Financial Stability Report

November 2011

Contents

This report is published pursuant to Section 165A of the Reserve Bank Act 1989.
The charts and tables in the appendix to this report use data available as at 28 October 2011.
More recent statistics may be used in the main body of the report.
This report and supporting data (with some further notes) are also available on www.rbnz.govt.nz

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1 Overview

Risks to the New Zealand economy and financial system have increased since the May *Financial Stability Report*. While progress has been made in recent years in reshaping financial regulation and resolving some aspects of the global financial crisis, other stresses created by weak growth and the overhang of substantial private and public debt have intensified. Most recently, markets have been particularly concerned about the prospect of default by Greece, and further contagion to other highly indebted sovereigns. The outlook for the global economy has also deteriorated with weaker than expected growth, together with elevated financial market volatility in response to the sovereign debt strains in Europe. The exposure of European banks to distressed sovereigns has adversely affected global debt markets, which are an important source of funding for New Zealand's banks.

Against this backdrop, the New Zealand economy has continued to grow moderately over 2011. Credit growth has remained subdued as households and firms continue to consolidate, thus constraining the overall pick-up in domestic demand. Rural incomes have been boosted by high commodity prices related to robust growth in China and other emerging markets, providing an opportunity for farmers to repay debt. However, rising levels of government debt have limited the overall improvement in New Zealand's total indebtedness.

The ongoing disruptions to global financial markets and the recent weakening in global economic growth pose financial risks for New Zealand. Some sectors remain highly indebted despite some progress in reducing imbalances over the past few years. A sharp slowdown in global growth would likely reduce export commodity prices, which could expose highly leveraged farms. House prices remain high relative to fundamentals, and household financial difficulties could emerge if economic activity slows and unemployment increases. The scope for fiscal policy to respond to a sharp decline in domestic economic activity is considerably more constrained than at the onset of the global financial crisis. The recent New Zealand sovereign rating downgrades reinforce the imperative for fiscal consolidation.

Recent risk aversion and financial market turbulence have reduced banks' access to offshore term debt markets, while the cost of term debt is likely to have increased. However, New Zealand's bank-dominated financial system is arguably better placed today to weather global shocks than at the time of the collapse of Lehman Brothers and subsequent global turbulence over late 2008 and 2009. Banks have increased their capital buffers and lengthened the maturity profile of wholesale funding over the past few years. Increases in core funding (retail deposits and long-term wholesale debt) have provided a buffer to help the banks ride out periods of market turbulence, by limiting the amount of debt that has to be rolled over in the near term.

Given the current market tensions, the Reserve Bank has decided to defer, by six months, its planned increase in the core funding ratio (CFR) from 70 percent to 75 percent, which was to have occurred in June 2012. This decision will provide regulatory clarity for banks, and underlines the importance of having a robust CFR while taking account of current market conditions. The Reserve Bank also has the capacity to provide exceptional liquidity support to the banking system should global market conditions deteriorate further – although it is not expected this will be necessary.

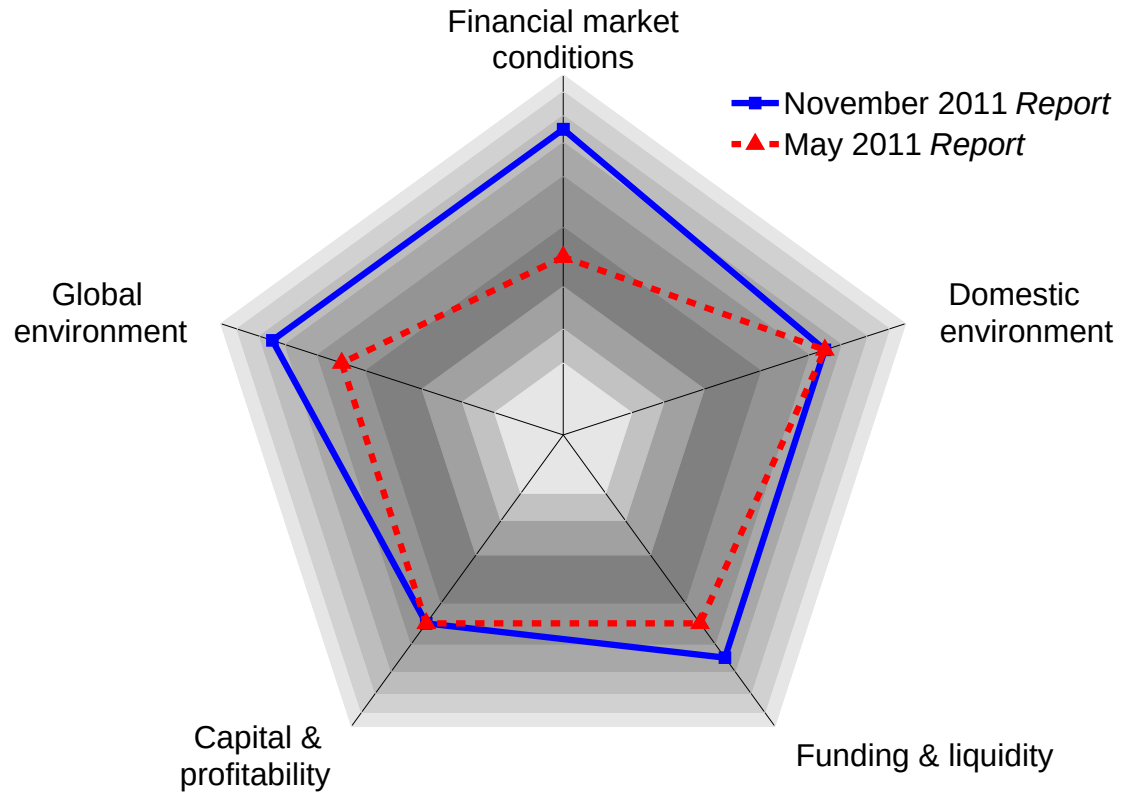
The domestic economy has proven relatively resilient to the challenges posed by the Canterbury earthquakes. The high prevalence of property insurance cover, together with government support programmes, has helped to insulate households and firms in the region. However,

estimates of insured losses have increased significantly since the last *Report* as the Earthquake Commission (EQC) and private insurers continue their assessment of damage. The scale of the earthquake claims settlement process facing insurers, combined with ongoing aftershocks, means that there is considerable uncertainty about the timing of claims settlements and the commencement of reconstruction. Insurers remain cautious about writing new insurance in this environment. One large insurer (AMI) is facing financial difficulties associated with meeting the large value of claims, while several small niche insurers have indicated they intend to withdraw coverage for earthquake-related risk. Higher global reinsurance costs are starting to be reflected in increased non-life insurance premiums for New Zealand customers.

The risks to the New Zealand financial system are summarised in figure 1.1. Financial market conditions and the global environment dimensions of the 'cobweb' diagram have deteriorated since the May *Report* reflecting turbulence associated with sovereign debt markets and downward revisions to US and European growth forecasts. There are also risks of a slowdown in China and other emerging economies, where there are signs of domestic overheating related to rapid credit growth and overvalued property prices.

While some domestic activity data have been positive, this must be weighed against the slow progress in insurance claim settlements and subsequent rebuild in the Canterbury region, leaving the assessment of the 'domestic environment' unchanged relative to May.

Figure 1.1
Financial stability cobweb[1]



Source: RBNZ.
Note: Movements away from the centre of the diagram represent an increase in financial stability risks. The darkest part of the band represents a normal level of financial risk.

[1] See Bedford, P and C Bloor (2009) "A cobweb model of financial stability in New Zealand", Reserve Bank of New Zealand *Discussion Paper*, 2009/11, for the calculation methodology.

Global debt market conditions have materially worsened since May, indicated by an outward movement in the 'funding and liquidity' dimension of the cobweb. The increases in bank core funding over the past few years, coupled with weak demand for credit on the part of households and firms, have meant that New Zealand banks have not needed to undertake term debt issuance in recent months. As banks return to the term debt market over the coming months, it is likely that funding costs will be materially higher than earlier in the year.

The New Zealand banking system remains well capitalised, with all banks well positioned to meet Basel III requirements for larger and higher quality capital buffers. In addition, the level of non-performing bank loans has started to decline, and net interest margins have edged up. These factors have improved banking system profitability. However, bad debt charges are still elevated and profitability is likely to remain below pre-crisis levels, leaving unchanged the 'capital and profitability' dimension of the cobweb.

The Reserve Bank is continuing to strengthen the regulation of the financial system. A consultation paper on the new Basel III capital requirements was released in early November. The Reserve Bank supports the new Basel regime but will adapt some aspects to suit New Zealand conditions. The Reserve Bank has also continued work toward pre-positioning for Open Bank Resolution (OBR). OBR is a policy option designed to ensure the uninterrupted provision of essential banking-related services should an individual bank face financial difficulties, while limiting the need for taxpayer support.

Alan Bollard

Governor

Box A

Objectives of the *Financial Stability Report* and Reserve Bank policy actions

The Reserve Bank Act requires the Bank to produce a *Financial Stability Report* twice a year. This document must report on the soundness and efficiency of the financial system and the measures undertaken by the Reserve Bank to achieve its statutory purpose. The *Report* must contain the information necessary to allow an assessment of these activities.

Chapter 2 of the *Report* discusses the renewed volatility in global financial markets and the decline in the global economic outlook. Chapter 3 highlights how these global developments will affect households, firms and the rural sector, and discusses the economic implications of the Canterbury earthquakes. The impact of the earthquakes on the insurance sector is examined in chapter 4's overview of New Zealand financial institutions.

The New Zealand banking system is well capitalised and profitability is improving. The lengthening of the maturity of wholesale funding, together with robust capital buffers, should help to reduce the impact of current global funding market pressures. Box D in chapter 4 describes the effects of European sovereign debt problems and financial market volatility on New Zealand banks' ability to access wholesale funding.

New Zealand's financial market infrastructure has continued to operate effectively in the past six months (chapter 5). The payment and settlement landscape continues to evolve in areas such as the regulation of over-the-counter derivative transactions and innovations in retail payment systems.

Chapter 6 outlines a number of important domestic regulatory policy initiatives, including consultation over the new Basel III regulatory regime, and developments in the Reserve Bank's macro-prudential policy framework. This chapter also reports on the recently established Council of Financial Regulators – an interagency body to facilitate cooperation between the Reserve Bank, the Financial Markets Authority and government departments involved in financial regulation. Other policy initiatives also discussed include Open Bank Resolution and covered bonds.

2 The international environment and financial markets

Financial market stresses have increased over the past six months as the European sovereign debt crisis has intensified and the global growth outlook has weakened. Concerns about the ability of Europe's political institutions to resolve the ongoing crisis have contributed to market fragility. Funding market conditions have deteriorated, particularly for those European banks with exposure to the worst affected sovereigns. During this period, New Zealand banks have found it difficult to raise debt in term wholesale markets.

Deterioration in the global growth outlook has also weighed on market sentiment, with weaker economic data in advanced economies increasing the risk of a renewed global slowdown. While growth in emerging economies has been relatively robust, strong capital inflows and rapid domestic credit growth have created vulnerabilities in some economies, including China. A sharp slowdown in emerging economies would reduce the growth prospects of both Australia and New Zealand, through weaker export demand and lower commodity prices.

Global economic and financial conditions have deteriorated.

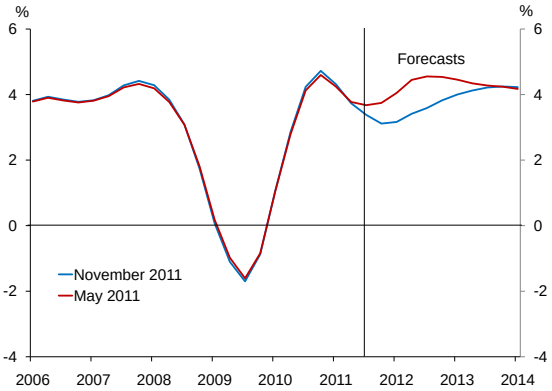
Global financial markets have come under significant stress in recent months, reflecting a weakening in the global growth outlook (figure 2.1) and escalation of the sovereign debt crisis in Europe. These concerns were reinforced by the US debt ceiling impasse and the subsequent US sovereign credit rating downgrade. While the recent deterioration in financial market conditions carries risks for the global economy, growth was already losing momentum during the first half of 2011. Economic data have been softer than expected and growth forecasts have been revised down for most advanced economies, particularly the US and Europe. Weaker growth has also made it more difficult to meet fiscal austerity targets.

Nervousness about sovereign debt sustainability, and its potential to undermine already weak global growth, have led to a broad reassessment of risk. This has been reflected in heightened risk aversion and increased financial market volatility. Equity markets have fallen sharply since the last *Report* (figure 2.2, overleaf). Financial stocks have led the falls, with markets becoming increasingly concerned about bank exposures to distressed European sovereigns.

Figure 2.1

Trading partner growth

(annual average percent change)



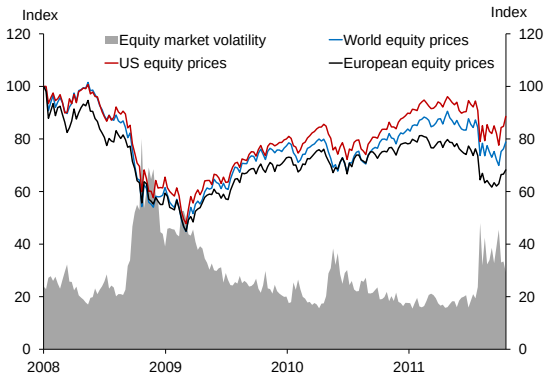
Source: Haver Analytics, RBNZ.

Note: Trading partner growth refers to New Zealand's 16 largest trading partners, weighted by merchandise exports.

Recent financial turbulence comes at a time when many of the underlying imbalances revealed by the global financial crisis persist. Despite some narrowing, current account imbalances remain significant across countries and many advanced economies continue to feature very high levels of both private and public sector debt. Government debt in particular has increased significantly in many advanced economies, due to a combination of lower revenues, fiscal

Figure 2.2

Global equity prices and volatility



Source: Bloomberg.

Note: World MSCI, European MSCI and US S&P 500 equity price indices rebased to 100 in January 2008. Equity market volatility is the VIX index.

stimulus and financial system support measures undertaken during the financial crisis. The rebalancing needed to reduce high debt levels is likely to dampen growth prospects for some time, particularly if fiscal austerity is coupled with ongoing household and business caution.

Across most metrics, financial conditions are less stressed than they were at the height of the global financial crisis (figure 2.3), although a deterioration in the current situation remains a key risk. Many European banks are particularly vulnerable, as discussed below. In Australia and New Zealand, banks have almost no direct exposure to troubled European sovereigns, but remain vulnerable to any further deterioration in global debt markets, despite having restructured their funding arrangements in the past few years.

