Authority, RBNZ calculations.

While we are acutely aware of the accounting issues that can make these comparisons misleading, taking the comparison at face value would suggest the New Zealand banks (and their Australian parents) were among the world's most cost-efficient, and also among the most profitable. This was at least partly due to their relatively strong asset quality. From a financial stability perspective, the relative strength of the Australasian banks could be seen as a desirable feature. A leaner banking system would have had fewer financial buffers to draw on and therefore would be potentially more exposed to the sorts of risks that arose following the global financial crisis.

However, the question can be asked why the banks' rates of return were not at levels that on average were more typical of other countries. The result could be seen as evidence that competition and contestability in the banking sector were lacking enabling the banks to earn higher profits than would otherwise be the case. However, alternative explanations are also plausible.

One relevant factor is that the sample period covers a major domestic credit boom. A comparison over a longer period would be likely to reveal rates of return more in line with the banks' international counterparts. There have certainly been periods when New Zealand bank profits have been weaker most notably in the early 1990s following the commercial property downturn.

Another potential explanation relates to the higher cost of capital facing New Zealand. Risk-free interest rates have been consistently higher in New Zealand than in most other countries, and this could account for part of the higher observed rate of return in New Zealand. Moreover, the degree of support that the major New Zealand banks receive from their Australian parents allows them to maintain lower capital levels than would otherwise be the case to maintain their credit ratings. Nevertheless, the capital ratios of New Zealand subsidiary banks are similar to those of the Australian parents, and it remains an open question why the Australasian banking system as a whole has been relatively profitable.

Some work we have done comparing the margins that banks charge on some financial products like residential mortgages suggest that the New Zealand banks have not earned interest margins that are particularly high relative to other countries. This would support the view that strong profitability was due to low operating costs rather than undue market power being exercised over customers. However, a comparison across the full range of financial products is difficult due to a lack of comprehensive data and other country differences.

Clearly, operating conditions for the banks have changed profoundly since the financial crisis. It is still too early to be definitive about how this will affect financial performance over the years ahead. In terms of bank shareholders, regulatory changes designed to create safer banks might be expected to lower required rates of return over time. However, a host of other structural changes will also have a bearing on returns. In the past three years, bank balance sheets have shown little growth, with households and businesses choosing to curtail debt and save more. If this trend endures, banks will have less opportunity to generate higher profits through balance sheet expansion. A combination of higher risk aversion, global regulatory changes and sovereign debt issues have led to a rise in the cost of debt funding for banks although where these costs are likely to settle in the longer run is uncertain. The higher funding costs have encouraged some large corporates to raise funds directly in the capital markets in lieu of the banks and it will be interesting to see whether this trend continues. The banks' ability to recover higher funding costs from customers will depend partly on the strength of loan demand as well as competitive pressures from other parts of the financial sector.

All things considered, it seems unlikely that the rates of return in banking enjoyed over the past decade can be sustained in the future.

5 Conclusion

The global financial crisis has focussed policymaker's attention on making their banking and financial systems safer and more resilient to shocks. While New Zealand's bank-dominated financial system stood up well during the crisis and does not require the extensive overhaul required in some countries, we have continued to develop our prudential policies with the aim of improving the resilience of individual institutions and the financial system as a whole. Ensuring that core banking services can continue if any one of our large banks comes under duress, and that the cost of bank failure falls squarely on the shoulders of shareholders and creditors, is another plank in our regulatory reform agenda. Notwithstanding the importance of financial system resilience, we also need to understand more about the efficiency of the financial system when assessing its performance and contribution to the economy.