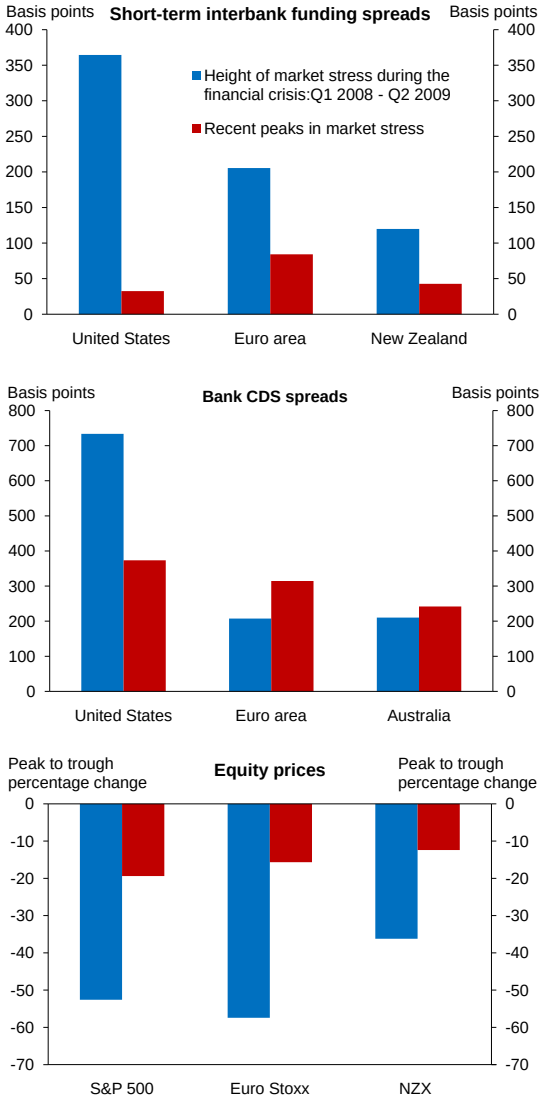
The European sovereign debt crisis has escalated.

Sovereign credit risk and debt market pressures have escalated since the last *Report*. These have spread beyond the initial group of distressed sovereigns – Greece, Ireland and Portugal – to larger indebted sovereigns, including Spain and Italy (figure 2.4). Markets have become increasingly nervous about the possibility of default and further contagion. As a result, Europe's policymakers and political leaders face increasing pressures to achieve a resolution.

The weakening growth outlook for Europe has aggravated debt sustainability concerns, and cast doubt on the ability of highly indebted sovereigns to stabilise

Figure 2.3

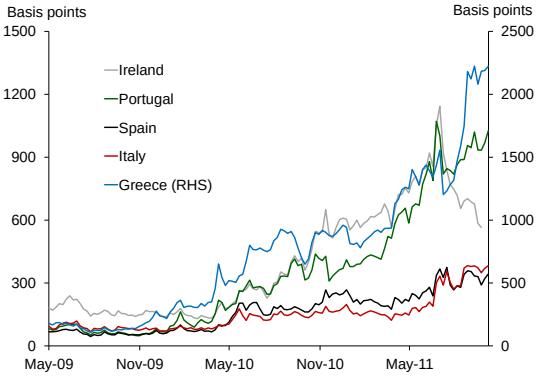
Recent peaks in market stress compared with the height of the global financial crisis



Source: Bloomberg.

Figure 2.4

Government bond spreads

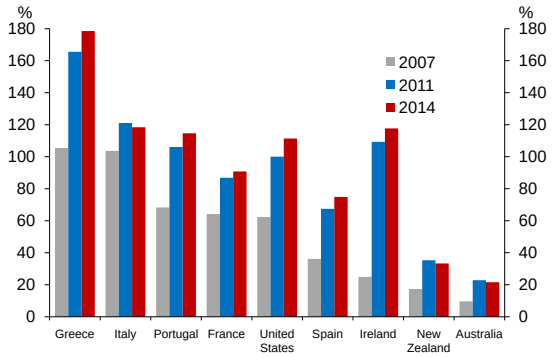


Source: Bloomberg.

Note: Spreads are relative to 10-year German government bonds.

debt relative to income. Fiscal austerity measures aimed at reducing the debt burden will further undermine near-term growth in these countries. Larger European countries including France and Germany are also experiencing weaker economic activity, limiting the scope for other European sovereigns to reduce their debt burdens through export-led growth. Gross government debt ratios are projected to continue to increase in a number of European countries over the next few years, despite increasingly aggressive fiscal austerity measures (figure 2.5).

Figure 2.5
Gross general government debt forecasts
(percent of GDP)



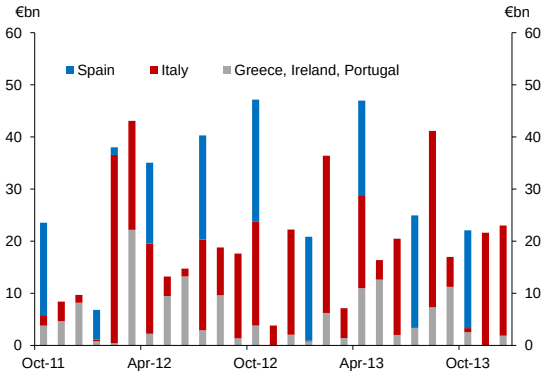
Source: IMF *World Economic Outlook*. September 2011.

Market pricing for Greek sovereign debt suggests an imminent default (figure 2.4). Greece's net government debt is estimated to be around 150 percent of GDP in 2011, with difficulties in reducing fiscal deficits and an economic contraction combining to increase debt ratios in the near term.

Since the sovereign debt pressures resurfaced earlier in the year, there have been a number of rating agency sovereign downgrades, including downgrades to the larger economies of Spain and Italy, and further downgrades to Greece, Portugal and Ireland.

Conditions will be more difficult if market confidence in Spain and Italy continues to weaken. Spain and Italy face significant refinancing needs early next year (figure 2.6), particularly Italy, which has the third largest stock of outstanding government debt in the world. Spain and Italy will have to meet approximately €230 billion of government debt payments over 2012, including principal on maturing debt and interest on the stock of outstanding debt.

Figure 2.6
Government bond maturities and interest payments by country
(monthly)



Source: Bloomberg.

European leaders have developed a plan to resolve the crisis...

In late October the 27 leaders of the European Union (EU) – including the 17 euro area member countries – agreed to a three-part deal to address the crisis. The first element involves strengthening the European Financial Stability Facility (EFSF) to provide additional capacity to support distressed sovereigns. The EFSF will seek to leverage the remaining portion of their existing rescue funds to provide substantial additional funding to support sovereigns as required. Secondly, creditors holding Greek debt are asked to accept a 50 percent loss, or haircut, on the face value of their bonds. It is anticipated that this will reduce Greek gross government debt to 120 percent of GDP by 2020. The haircut to private bondholders is accompanied by up to €130 billion of additional financing for Greece by the EU and the IMF. Finally, a recapitalisation plan for the European banks to help shield them against sovereign debt losses has been agreed.

...but questions remain.

The terms of the recently announced deal are still being worked through at the time of writing. This includes the specific aspects of the voluntary haircuts agreed between EU leaders and banks, and the precise mechanism through which the EFSF will be leveraged.

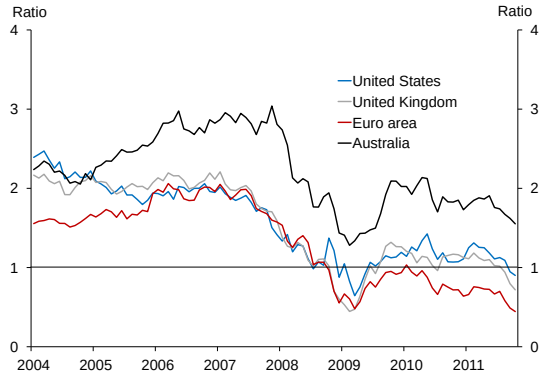
A single currency within the euro area is impeding the ability of individual member countries to achieve improved competitiveness through a real exchange rate depreciation. Under a particularly severe scenario, some members may leave the euro area. This would be disruptive as investors might fear that other countries would follow. To date policymakers in Europe have continued to express their commitment to holding the currency union together in the face of current challenges.

The European banking system is under pressure...

Concerns about the health of the European banking system have escalated. This pressure partly reflects the direct exposure of European banks to troubled sovereigns and partly the indirect consequences for the banks of weaker European growth and stressed funding markets. Investor pessimism about the future prospects of banks is illustrated by their market value falling well below the book value of equity, suggesting the market expects further substantial write-downs on bank assets (figure 2.7). These concerns are also reflected in recent downgrades to the ratings of a number of European banks.

Figure 2.7

Bank price-to-book value ratio



Source: Bloomberg.

Note: Price-to-book value ratio is market capitalisation divided by balance sheet equity.

In July, the European Banking Authority (EBA) released results of its European banking system stress tests, intended to assess the solvency of individual banks. The transparency of the tests has gone some way to informing the market of banks' positions, particularly with regards to sovereign debt exposures. Capital strengthening in response to the tests will also help reduce vulnerabilities. However, some market participants criticised the tests for their relatively benign stress scenarios. Dexia, a French-Belgian bank, performed well in the test, but is now having to be nationalised as a consequence of capital and funding difficulties.

Under the terms of the recently announced deal to resolve the European sovereign debt crisis, European banks are required to increase their Tier 1 capital ratios to 9 percent by June 2012 which will require an estimated €106 billion in additional capital. For some banks this may also involve recapitalisation through public funds. Banks have been asked to submit a plan to regulators as to how they intend to meet the agreed target.

...with funding market conditions difficult.

Concerns over bank balance sheets have reduced the willingness of banks to lend to each other in unsecured interbank markets. European LIBOR-OIS spreads (representing the premium relatively strong banks pay for short-term funding) have widened to the highest level since mid-2009. The volume of lending has also declined, and it has become particularly difficult for European banks to obtain US dollar funding. European banks require these US dollars to fund US dollar denominated assets. Short-term liquidity stress within the European banking system is compounded by the large amount of required debt refinancing – roughly €1.5 trillion over the next three years. Rolling over this maturing debt will be challenging in the current environment.

Some banks are still able to access long-term funding in international markets, even in the current stressed environment, including the Australian parents of the New Zealand subsidiaries. While Australasian banks rely on global debt markets to help fund domestic lending, they do not require US dollars to fund US dollar assets in the way European banks do. Box D in chapter 4 provides further details on how the market difficulties have affected New Zealand banks' ability to raise wholesale funding.

In early October, the European Central Bank lengthened the maturity of its lending facilities to European banks to 13 months. Banks can essentially access unlimited amounts of euro funding at fixed (penalty) interest rates against acceptable collateral for one year. To further ease liquidity pressures, swap lines between the Federal Reserve and

various European central banks have been used to alleviate the US dollar shortage of European banks.

Weaker US growth outlook gives rise to further unconventional monetary policy.

In the US, the risks of a renewed slowdown have increased. Growth was particularly subdued in the first half of 2011 – only 0.1 percent and 0.3 percent in Q1 and Q2 respectively. Consumer and business confidence have also fallen sharply.

The US household sector remains weak, with residential investment and consumption growth constrained by the erosion in collateral values from the housing market downturn, weak consumer sentiment, and tighter credit conditions. House prices continue to decline. The Case-Shiller house price (20-city composite) index fell 4.2 percent over the year to July 2011, and is now around 30 percent below the peak in April 2006.

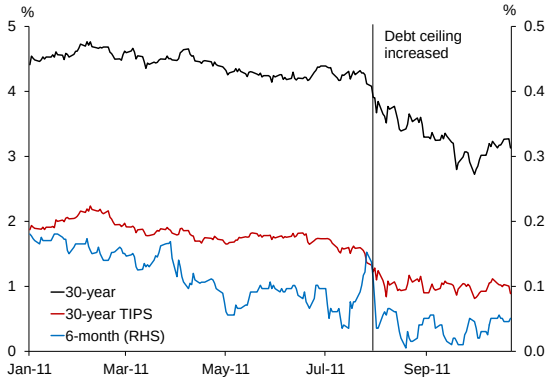
There is little scope for the Federal Reserve to respond to this renewed weakness in economic activity through conventional monetary policy, with short-term nominal interest rates near zero. Instead, unconventional policies have been employed to alleviate financial market pressure and support growth in the economy. 'Operation twist' has attempted to lower long-term interest rates to stimulate credit growth. The strategy may have contributed to lowering long-term yields slightly, but any impact on the real economy is unclear and likely to be modest. Elsewhere, the Bank of England has commenced a second round of quantitative easing in response to slowing growth in the United Kingdom and risks stemming from current global conditions.

US sovereign debt concerns exacerbated financial market volatility...

The level of US government debt approached the legislated debt ceiling during July, with widespread concern about whether a plan could be agreed to increase the ceiling to accommodate further borrowing. The political debate surrounding the debt ceiling, with a deal struck at the 11th hour, contributed to financial market volatility and a loss of confidence. Near-term Treasury bill and other money market interest rates spiked (figure 2.8), reflecting concern that repayments could potentially be delayed.

Figure 2.8

US Treasury bill and bond yields



Source: Bloomberg.

Note: TIPS are inflation-indexed bonds issued by the US Treasury.

...with the subsequent downgrade accelerating the global reassessment of risk.

Following the debt ceiling negotiations, Standard and Poor's downgraded the US long-term sovereign credit rating from AAA to AA+, citing political risks and rising government debt. The debt impasse has highlighted the political challenges the US will face in achieving debt consolidation over the medium term.

While the US sovereign rating downgrade appeared to reinforce rising global risk aversion, it did not prompt a move away from US Treasuries as some analysts had feared. Instead, investors continued to favour the liquidity of US Treasuries, suggesting that the market is still confident in the Government's ability to pay its debts. Treasury bond yields fell quite sharply following the downgrade (and are at very low levels relative to recent history), while US and global equity market volatility intensified.

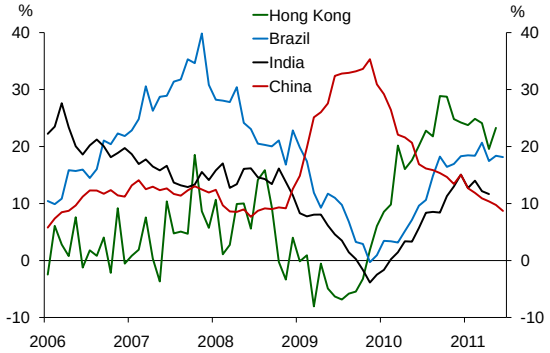
Emerging market growth could falter...

Notwithstanding strong internal demand, China and other emerging economies are vulnerable to spillovers from adverse global conditions. Credit-fuelled investment spending in China over 2009 and 2010 has led to a rapid rise in property prices. According to the IMF, property prices in China have risen 60 percent since the end of 2006.[1] While bank credit growth in China has slowed over the past year (figure 2.9), in response to regulatory constraints,

[1] **IMF (2011)** *Global Financial Stability Report*, **September.**

total private sector growth in China has been increasingly intermediated through institutions outside the formal banking system, where lending standards are lower. Most estimates suggest this 'shadow banking system' is larger than the formal banking system. The lenders that comprise this rapidly growing sector have been channelling large amounts of Chinese household savings into property development. A faltering of the property boom could reduce construction and investment activity, and create large financial losses for some institutions and investors (including households).

Figure 2.9
Real credit growth
(annual percent change)



Source: IMF *World Economic Outlook*, September 2011.
Note: Figure shows bank credit to the private sector only.

In other emerging economies, capital inflows and buoyant asset markets have also boosted credit growth and activity, leaving them exposed to reversals in investor sentiment. Because emerging economies are an important source of demand at present, a slowdown could further inhibit the global recovery. In a number of countries, monetary policy tightening has seen bank-intermediated credit growth fall. There have also been some efforts to introduce macro-prudential policy tools to target real estate market overheating (for example, in Hong Kong and South Korea). Despite efforts to tighten policy, and some reversal in capital inflows over recent months, there are still signs of overheating in some economies.

Emerging economies are particularly vulnerable to weaker global conditions due to their reliance on foreign trade. In some countries, weak export demand may encourage a shift from reliance on exports to domestic consumption and a more internally driven growth model. In the short term, however, a slowdown in emerging economies due to weaker global growth would likely reduce demand for Australian and New Zealand commodity exports.

...with flow on effects to Australia.

The Australian economy has fared relatively well over recent years, though some macroeconomic data have been weaker since the last *Report*, with a slowing housing market and falling consumer confidence. Sectoral divergence is evident. The resource sector and related industries remain buoyant due to strong commodity demand from Asia and the currently high terms of trade. Conditions are relatively less favourable for those sectors adversely affected by the high exchange rate and subdued household spending. As a consequence, Australia remains reliant on commodity export demand from faster growing Asian economies to support growth. Nevertheless, Australia appears in a relatively strong economic position compared to most other advanced economies, and that strength is helping to insulate many New Zealand exporters from the worst effects of weak global growth. In addition, Australia has more monetary and fiscal headroom to respond to weaker global growth or further market turmoil than many other advanced economies.

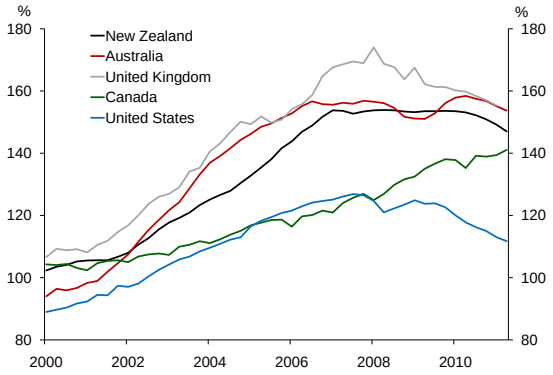
Australian household indebtedness remains high – an issue which is common to many advanced economies (figure 2.10). High debt leaves households vulnerable to slowing income growth. Australian house prices have fallen recently but are still fairly high relative to fundamentals such as household income. If economic growth were to slow materially, house prices could face a more disorderly correction, which would weaken household confidence and demand.

Australian banks appear relatively healthy in spite of recent global turmoil (see chapter 4 and figure 2.7). Like the major New Zealand banks, they have domestically focused operations that make them less exposed to the problems in Europe and the US dollar shortages facing some global banks. However, recent volatility in financial markets and concerns around the health of the global banking system have led to some tightening in funding conditions for Australian banks.

Figure 2.10

Household debt

(percent of household disposable income)



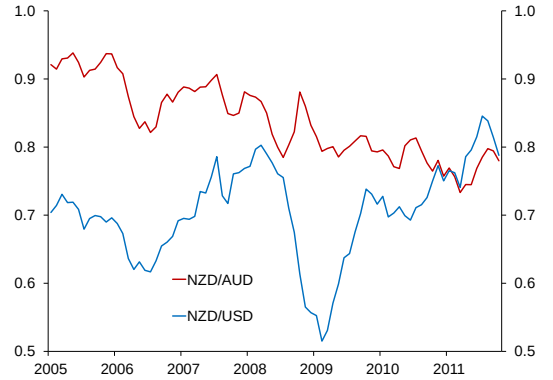
Source: Reserve Bank of Australia, Haver Analytics, RBNZ.
Note: Due to variation in definitions between sources, these series may not be strictly comparable.

Global capital flows driving movements in the currency.

The New Zealand dollar (NZD) rose to post-float highs against the US dollar in early August (figure 2.11), on the back of robust emerging market growth and strong gains in commodity prices. 'Carry' trade inflows also supported the NZD and the Australian dollar (AUD), with low US interest rates and strong risk appetite encouraging investors to borrow in US dollars and to invest in higher interest rate environments. Some emerging economies with relatively high interest rates also experienced significant carry flows (figure 2.12).

Figure 2.11

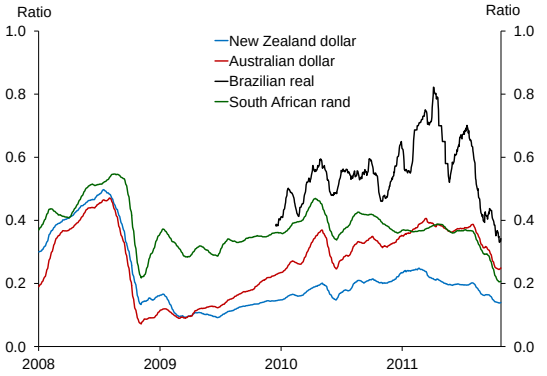
NZD exchange rates



Source: RBNZ.

Figure 2.12

Carry trade attractiveness of selected currencies



Source: Bloomberg.
Note: Defined as the one-month rolling average of the spread between three-month deposit rates for selected economies and the US divided by the implied volatility of the bilateral exchange rate.

As global risk appetite has shifted towards safe havens more recently, the NZD has depreciated against the US dollar. Carry trades have become less attractive, particularly as exchange rate volatility has increased. The cost of insuring against NZD depreciation implied by option prices has also increased, suggesting that the perceived probability of a sharp depreciation in the dollar has increased. Sharp depreciation would likely occur if global conditions deteriorate and investors seek to reduce exposure to risky positions such as carry trades on the NZD. With most of New Zealand's debt effectively denominated in domestic currency, a depreciation of the NZD would help to insulate the New Zealand economy in a global downturn scenario, and would not be expected, by itself, to create significant financial stability risks.

3 Financial risks to the New Zealand economy

Despite some encouraging trends, New Zealand's economy remains vulnerable to a further deterioration in global economic and financial market conditions. On the positive side, private sector efforts to rebuild savings have combined with a strong terms of trade to help reduce New Zealand's external indebtedness. Improved cash flows due to elevated commodity prices have eased financial stresses in the rural sector. On the negative side, New Zealand's fiscal position has deteriorated significantly, with a widening in the primary budget deficit, driven in part from costs associated with the Canterbury earthquakes. Recent downgrades to the New Zealand sovereign credit rating are likely to reduce the country's borrowing capacity at the margin.

Emerging weakness in the global economy and upheaval in the global financial system pose some risks to the New Zealand economy. Reductions in export incomes and a possible increase in offshore funding costs are two key risks. A decline in export cash flows could trigger a further decline in rural property prices and intensified financial stress in the sector.

The Canterbury earthquakes have been extremely disruptive for households and businesses. The prevalence of property insurance cover is playing a key role in mitigating the disruption, but the period ahead will remain challenging. With continued seismic instability, insurers remain very cautious about writing new cover in the region. Improved availability of insurance will be an important factor in supporting the impending rebuild in the region.

3.1 External financing vulnerabilities

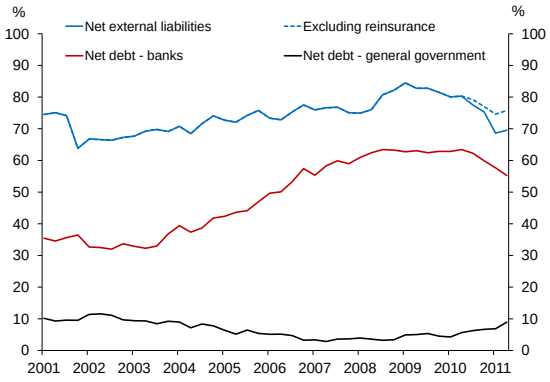
New Zealand's external debt has fallen...

The external debt of the New Zealand economy remains high by international standards, reflecting a prolonged period of low private sector savings relative to investment, prior to the global financial crisis. The majority of this external debt is intermediated via banking sector borrowing from offshore. Refinancing requirements for this debt create a significant exposure to global financial markets. A decline in net external liabilities of the banking sector has helped to moderate this exposure slightly over the past few years, although this has been partly offset by increased government borrowing from non-residents (figure 3.1). Total net external liabilities have declined significantly since 2009, from a peak of 85 percent of GDP to 70 percent in the June quarter.[1]

Figure 3.1

Net external liabilities

(percent of annual GDP)



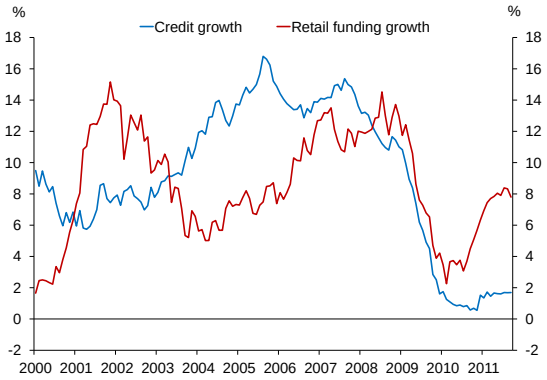
Source: Statistics New Zealand.

[1] Net external liabilities were revised down in June 2011, due to improved estimates of New Zealand residents' overseas investments. Revisions were backdated to 2001 when the net international investment position series began. Prior to the revisions, net external liabilities peaked at 90 percent of GDP in March 2009.

A major factor behind the decline in external liabilities has been the accrual of reinsurance payments related to the Canterbury earthquakes. These are likely to be largely reversed through increased spending on imports as reconstruction activity gathers pace. However, improved farm incomes and a fall in the debt appetite of the private sector have also helped to reduce external liabilities. Similar to the experience of many other advanced economies, credit growth has remained weak for the past few years, while retail deposits with the banks have been growing strongly throughout 2011 (figure 3.2), helping to reduce the banking sector's need to borrow externally.

As discussed in box B, aggregate credit-to-GDP and sectoral credit metrics can provide useful indicators of emerging domestic financial imbalances, which in turn are reflected in the external accounts. The recent weak credit growth has helped to reduce the financial imbalances accumulated over the past economic upturn, reducing the private sector's contribution to the current account deficit and net external liability position. In contrast, the net external liabilities of the Government have been rising since 2007.

Figure 3.2
Bank retail funding and credit growth
(annual percent change)

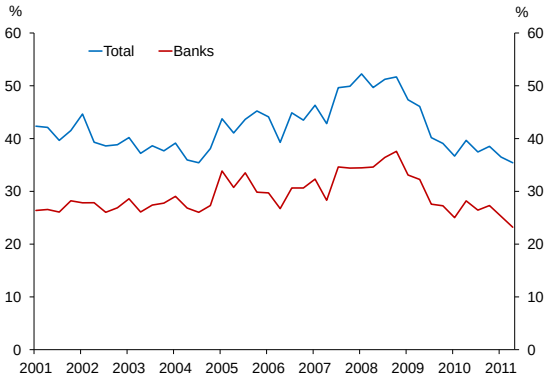


Source: RBNZ *Standard Statistical Return* (SSR).

...improving the resilience of the economy to financial market turbulence.

The recent decline in external liabilities, combined with a lengthening in the maturity of New Zealand banks' borrowing, has helped improve the resilience of the economy to further global financial market turbulence. The amount of offshore funding needing to be rolled over within 90 days has fallen significantly from a peak of just over 50 percent of GDP in 2008 to around 35 percent by June 2011 (figure 3.3). However, as discussed in box D (chapter 4), New Zealand banks continue to raise a substantial portion of their funding from offshore capital markets. This implies that, if global funding markets remain difficult, the cost of offshore funding for the New Zealand banks will eventually increase, putting upward pressure on interest rates for domestic firms and households.

Figure 3.3
Offshore debt maturing in less than 90 days
(percent of annual GDP)



Source: Statistics New Zealand.

Further debt reduction is desirable.

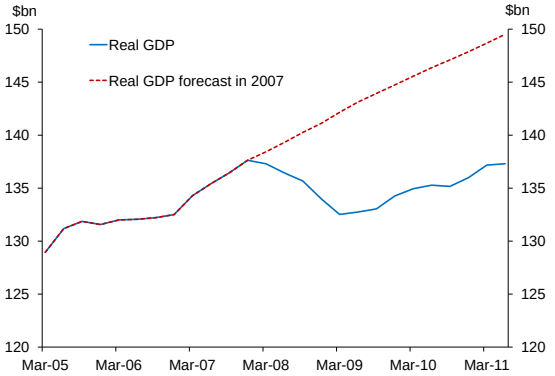
A more cautious approach to debt accumulation in the private sector would further reduce New Zealand's exposure to global financial markets over time. The fall in the private sector's contribution to the current account deficit to date has been partly driven by weak investment and could prove to be temporary as the economy recovers. However, a rapid recovery in credit growth seems unlikely in light of the recent weakness in property and asset markets, and the difficult global funding environment facing the banks.

The fall in the debt appetite of the private sector has meant a weaker recovery in the domestic economy, which has kept national income well below expectations prior to the global financial crisis (figure 3.4). This relatively muted recovery in the domestic economy could in turn make sustained debt repayment more difficult. A lower exchange rate would assist debt servicing by promoting growth in the tradables sector, boosting incomes and reducing external debt.

Figure 3.4

Real GDP

(actual versus 2007 forecast)



Source: Statistics New Zealand, RBNZ.

Note: The forecast GDP growth is taken from the December 2007 *Monetary Policy Statement*.

High levels of external debt were a key factor leading Standard and Poor's, and Fitch,to downgrade New Zealand's long-term sovereign foreign currency credit rating by one notch to AA from AA+ in September, with outlook stable. Both agencies also downgraded the long-term local currency ratings to AA+ from AAA with outlook stable. Immediately after the downgrades, long-dated interest rates increased only slightly, perhaps partly because the moves had been widely anticipated. Investor interest in New Zealand government bonds has been maintained following the downgrades. Over the longer haul, lower credit ratings are likely to increase the cost of borrowing at the margin and may also reduce the country's overall borrowing capacity, particularly if there is a widespread flight to safe haven assets in global financial markets. The downgrades underscore the importance of making progress on both external and fiscal rebalancing.

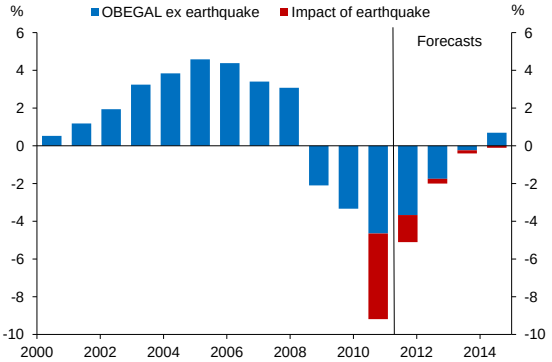
Fiscal consolidation will help moderate New Zealand's external vulnerabilities.

The Crown's financial position has deteriorated in recent years reflecting higher levels of expenditure and a reduced tax take. Along with additional fiscal costs associated with the earthquakes, this has led to a substantial widening in the operating balance in the year to June 2011 (figure 3.5). In light of the elevated risks of further disruption to global financial markets, the Reserve Bank is supportive of the Government's stated intention to return the fiscal position to surplus in coming years. A stabilisation of government debt levels would help to further moderate New Zealand's external vulnerabilities, providing some offset if the private sector's current cautious attitude to debt accumulation turns out to be temporary. Stabilisation over the medium-to-long-term would also help to increase fiscal headroom to respond to any future sharp contractions in economic growth.

Figure 3.5

Total Crown operating balance (OBEGAL)

(percent of GDP, June years)



Source: New Zealand Treasury.

3.2 Sectoral credit risks

Households continue to consolidate their financial position.

Non-performing loans in the household sector increased after 2007, but financial distress in the household sector has been remarkably low relative to the experience of some other advanced economies. In large part, this is likely to reflect the continuation of relatively low rates of unemployment compared to some countries. Most households have remained in a good position to service their debt, aided by low mortgage interest rates and an increase in disposable incomes, and have focused on consolidating their financial position (see box C). Household credit growth has been weak in the past few years, reversing substantial housing equity withdrawal evident over the 2003–06 period (figure 3.6). Slow growth in debt combined with the rise in disposable incomes has also seen a gradual reduction in debt levels relative to income.

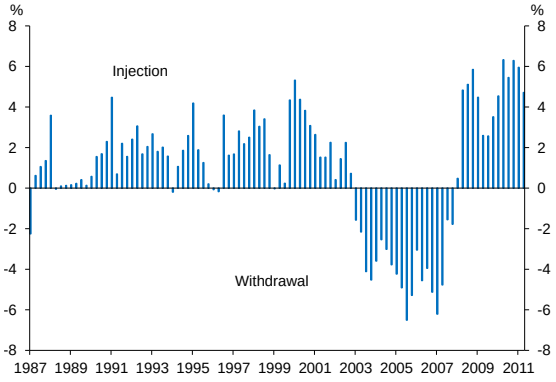
House prices have declined relative to both household incomes and rents since 2007, reflecting a gradual fall in house prices and moderate increases in both rents and

incomes. However, house prices still appear elevated on both metrics (figure 3.7). Muted borrowing and increased principal repayments are likely to have improved the overall financial position of some households over the past three years. Nevertheless, a sharp fall in house prices, combined with a decline in incomes or rise in interest rates, remains a key risk to household balance sheets, particularly given that household leverage against housing assets remains elevated relative to historical experience.

Figure 3.6

Housing equity injection

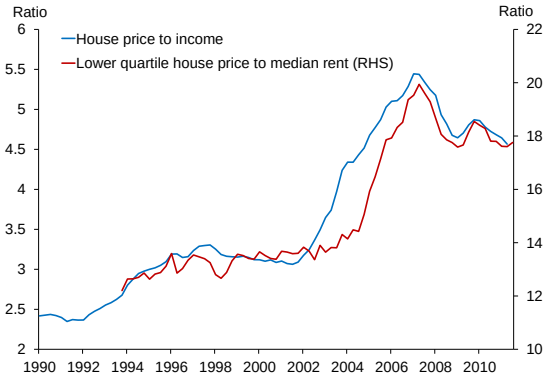
(percent of household disposable income)



Source: Statistics New Zealand, RBNZ calculations.

Figure 3.7

House prices relative to fundamental indicators



Source: Quotable Value Ltd, RBNZ, Statistics New Zealand, Ministry of Housing.

Insurance has reduced household financial stress from the Canterbury earthquakes.

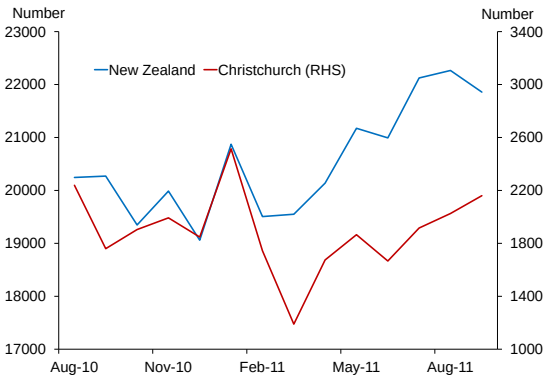
Despite disruptions to trading activity and widespread damage to properties in the wake of the Canterbury earthquakes, the extent of financial stress among households in the region has been contained. While individual household circumstances are subject to considerable variability, the prevalence of property insurance for residential housing is providing an important buffer for most households. Support packages instituted by the banks have also provided assistance to households and firms facing temporary difficulties servicing loans.

The Christchurch property market has continued to function following the earthquakes. Transactions have continued despite widespread damage to properties, but at a slower pace than in the rest of the country (figure 3.8). Insurers understandably remain cautious in writing new cover on properties in the region, due to continuing aftershocks, pre-existing damage and uncertainties around the availability and price of reinsurance. In general, existing insurance cover is being maintained – including through the transfer of existing policies to new home owners. Earthquake cover in Christchurch for new or previously uninsured buildings is currently only available in limited circumstances, and some insurers are considering whether to continue providing earthquake cover at all. Ansvar (a niche insurer specialising in insuring churches and heritage buildings) has announced a withdrawal from earthquake cover in New Zealand. Zurich has announced that earthquake cover will, in future, only be provided in Northland, Auckland and the Waikato. Existing Christchurch customers of Ansvar and Zurich may, in the short term, find it difficult or impossible to replace their earthquake insurance cover.

Figure 3.8

Mortgage approvals in the Christchurch region

(seasonally adjusted approvals per month)



Source: RBNZ.

Box B

Assessing financial vulnerabilities – the role of macro-prudential indicators

In the wake of the financial crisis, a growing body of international research has investigated the scope for using prudential tools to mitigate the effects of 'excessive' credit growth, either by building additional buffers in the banking system, or by leaning directly against the credit cycle. The provision of credit plays a vital role in facilitating economic growth, but excessive accumulation of debt by households and firms can create financial vulnerability if the ability to service this debt becomes undermined. Rapid or excessive credit growth may also be associated with a misallocation of resources across the economy, particularly if risk becomes underpriced or asset price expectations are unrealistic.

The various instruments or tools that might be used to address the build up in financial imbalances – so-called 'macro-prudential' tools – have been discussed in past *Reports* (see also chapter 6). However, using any particular tool requires an assessment of when credit growth is excessive or when financial imbalances are building. This assessment requires judgement, but international analysis suggests some simple indicators may be quite effective at identifying periods of excessive private sector credit growth. In particular, work by a number of authors suggests that when the credit-to-GDP ratio moves substantially above trend (calculated using statistical techniques), there is a heightened risk of a financial crisis within the next three years.[2]

While 'detrended' credit-to-GDP (the credit-to-GDP gap in figure B2 opposite) is a useful indicator, analysis both internationally and within the Reserve Bank suggests there is value in looking at a broad range of other variables. For example, if credit has leapt well above trend but remains low relative to a longer history and/or international benchmarks, there may be reasons to be less concerned. This argument implies there is value in looking at the level of the credit-to-GDP ratio (figure B1) as well as the detrended 'gap'. A view on what a sustainable level of credit might be can also help to discern periods of emerging financial vulnerabilities.

Additionally, examining credit growth rates relative to economic growth can provide a simple guide as to whether the accumulation of credit is becoming problematic (figure B3). Rates of growth in credit well in excess of nominal income growth are more likely to be associated with damaging asset price cycles. Measures of asset price deviations from trend (such as the detrended house price-to-income ratio) can also provide evidence of whether a credit boom is related to unsustainable valuations in asset markets (increasing the risk that the credit growth is 'excessive').

Macro-prudential policy will ultimately require policymaker judgement, but these indicators provide a useful starting point for discussion. The Reserve Bank has started to formally monitor these sorts of indicators (both for the economy as a whole, and for sectors such as households and the farming sector) with a quarterly internal report used to inform a committee discussion of possible credit imbalances. Some of these indicators have appeared in past *Reports*, where discussion has focused on the sustainability of credit trends.

The panel chart illustrates a selection of these measures for the economy as a whole. Some conclusions that can be drawn include:

- The credit-to-GDP ratio (figure B1) has trended up throughout the period, and credit was growing sharply between 2005 and 2008. The house price-to-disposable income ratio (figure B4) also moved sharply above trend (as did farm and equity prices relative to suitable income measures). These factors would have reinforced the signal provided by the credit-to-GDP gap.
- The credit-to-GDP gap (figure B2) clearly signalled excessive credit growth from around 2005 to 2008, with no other strong signals in the historical sample. This seems like a satisfactory signal. Although New Zealand did not experience a systemic banking crisis,

[2] See for example, Borio, C and M Drehmann (2009) "Assessing the Risk of Banking Crises – Revisited", BIS *Quarterly Review*, March, pp. 29-46.

Figure B1

Credit-to-GDP ratio

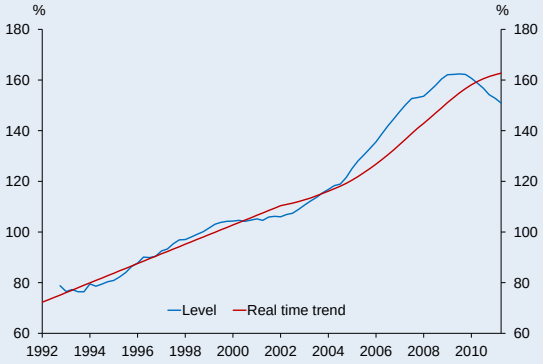


Figure B2

Credit-to-GDP gap

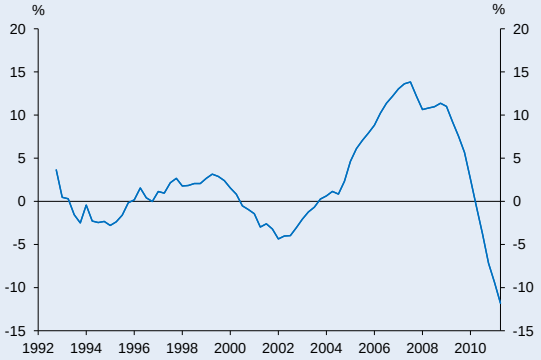


Figure B3

Credit growth minus GDP growth

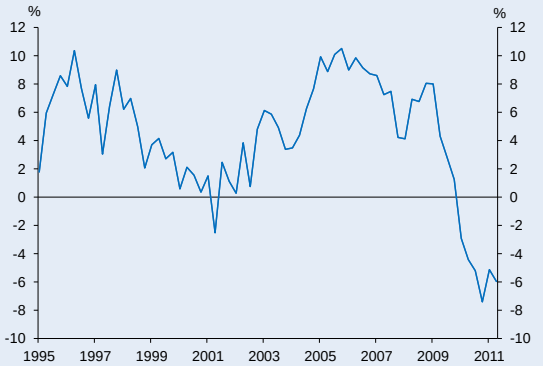
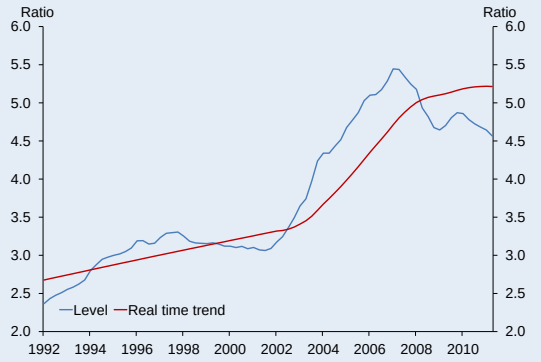


Figure B4

House price-to-disposable income ratio



Source: Property IQ, Statistics New Zealand, RBNZ.
Note: Real-time trends are calculated at each point using only data prior to that date.

banks did experience a material decline in asset quality and profitability as economic activity slowed and asset prices declined. In addition, there were a large number of finance company failures. In hindsight, macro-prudential tightening in the 2005–08 period would have probably moved prudential settings in the right direction.

- With credit growth much slower than economic growth over the past couple of years (figure B3), the credit-to-GDP gap has rapidly fallen. Asset prices have also declined (especially after detrending and when measured relative to income). The indicators clearly suggest that there is no current justification for a cyclical tightening in macro-prudential settings.
- However, this does not imply that the overall level of indebtedness of the economy (figure B1) is no longer a concern. As discussed in this chapter and previous *Reports*, New Zealand households in particular remain highly leveraged on a cross-country basis despite recent improvements in their balance sheet position, and therefore vulnerable to any shock to their debt-servicing ability.

A rising credit-to-GDP trend as indicated in figure B1, is sometimes referred to as financial deepening, a phenomenon which has been observed in most advanced economies since financial deregulation in the 1980s. Statistical trend measures have a natural tendency to extrapolate this rising ratio into the future, and this is partly why the credit-to-GDP gap is currently negative (figure B2). However, it is possible that financial deepening in advanced economies will be much slower or non-existent in the future. Policymakers will need to make sound judgements about whether there has been a structural change in the trend of credit relative to GDP.

Box C

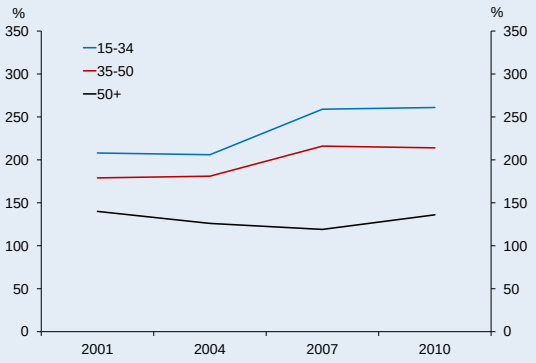
Financial vulnerability of owner-occupied mortgage debt

Mortgage debt increased significantly in the years prior to 2007. As house prices climbed rapidly, younger homeowners trading up or entering the property market took on more debt (figure C1). Relatively easy lending conditions meant some households entered the market with small deposits or increased their mortgages on the back of rising house prices. However, the economy and housing market have weakened materially since 2007 and, at the aggregate level, growth in household borrowing has slowed. In light of these changes, this box uses information from the 2010 Household Economic Survey (HES) to re-examine the financial vulnerability of the owner-occupied portion of mortgage debt.[3]

Figure C1

Median ratio of housing debt to disposable income by age group

(June years)



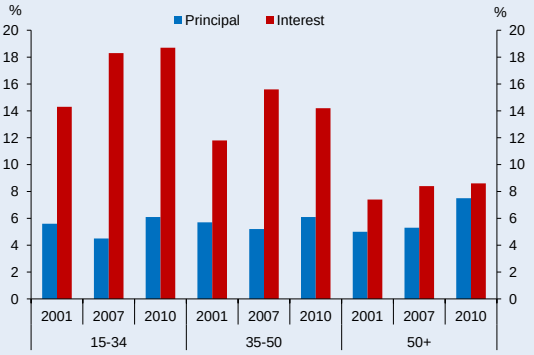
Source: Statistics New Zealand, RBNZ calculations.
Notes: The age of the household is defined using the age of the reference person filling out the survey. Households that do not hold mortgage debt are not included in the calculation.

Rising debt levels led to an increase in mortgage interest payments as a ratio to disposable income between 2001 and 2007. Between 2007 and 2010, the debt servicing capacity of indebted households was bolstered by a 10 percent increase in disposable incomes, a slower rate of increase in debt levels, and a 100 basis point fall in median mortgage interest rates.[4] While interest servicing as a share of disposable income remained constant or declined across age groups, scheduled principal payments increased (figure C2). This was partly due to the fall in interest rates, which under a standard mortgage contract increase principal repayments in the first half of the mortgage term. Another factor was the ageing of the mortgage stock as turnover in the housing market has slowed since 2007.[5]

Figure C2

Median ratio of debt payments to household disposable income by age

(June years)



Source: Statistics New Zealand, RBNZ calculations.
Notes: The age of the household is defined using the age of the reference person filling out the survey. Households that do not hold mortgage debt are not included in the calculation.

The rapid increase in house prices between 2001 and 2007 resulted in a decline in the median loan-to-value ratio (LVR), in spite of rapid growth in household debt over this period. In contrast, the fall in house prices since 2007 has increased household leverage – the median LVR increased from 38 to 42 percent, although this remains

[3] Earlier work using the HES is summarised in Kida, M (2009) "Financial vulnerability of mortgage-indebted households in New Zealand – evidence from the HES", Reserve Bank of New Zealand *Bulletin*, 72(1), pp 5-12. It is important to recognise that the HES is not designed specifically for collecting information on household balance sheets and has a number of limitations. The dataset only covers owner-occupied mortgage debt extensively, and some important series (such as current mortgage debt and housing values) need to be imputed.

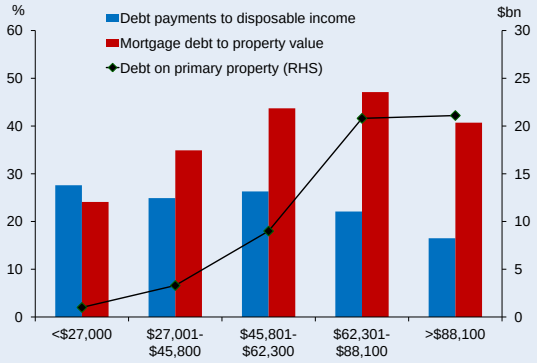
[4] Work by Statistics New Zealand making use of the 2008 and 2009 surveys shows that average weekly mortgage interest payments increased between 2007 and 2008, before declining thereafter.

[5] The average number of years since loan origination increased to 3.7 in the 2010 survey, from 2.8 years in 2007.

below the 54 percent ratio in 2001. The rise in leverage has been fairly muted due to the gradual adjustment in nominal house prices, which fell by 10 percent from peak to trough and have remained broadly stable since mid 2009.

Households with high LVR ratios are potentially vulnerable to falling house prices, as the property value may fall below or near to the value of the mortgage. However, these households tend to have relatively high incomes and strong cash flow (figure C3). The proportion of households with LVR ratios above 80 percent and also debt servicing ratios above 50 percent has remained low at about 1 percent. In conjunction with the relatively muted deterioration in house prices and employment (among mortgaged households), the small proportion of households with both high leverage and weak cash flow helps explain why non-performing mortgage loans have remained contained at around 1 percent recently.

Figure C3
Median debt payments, LVR ratio and mortgage debt by income quintile



Source: Statistics New Zealand, RBNZ calculations.
Notes: The horizontal axis shows the disposable income band for each quintile from the 2010 HES. Household debt is estimated from HES data, which are not designed to measure economy wide debt and do not include debt on rentals or second homes. Consequently, it is significantly lower than aggregate residential credit data published by the Reserve Bank.

The vulnerability of the household sector to a further slowdown in the economy appears to have declined slightly over the past few years. As noted above, existing mortgage holders have increased scheduled principal repayments, and some households may have taken advantage of lower interest rates to make more principal repayments ahead of schedule.[6] Banks have also tightened lending standards for new mortgages, so that new entrants into the housing market have materially higher incomes than in 2007.[7]

However, in many ways the economic environment of the past three years has not provided a true test of household balance sheets. Debt-to-income ratios remain at historically high levels and house prices, although they have declined relative to incomes, still seem somewhat over-valued. A significant decline in house prices, particularly if coupled with a rise in unemployment or interest rates, would be likely to create larger credit losses for the New Zealand banking system than seen in recent years.

6 Anecdotal reports from banks suggest that this has become more common recently. The median savings rate increased by around 5 percentage points among mortgaged households in the 2010 survey, suggesting that some households may have had sufficient cash flow to make payments ahead of schedule.

7 Households under 35 years old, with a LVR ratio at origination greater than 80 percent, and with a mortgage originated in the two years prior to the 2010 survey, had a median disposable income of $81,000 compared to $59,000 in the 2007 survey.

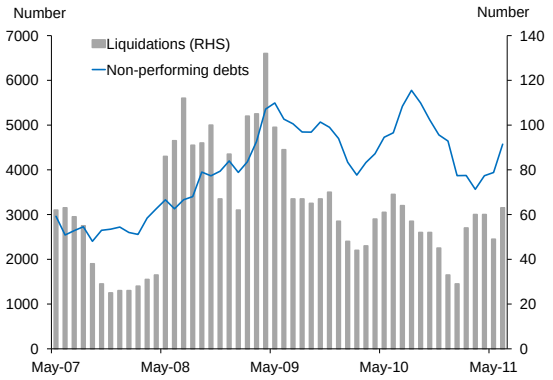
Business activity remains muted...

Business activity has recovered since the last *Report*, with the disruptive impact of the earthquakes on business activity proving reasonably localised. However, real GDP remains below 2007 levels, and the number of business defaults has been climbing again in recent months (figure 3.9). The recovery in activity has been notably weak in sectors linked to household spending and the housing market, including retail and construction (figure 3.10). Although earthquake-related construction will underpin construction demand in the medium term, to date the rise in activity has been limited and further delays to the rebuild could present difficulties for some firms.

Figure 3.9

Number of non-performing business debts and company liquidations

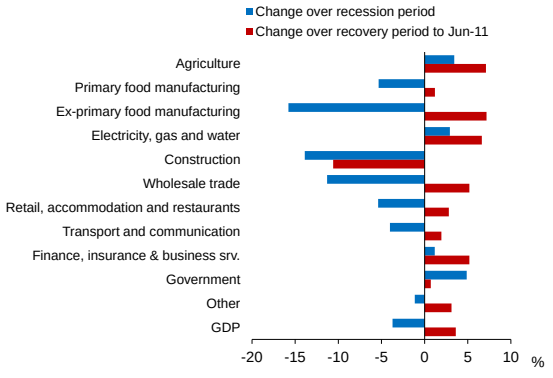
(three-month totals)



Source: Veda Advantage, Ministry of Economic Development.

Figure 3.10

Components of real production GDP



Source: Statistics New Zealand.

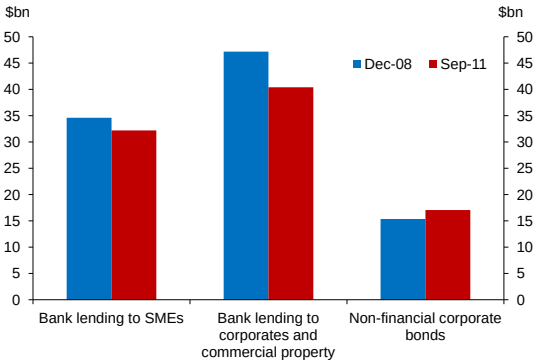
Note: The recession period is from the cyclical peak in GDP in 2007Q4 to the trough in 2009Q1. The recovery period is from the trough to 2011Q2.

...and smaller firms are particularly vulnerable.

Despite some recovery in business confidence, investment spending and business borrowing remain weak. There is a risk that further global financial market turbulence could prolong this weakness. A tightening in bank credit supply would fall hardest on small-to-medium enterprises (SMEs), which are the most reliant on intermediated credit and have experienced a relatively weak recovery in profitability to date. In contrast, some larger corporate firms are able to issue debt directly in capital markets, which has provided a buffer over the past few years as the supply of intermediated credit has tightened (figure 3.11). Non-financial corporates have continued to issue debt over the past few months in spite of financial market volatility, although issuance has slowed during 2011.

Figure 3.11

Debt of SME and non-financial corporate firms



Source: Private prudential returns, Bloomberg.

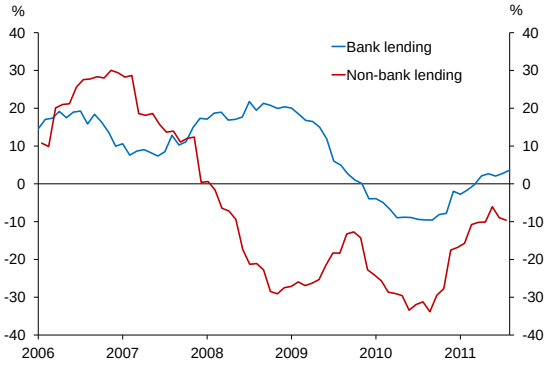
There are some signs of life in the commercial property sector.

Delinquencies in the commercial property sector have increased significantly over the past few years, due to declining capital values and rising vacancy rates, particularly in the office and retail sectors. In response to declining asset prices, many owners have chosen to reduce leverage and lenders have also reassessed risk in the sector. Consequently, borrowing has fallen significantly, particularly for firms that depended on the shrinking non-bank lending sector.

There are some signs that the commercial property sector has stabilised. Bank lending has increased modestly over the past year (figure 3.12). Property prices have stabilised while rents have been maintained at reasonable levels. Market activity has picked up from its trough, although increased

sales have so far been concentrated in high value buildings – typically involving buyers with a large buffer of equity. Finally, a small number of high value retail property developments are either under way or have recently been announced.

Figure 3.12
Business lending related to property
(annual percent change)



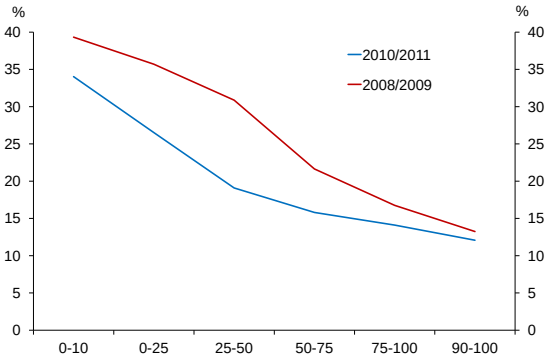
Source: RBNZ SSR.

The Canterbury earthquakes have caused major displacements for commercial property owners in the region. Most of the CBD office space has been closed. With the reduced supply of retail and office space, rents for retail space on the western side of the city have increased while vacancy rates in suburban office developments have declined markedly. Some owners holding damaged properties may have come under increased financial pressure following the one year anniversary of the September 2010 earthquake, when many insurance contracts covering lost rental payments expired.

Financial stress among farmers has declined...

At the height of the global financial crisis, a number of highly indebted farms were under financial stress due to weak dairy and meat prices. However, a significant rise in incomes as commodity prices recovered, coupled with lower interest rates, have helped to relieve cash flow pressures. The improvement has been clearly evident in the dairy sector, where the debt servicing ratios of the most vulnerable farms have declined significantly (figure 3.13). As a consequence, rural delinquencies have started to fall during the past few months.

Figure 3.13
Interest payments of dairy farms by profitability percentile
(percent of milk solids revenue)

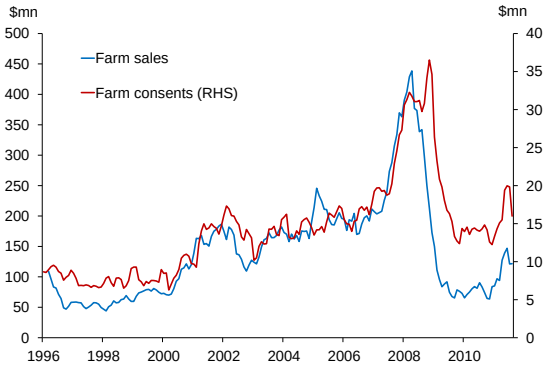


Source: Ministry of Agriculture and Forestry national dairy model.

...and farmers remain focused on paying down debt...

As farm incomes have improved, farm sales and building consents have both picked up recently from their troughs (figure 3.14). However, farmers and banks have remained cautious following volatile incomes in recent years, and rising agricultural incomes have been used by many farmers to reduce debt. Current buyers in the farm market tend to have a large buffer of equity, partly driven by tighter bank lending standards. Overall, agricultural credit growth has been running close to zero which, combined with the rise in incomes, has led to a fall in debt relative to agricultural export incomes over the past year (figure 3.15).

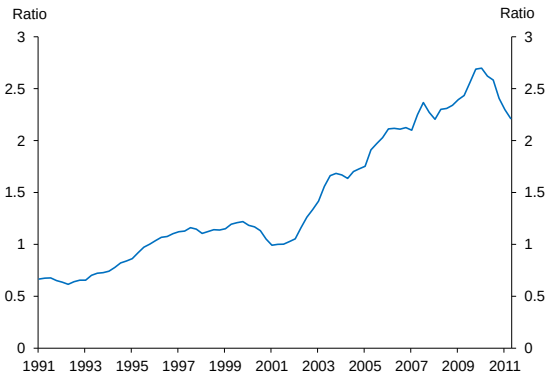
Figure 3.14
Value of farm sales and consents
(three-month average)



Source: REINZ, Statistics New Zealand.

Figure 3.15

Agricultural debt to agricultural export earnings



Source: RBNZ SSR, Statistics New Zealand.

...but leveraged farmers remain at risk.

Debt levels in the agricultural sector remain elevated despite the recent improvement in the debt-to-export earnings ratio. The distribution of debt is also skewed, particularly in the dairy sector, towards a small number of highly leveraged farms. Those indebted farms could face renewed cash flow problems if there were a sharp and sustained fall in commodity prices or a marked rise in interest rates.[8] Servicing problems for these farmers could also be amplified by a further fall in farm prices. Farm prices are particularly vulnerable to a further fall in incomes because prices remain elevated relative to export earnings and liquidity in the market is low. Encouragingly, New Zealand's export commodity prices have eased by less than broader global commodity price indices over the past few months.

[8] See Hargreaves, D and G Williamson (2011) "Stress testing New Zealand banks' dairy portfolios", Reserve Bank of New Zealand *Bulletin*, 74(2), pp. 15-25.

4 New Zealand's financial institutions

The New Zealand banking system remains in a sound financial position. The level of non-performing loans has started to decline, after peaking at 2.1 percent of total lending in the early part of this year. This improvement in asset quality, along with higher net interest margins, has seen profitability improve from lows experienced over 2008–09.

Conditions in offshore markets in which New Zealand banks obtain funding have deteriorated over recent months (see box D). However, both capital and funding buffers have materially improved over the past three years. In particular, banks have made considerable progress in lengthening the maturity profile of their wholesale funding and increasing the share of retail funding. As such, the New Zealand banking system is now better placed to weather any fallout from global volatility than it was at the onset of the global financial crisis. Should market conditions deteriorate further, the Reserve Bank has the capacity to provide temporary funding to the banking system through its liquidity facilities.

The non-bank sector is continuing to consolidate. However, some parts of the sector have proven relatively robust, most notably the consumer finance, credit union and traditional building society sectors.

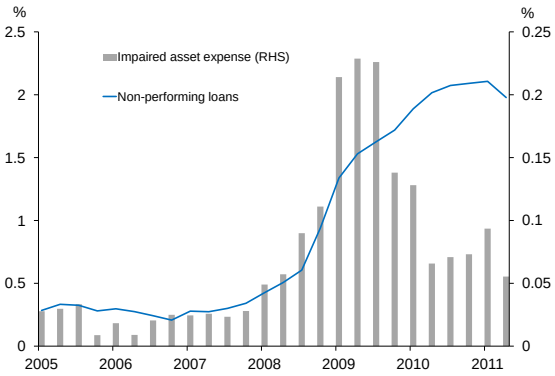
The insurance sector has faced a challenging environment with the series of earthquakes in the Canterbury region. The complexity of the earthquake claims settlement process in the face of ongoing aftershocks means that there is considerable uncertainty about the timing of claims settlements – a factor delaying reconstruction in the region. In response to earthquake losses and increased reinsurance costs, premiums for non-life insurance have started to rise, while insurers have tightened some of the terms on which coverage is offered – such as requiring much higher excesses for some risks.

4.1 Banking sector

The level of non-performing loans has started to decline...

Following a rise in non-performing loans over the past three years, asset quality in the New Zealand banking system has recently shown signs of improvement (figure 4.1). Non-performing loans peaked at 2.1 percent of gross lending in the March 2011 quarter, which is low compared to banks' experience during the early 1990s recession and to many advanced economies during the global financial crisis. Since March there has been a modest fall in non-performing loans, with impaired asset expenses well below 2009 levels.

Figure 4.1
New Zealand bank asset quality and impaired asset expense
(percent of lending)



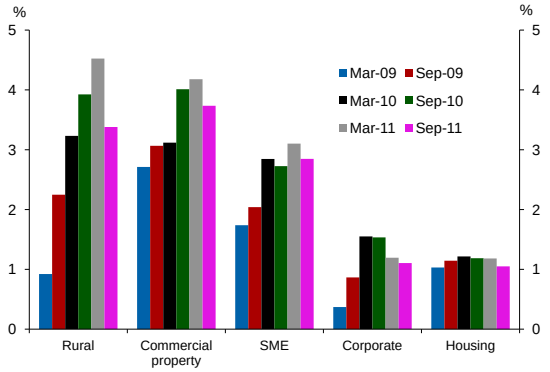
Source: *General Disclosure Statements* (GDS).

Banks report that the Canterbury earthquakes have had a relatively small effect on aggregate asset quality. Three of the major banks commented on their earthquake provisioning in their results for the half-year to March 2011, and those banks have made total additional provisions of about $125 million – well under 0.1 percent of their total lending. However, there remains a great deal of uncertainly in quantifying the effects of the earthquakes, and these estimates will inevitably be subject to change as the insurance climate and other uncertainties become clearer.

...led by improvements in the rural sector.

Weak economic activity and declines in asset values led to increases in non-performing loans for all major lending classes in recent years. Non-performing loans have been relatively high since 2009 in the rural and commercial property sectors, reflecting large falls in asset prices, high leverage, and particularly in the case of the dairy sector, periods of weak cash flow. Conditions in the rural sector have improved materially over the past 12 months, with strong commodity prices supporting record Fonterra dairy payouts and a stabilisation in the rural land market. Rural non-performing loans have fallen, through a combination of farms returning to a more secure financial footing, slightly higher farm sales volumes allowing heavily indebted farmers to sell operations and to pay down debt, and write-offs of previously non-performing debt. Other classes of lending have seen modest improvements in asset quality in recent months (figure 4.2).

Figure 4.2
Sectoral non-performing loans
(percent of sectoral lending)



Source: Based on private reporting data from eight registered banks.
Note: Includes impaired and 90-day past due assets. Data are not standardised and definitions may vary across banks.

With commodity prices remaining supportive and property markets stabilising, it is likely that asset quality will continue to improve in the near term. Indeed, the banks' own internal schedules of loans that have the potential to become non-performing (commonly known as watchlist loans) have continued to decline in recent months. Nevertheless, conditions remain difficult for many borrowers – particularly smaller businesses – and problem loan levels will take time to revert to pre-crisis levels. As discussed in chapters 2 and 3, global developments pose a significant risk to a continued domestic recovery.

New Zealand banks have minimal asset exposure to Europe.

The major New Zealand banks report no direct exposure to the sovereign debt of any European nation. Furthermore, New Zealand banks have very little in the way of lending or asset exposures to European borrowers. However, if turmoil in Europe leads to large declines in commodity prices or weakness in the domestic economy, a further round of asset quality deterioration could be expected.

Bank profitability has improved.

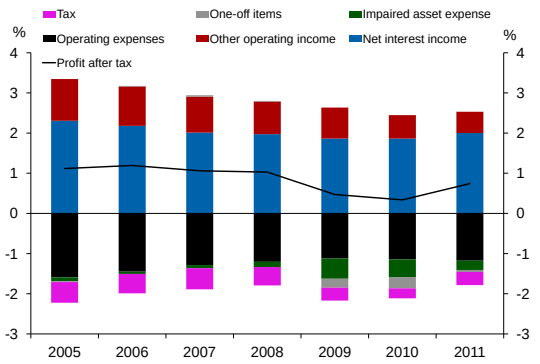
The improvement in asset quality, along with higher net interest margins, has underpinned an improvement in bank profitability since late 2009 (figure 4.3). Despite this improvement, profitability remains well below rates sustained in the pre-crisis period. Weaker profitability reflects continued cyclical weakness in the economy, with impaired asset expenses still above historical averages, and weak credit growth reducing the amount of fee income that banks can generate from writing new loans.

It is unlikely that bank profitability will fully recover to pre-crisis levels that were driven by unsustainable growth in credit. In an environment of lower credit growth, banks are likely to increasingly focus on containing costs to generate profit growth. While this is clearly appropriate in an environment of lower asset growth, it will be important that banks do not cut costs to an extent that exposes them to greater operational risks.

Figure 4.3

New Zealand bank profitability

(percent of assets, June years)

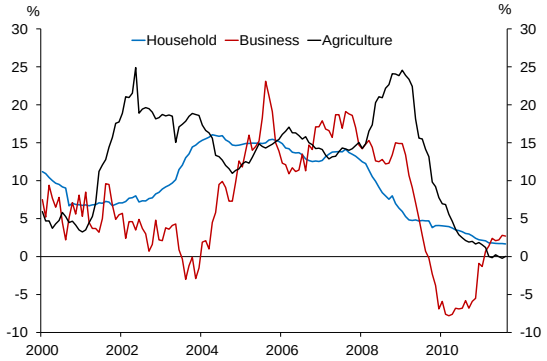


Source: GDS.

Figure 4.4

Registered bank lending by sector

(annual percent change)



Source: RBNZ SSR.

Bank lending growth has been low, driven largely by subdued demand.

Aggregate bank lending has remained broadly unchanged since early 2010 (figure 4.4). Bank lending to the business sector declined by 10 percent from the start of 2009 to the middle of 2010, as large corporate borrowers increasingly looked to borrow directly from capital markets. Business sector lending has stabilised over the past 12 months. More generally, firms remain cautious and unwilling to fund an expansion of their operations with debt despite an improvement in business sentiment. Agricultural sector lending continued to grow rapidly until late 2009, as unexpectedly low Fonterra dairy payouts led to greater demand for cash flow facilities. However, lending to this sector has since slowed as higher commodity returns over the past season have provided farmers with scope to reduce debt levels and put their operations on a more secure footing.

Household credit growth has gradually fallen to very low levels, reflecting low housing turnover and a reduced appetite for debt. The fact that weak credit growth has been accompanied by rising retail deposits in the banking sector is consistent with general caution on the part of households (see figure 3.2).

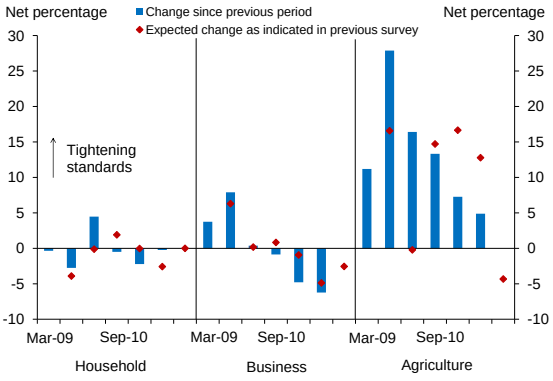
Lending standards remain tighter than before the crisis.

Lending standards are somewhat tighter now than they were in the period leading up to the global financial crisis. In particular, agricultural sector lending standards have tightened following high impairments over recent years (figure 4.5). While higher standards may partly relate to higher capital requirements on rural lending that were introduced on 30 June 2011, they largely reflect banks' own attitudes to rural lending following rising loan losses. Business lending standards also appear to be somewhat tighter than prior to the crisis, particularly for the SME sector. However, banks report that they have eased lending standards for businesses recently. Mortgage brokers report standards for housing lending are tighter than before the crisis. While banks are still willing to lend up to 95 percent of a property's value, they now apply stricter income servicing criteria than several years ago, and have also tightened standards for investment property lending.

Changes in lending standards do not appear to be large enough to explain the magnitude of the reduction in credit growth. It is therefore likely that weak demand for credit, as explained above, has been the largest contributor to the reduction in credit growth.

Figure 4.5

Change in New Zealand bank lending standards



Source: RBNZ *Credit Conditions Survey*.

Note: Net percentage is the percentage of respondents reporting a tightening of lending standards over the past six months, minus the percentage of respondents reporting a loosening of lending standards. Individual bank responses are weighted by market share.

The credit ratings of the major New Zealand banks have been downgraded by Moody's.

The credit rating agency Moody's downgraded the credit ratings of all four major New Zealand banks by one notch to AA3 from AA2 in May, citing concern over their reliance on wholesale funding sources. This downgrade appeared to have been largely expected by the market, and there were no discernable impacts on bank funding costs. However, a further downgrade to the single A range would likely result in some increase in funding costs, and would also make it more difficult for banks to gain a AAA credit rating on their covered bonds.[1] These downgrades to the New Zealand bank credit ratings have occurred in conjunction with downgrades to a large number of global banks. Even after these downgrades, the New Zealand banking system remains among the most highly rated in the world.

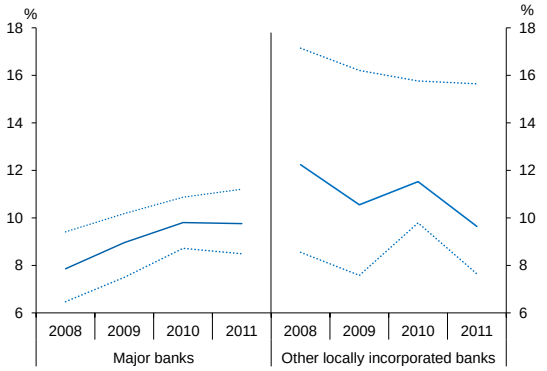
Bank capital levels remain strong...

The New Zealand banking system remains well capitalised. All major banks hold capital in excess of the proposed Basel III Tier 1 minimum of 8.5 percent. Locally incorporated banks have increased Tier 1 capital ratios from an average of around 8 percent of risk-weighted exposures in 2007 to around 10 percent currently. As such, the New Zealand banking system is well placed should global risks materialise and put pressure on local banks' asset quality.

Figure 4.6

New Zealand bank Tier 1 capital ratios

(as at 30 June, weighted average and range)



Source: GDS.

Note: 'Major' banks refer to the New Zealand subsidiaries of the four major Australian banks.

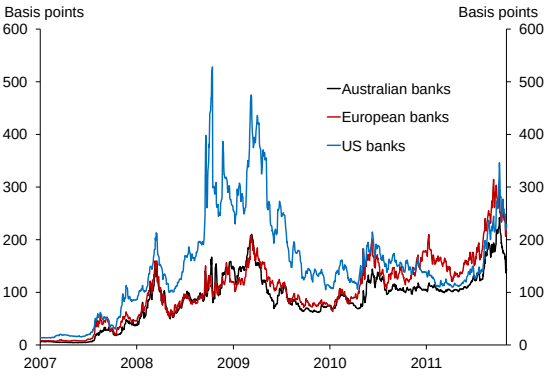
The Australian parents of the major New Zealand banks remain in a strong financial position and retain the ability to support their New Zealand subsidiaries should the need arise. The Australian parent banks have recently had their credit ratings downgraded by Moody's by one notch to AA2. Nevertheless, the share prices of the Australian banks have not exhibited the same degree of weakness as international peers, nor have their credit default swap spreads increased to the same level (figure 4.7).[2] This relative strength reflects the Australian banking system's low direct exposure to Europe, strong capital levels, and the resilience of the Australian economy.

[1] Rating agencies set a floor on the minimum credit rating a bank can hold while still attaining a AAA covered bond rating. Rating agencies will also require banks to pledge more collateral to attain a AAA covered bond rating as their own rating drops.

[2] The increase in Australian bank CDS spreads is also likely to overstate the underlying default risk of the banking system due to factors such as illiquidity in this market. This is reflected in the current divergence between Australian CDS premia and the cost of issuing Australian bank debt. See the recent speech by RBA Assistant Governor Guy Debelle on Australian bank funding, available at http://www.rba.gov.au/speeches/2011/sp-ag-191011.html

Figure 4.7

Bank CDS spreads

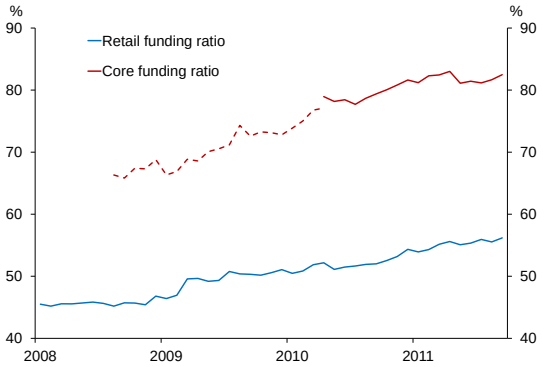


Source: Bloomberg.

Note: Australian banks comprise the four largest banks. US banks comprise the eight largest US banks. The European banks index represents large European financial firms.

Figure 4.8

Core funding ratio and retail funding ratio



Source: RBNZ SSR, private reporting, RBNZ liquidity policy returns.

Note: Weighted average of seven locally incorporated banks. The dotted section of the core funding ratio line is calculated from the four largest banks.

...and banks have continued to improve their funding positions.

In the near term, the reliance of the New Zealand banking system on international financing remains the key channel through which New Zealand could be affected by European sovereign difficulties (see box D). The introduction of the core funding ratio, as well as banks' own determination to reduce reliance on short-term wholesale funding, have resulted in a material improvement in funding positions over the past two years (figure 4.8). All banks have stable funding well in excess of the new core funding ratio minimum of 70 percent that came into force on 1 July 2011. Initially the improvement in core funding was achieved by extending the tenor of wholesale funding, mainly by replacing short-term commercial paper funding with longer-term bond issues.

More recently, banks have seen a surge in retail funding (see figure 3.2, chapter 3). Higher household and business deposits are likely to reflect a combination of increased saving, a re-allocation away from riskier asset holdings and competitive retail deposit rates. Part of the increase could also be due to more temporary factors, such as insurance payouts from the Canterbury earthquakes that are yet to be spent, and Crown payments to depositors in failed finance companies under the retail deposit guarantee scheme (most notably South Canterbury Finance).

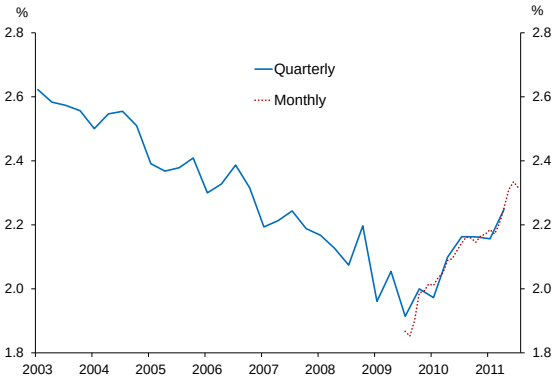
Net interest margins have been rising...

Net interest margins have continued to increase from the lows that were reached in the middle of 2009 (figure 4.9). Net interest margins have been trending down since 2003 with greater market competition, but were driven to particularly low levels in 2009 as bank funding costs rose. Since a large proportion of bank lending was at fixed interest rates, it took some time for the higher funding spreads to be reflected in banks' average lending rates. Over the past two years banks have been able to progressively re-price loans as they have switched from fixed to floating rates, allowing them to return net interest margins to around the level that was prevailing immediately prior to the global financial crisis. An increase in lending margins on business and rural loans has also contributed to the recent rise.

Figure 4.9

New Zealand retail banks' net interest margins

(three-month average)



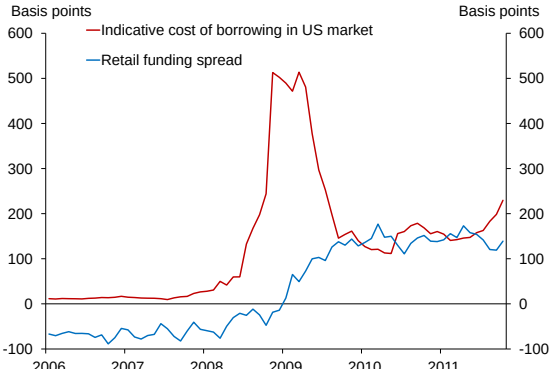
Source: GDS, RBNZ *Net Interest Margin Survey*.

...but bank funding costs are likely to rise.

A recent fall in retail deposit spreads has contributed to the improvement in net interest margins (figure 4.10). This fall likely reflects strong supply of retail deposits at a time of relatively weak demand for funds from banks, allowing banks to bid less vigorously for deposits. Since banks have not had to raise much new term wholesale funding recently, the reduction in retail funding spreads has lowered the overall cost of funds for the banking system (relative to benchmark rates). However, this reduction may be short-lived, as greater funding needs will force banks to return to wholesale funding markets where funding costs have increased (see box D). In turn, greater funding needs are likely to see a resumption of competition for retail deposits as a substitute form of core funding with consequent upward pressure on funding spreads.

Figure 4.10

Retail funding spreads and long-term wholesale funding costs for New Zealand banks



Source: Bloomberg, RBNZ calculations.

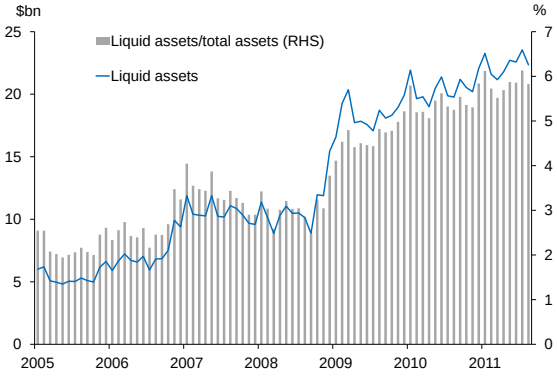
Note: Indicative cost of US borrowing comprises secondary traded spreads on bonds issued by New Zealand banks in the US market and the 5-year NZD basis swap. The retail funding spread is the spread between six-month term deposit rates and the 180-day bank bill rate.

Banks retain adequate liquid asset buffers.

Banks significantly boosted liquid asset holdings (figure 4.11) following the global financial crisis, and these stronger liquidity positions have been maintained following the introduction of the prudential liquidity policy. Locally incorporated banks that are required to meet the prudential liquidity standards all hold buffers above their minimum mismatch ratios. Despite turbulence in international markets, New Zealand banks have had little difficulty securing short-term funding so far. Stronger liquid asset holdings, as well as the longer duration of wholesale liabilities, lengthen the period of time that banks would be able to withstand a closure of funding markets. Banks hold large quantities of repo-eligible assets in the form of residential mortgage-backed securities against which the Reserve Bank can lend should the need arise.

Figure 4.11

New Zealand banks' liquid asset holdings



Source: RBNZ SSR.

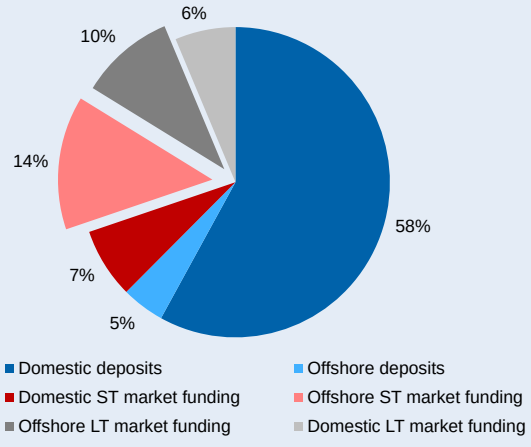
Note: Liquid assets are defined here as currency, government securities and claims on the Reserve Bank. This is a narrower definition than the one that is used in the Reserve Bank's prudential liquidity policy.

Box D

Implications of the European sovereign debt crisis for New Zealand bank funding

Over recent months financial markets have experienced substantial volatility associated with the European sovereign debt crisis and the deteriorating global growth outlook. New Zealand's banking system is exposed to international debt market conditions with a significant proportion of funding raised offshore (figure D1). This funding is diversified across different regions and products – most notably short-term commercial paper, long-term unsecured bonds and, more recently, covered bonds.[3] This reliance on offshore market funding is related to New Zealand's overall low savings rate and associated lack of liquidity and depth in domestic capital markets, which constrain the ability of banks to raise wholesale funding locally.

Figure D1
Composition of bank funding
(as at 30 September 2011)



Source: Liquidity policy returns.
Note: Includes all non-equity funding sources of the seven locally incorporated banks that are required to comply with the prudential liquidity policy. Short-term (ST) is funding with residual maturity of less than one year. Deposits are funding sources that are defined as 'non-market' under the liquidity policy.

[3] Covered bonds have a claim on both the issuer and a pool of collateral such as residential mortgages. See the November 2010 *Report* for further details.

Conditions in global funding markets have deteriorated over 2011, both in terms of the cost at which finance is being raised, as well as the volume of debt that borrowers have been able to issue. European markets, in particular, have become more stressed with a number of European banks unable to obtain unsecured funding beyond very short terms. However, so far market participants appear to have been fairly discriminating, with sound borrowers able to issue debt over much of the past year despite it being more expensive.

New Zealand and Australian banks have been able to maintain a reasonable degree of market access. Generally, New Zealand banks have had little difficulty in raising short-term funding recently, with little movement in short-term funding costs. The availability of unsecured funding for longer terms is harder to gauge, as issuance is fairly sporadic, and there has been a low volume of foreign debt issuance by New Zealand banks so far this year. Funding needs have been low, with domestic credit demand generally weaker than expected and domestic retail funding having been unexpectedly strong. However, it would have been very difficult to place new longer-term unsecured debt issues over the past 2–3 months as the sovereign debt crisis has played out.

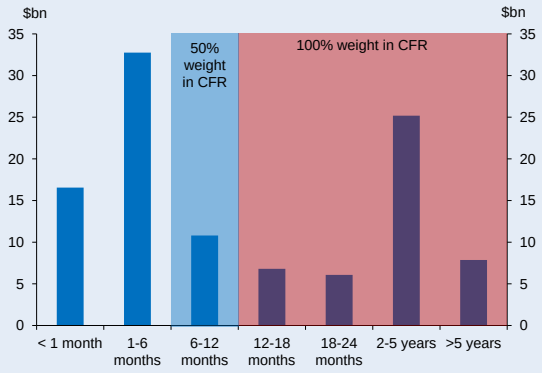
About $15 billion of bank term funding, which currently qualifies as core funding, will move to shorter maturities and no longer qualify as core funding over the next 12 months (figure D2).[4] New issues of long-term debt or additional retail funding will be required in coming months to maintain core funding levels. New covered bonds are likely to provide some of this funding, as covered bond markets have generally continued to function well with little change in spreads. However, banks may only encumber up to 10 percent of their assets as collateral in covered bonds. Thus covered bonds will only be able to provide a portion of bank funding needs, requiring banks to raise unsecured long-term funding or additional retail funding as market conditions allow.

[4] Core funding is essentially the sum of non-market funding and market funding with greater than one year to maturity. For further details see, Hoskin, K, I Nield and J Richardson (2009) "The Reserve Bank's new liquidity policy for banks", Reserve Bank of New Zealand *Bulletin*, 72(4), pp. 5-18.

Figure D2

Maturity structure of major banks' wholesale funding

(as at 30 September 2011)



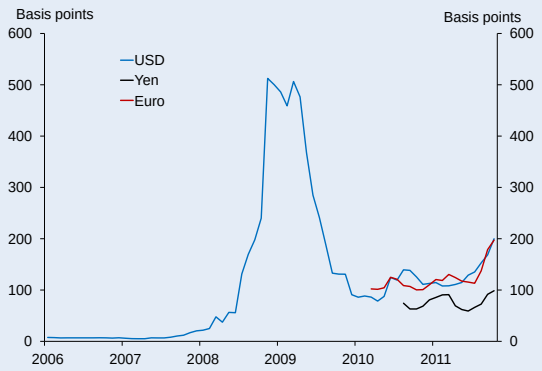
Source: Private reporting data from the four major banks.
Note: Wholesale funding with 6-12 months left to maturity only receives a 50 percent weight in the core funding ratio if the original term of the funding was greater than two years.

While there has been little issuance of debt by New Zealand banks recently, secondary market traded yields on New Zealand bank bonds suggest that raising new funding would be more expensive than earlier in the year (figure D3). In addition, the cost of hedging the currency risk of this borrowing remains high (figure D4). In particular, the cost of hedging euro funding has risen substantially, making this a relatively expensive market from which to secure funding at present (table D1).

Figure D3

Secondary traded spreads on New Zealand bank bonds

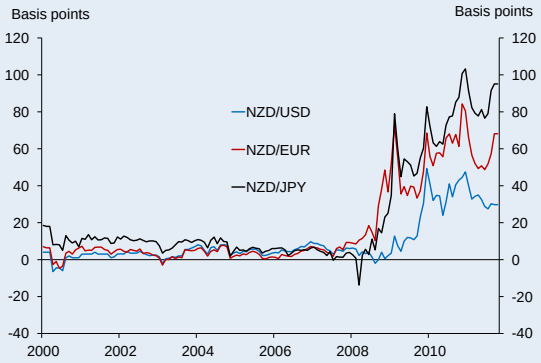
(spread to swap rates)



Source: Bloomberg, RBNZ calculations.
Note: Calculated as an average of secondary traded yields on a number of unsecured bond issues by New Zealand banks with three to seven years to maturity relative to swap rates in the same market and for the same maturity.

Figure D4

5-year basis swap spreads



Source: Bloomberg.

The resolution of the European sovereign debt crisis is likely to take some time, and bank funding markets are likely to continue to experience strain until a credible resolution occurs. Elevated funding costs in offshore markets will increasingly affect banks' overall cost of funds and result in a bigger wedge between the Official Cash Rate and the interest rates facing borrowers. If access to offshore debt markets becomes even more difficult, the Reserve Bank has capacity to provide temporary funding to the banking system through its liquidity facilities. These facilities worked well during 2008–09 when offshore debt markets were frozen for several months. Importantly, as discussed in previous *Reports*, New Zealand banks have very limited need for foreign currency funding (which would be harder for the Reserve Bank to provide). While New Zealand banks borrow in foreign debt markets, they routinely hedge that funding into New Zealand dollars.

Despite the generally difficult conditions in funding markets, some global banks have been able to raise unsecured long-term debt in recent months. Furthermore, covered bond markets have generally been open for most borrowers, with ANZ National raising funding in this market in October. New Zealand banks have so far been insulated from the current tightening in debt markets by virtue of holding healthy buffers over their core funding requirements. However, it will be important for banks to issue term funding as markets free up in order to maintain strong funding positions, so that periodic funding market disruptions can continue to be weathered with relative ease.

Table D1

Bank long-term wholesale funding costs

(relative to swap rates)

	March 2011	October 2011
Long-term unsecured funding		
5-year funding in US market	110	200
5-year USD basis swap	35	30
NZD cost of US 5-year unsecured funding	145	230
5-year funding in European market	130	200
5-year euro basis swap	50	70
NZD cost of euro 5-year unsecured funding	180	270
5-year unsecured funding in NZ market	140	185
Covered bonds		
5-year funding in European market	75	95
5-year euro basis swap	50	70
NZD cost of euro 5-year covered bond funding	125	165

Source: Bloomberg, RBNZ calculations.
Note: Based on a combination of secondary traded spreads and spreads at issue for bonds issued by New Zealand banks.

4.2 Non-bank sector

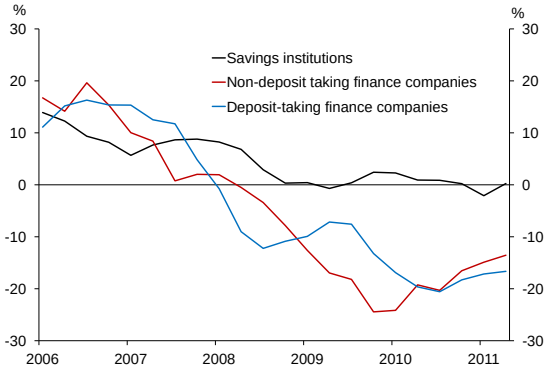
The non-bank deposit-taking sector is still consolidating following widespread failures over the 2008–10 period. Parts of the finance company and building society sectors are continuing to deal with the legacy of high problem loan levels. These are gradually being worked through, and problem loan levels are starting to decline. One small finance company, NZF Money, was placed into receivership in July after being unable to meet deposit repayments due to loan losses on property finance loans. Some institutions have responded to difficult trading conditions by merging with other entities in the sector. A recent example of this was the acquisition of PGG Wrightson Finance by Heartland Building Society. In October, the PSIS announced it had successfully applied for registration as a bank and has been renamed The Co-operative Bank Ltd.

Nevertheless, some parts of the non-bank sector have experienced much stronger trading conditions. Consumer lending finance companies have fared relatively well, and have seen some growth in lending. Savings institutions have also been relatively resilient (figure 4.12), with credit unions in particular showing reasonable growth in lending.

Figure 4.12

Non-bank lending

(annual percent change)



Source: RBNZ SSR.
Note: Series break adjusted.

4.3 Insurance sector

Canterbury earthquakes providing challenges for the New Zealand insurance sector.

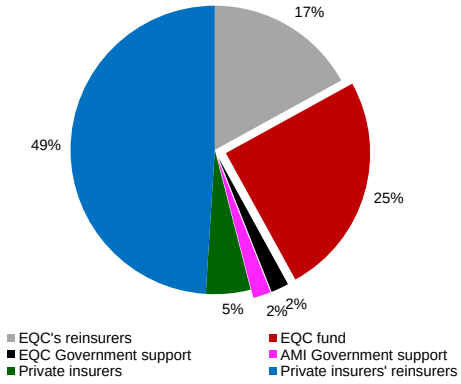
There have been more claims and affected policyholders as a result of the Canterbury earthquakes than from any other insurance event in New Zealand, and the insurance cost of the earthquakes far exceeds the cost of all previous disasters in New Zealand. The complexity of the Canterbury earthquake claims settlement process in the face of ongoing aftershocks means that there is considerable uncertainty

about the timing of claims settlements – a factor delaying reconstruction in the region (see chapter 3).

New Zealand has benefited from a high level of reinsurance protection...

Without the support from reinsurance there would have been either more insurers in financial difficulty as a result of the earthquakes or reduced levels of insurance coverage. Reinsurance cover will contribute the majority of total funding for property-related insured losses from the Canterbury earthquakes (figure 4.13).[5] The remainder will be met by a combination of funding from the Government's Earthquake Commission (EQC) and private domestic insurers. EQC also relies heavily on reinsurance to cover a significant proportion of its residential insurance claims costs. The Government has provided a $500 million support package for AMI – a large New Zealand-owned insurer heavily exposed to the Canterbury region. In August, the EQC announced that its Natural Disaster Fund is likely to be exhausted by earthquake claims, requiring further government support.

Figure 4.13
Estimated shares of Canterbury earthquake property-related insurance claims



Source: EQC, RBNZ.
Note: Property-related claims cover all insured claims related to physical property, including damage to land (through EQC), buildings, contents and infrastructure, as well as business interruption and consequential loss.

The reinsurers funding the majority of earthquake claims are large global reinsurers, with generally strong financial ratings and the ability to absorb the elevated level of global reinsurance claims from the recent spate of costly catastrophes around the world. Domestic non-life insurers manage their counterparty risks (the possibility of a global reinsurer becoming insolvent) by arranging their reinsurance through a panel of several reinsurers who each take a modest share of the reinsurance risks.

...but financial losses have reduced private insurers' capital buffers.

Notwithstanding this high level of existing reinsurance cover, capital buffers held by non-life insurers have been reduced by retained losses arising from the Canterbury earthquakes, as well as the additional reinsurance premiums required to reinstate cover or purchase further cover. For those insurers operating in New Zealand as subsidiaries of foreign-owned entities, parental support has been evident. Several insurers have had additional capital injected this year. With these injections and government support of AMI, the sector generally appears well placed to meet claims.

The total estimated cost of property-related insurance claims from the Canterbury earthquakes is currently around $30 billion. Other reported measures of earthquake costs may be conceptually different. For example, to compare the $30 billion estimate for property-related insurance costs with the $20 billion cost of the rebuild identified in the September *Monetary Policy Statement* the following adjustment factors must be taken into account:

- insurers' claim handling expenses and financial claims for business interruption, temporary accommodation, consequential loss and other non-rebuild related claims that are included in the $30 billion estimate;
- the addition of uninsured costs of property damage to rebuild estimates;
- adjustment for insured property damage which is not repaired or rebuilt; and,
- adjustment for inflation and the discounting of insurance payments into net present value terms that are assumed in current insured property-related loss estimates.

The final cost will be known only once all claims have been settled, which could be some years away. In the meantime, estimates reflect a mixture of indicative estimates and more detailed assessments by insurers. Adjustments for

[5] Reinsurance will cover approximately 90 percent of private insurers' claims costs and 65 percent of total property-related claims costs.

over or under-reserving of earthquake claims are likely to continue for several years.

The details of reinsurance coverage and identity of reinsurers varies by earthquake event. Insurers have to allocate claim costs between earthquakes and related aftershocks. For claims which involve EQC, the claims assessment process must also identify the allocation of claims costs between EQC and the insurer. One issue that has been identified is the condition under which EQC cover is reinstated based on whether subsequent earthquakes and aftershocks are treated as separate events. The High Court made a declaratory judgment in September that EQC cover is reinstated for each earthquake subject to a few minor conditions, which is a favourable ruling for private insurers.

The availability of insurance has been affected in the short term.

An important short-term impact of the Canterbury earthquakes has been the reduction in the availability of new insurance coverage in the region. Most businesses and households are unable to change insurers at present. For those currently without insurance cover, the impact is more significant. For example, owners of some earthquake-prone buildings and infrastructure can no longer get insurance cover in Canterbury or elsewhere in New Zealand. Other changes to date include higher premiums to fund increased reinsurance costs and larger excesses. On 11 October 2011, the Government announced that EQC levies would triple from February 2012 to meet EQC's higher reinsurance costs and begin replenishing the Natural Disaster Fund.

Looking further out, insurers and reinsurers in the non-life insurance market will reassess their risks and opportunities in New Zealand. It is expected that this will include the eventual return of an active market for new customers in Canterbury. There will also be a review of EQC within the next few years which could affect the interaction between the public and private provision of insurance for earthquake-related risk in New Zealand.

The life insurance sector has been more affected by financial market developments.

Life insurers have not been affected in the same way as property insurers from the Canterbury earthquakes. For life insurers the decline in the value of global financial assets discussed in chapter 2 is more of an issue in the current environment. Life insurers tend to hold a higher proportion of equities within their asset portfolios compared to non-life insurers.

The Reserve Bank will assume full regulatory responsibility for the sector early next year.

The Reserve Bank will be in a position to more closely monitor the financial position and solvency of insurers when powers under the Insurance (Prudential Supervision) Act 2010 come into force from March 2012. Some international insurers within New Zealand are already subject to the solvency requirements of their home regulators. Others have voluntarily adopted solvency standards issued by overseas regulators, or industry and actuarial bodies. Once fully licensed, all insurers will be required to hold a specified level of capital under the solvency standards issued by the Reserve Bank. A few insurers have had capital injected in the past year either to shore up their financial position following the Canterbury earthquakes or in anticipation of the solvency requirements. All insurers in New Zealand must be fully licensed by 7 September 2013 and some restructuring can be expected within the insurance sector through this licensing period.

5 Payment and settlement systems

New Zealand's financial market infrastructure has continued to operate effectively in the past six months. Key systems have processed payments effectively and exhibited a high degree of technical reliability.

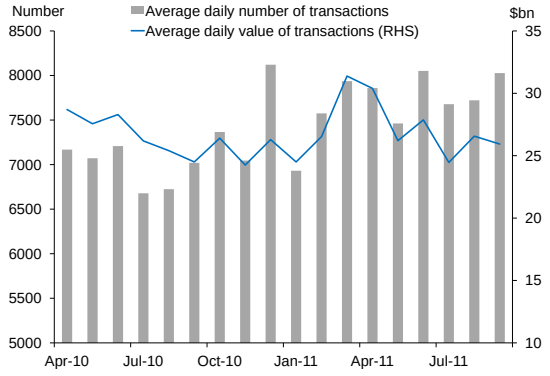
The payment and settlement landscape continues to evolve as regulators, together with market and technological trends, drive change in the sector. The Reserve Bank and Payments NZ Ltd are developing new arrangements for the exchange and settlement of small value customer payments. Payments NZ Ltd has announced plans for a study of the declining use of cheques as a payments instrument. Payments NZ Ltd has also introduced changes to facilitate easier account transfer between banks. Lower barriers to account switching will help to improve competition among banks with benefits for bank customers.

Globally, work continues towards having all standardised over-the-counter (OTC) derivative contracts cleared through central counterparties. The Reserve Bank has no current plans to make any specific regulatory changes in this area, although it is expected that New Zealand banks may move towards reporting and to central clearing due to efficiency and risk considerations, or pressures from global regulators and offshore counterparties.

New Zealand payment and settlement systems are performing well.

The main New Zealand payment and settlement systems have operated without significant incident over recent months. Key systems have processed payments effectively and exhibited a high degree of technical reliability.

Figure 5.1
ESAS transactions by number and value



Source: RBNZ.

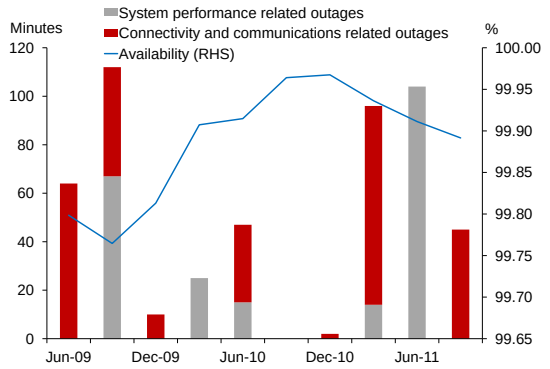
The Exchange Settlement Account System (ESAS), owned by the Reserve Bank, is at the heart of the New Zealand payment system. ESAS allows the settlement of interbank payments on a real-time basis. While the number of transactions settled in ESAS has grown in recent months (figure 5.1), the capacity of the system has not been under pressure, with peak transaction volumes in ESAS well below the system's capacity. There have also been no issues with the timeliness of settlements. The total value of payments settled in ESAS over recent months has reflected the level of trading of the New Zealand dollar in the foreign exchange market.

Given its core role in the payment system, ESAS needs to maintain high levels of availability. The Reserve Bank's Financial Services Group (FSG) operates both ESAS and the NZClear system. FSG has a target of having the two systems fully available for users at least 99.95 percent of the time during core business hours.[1] This target sets a very high standard for the systems. In recent months there have been a number of incidents that have resulted in overall

[1] ESAS and NZClear availability are discussed together because of the close links between the two systems and because that is the way that the systems' operator reports.

availability falling below the target (figure 5.2). However, these incidents have not caused significant disruption as they have either only partially impaired the systems' performance or have occurred at times when the problems have had a limited impact.

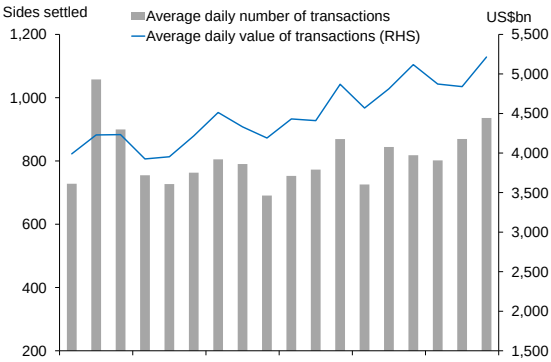
Figure 5.2
ESAS/NZClear availability and outages



Source: RBNZ.
Note: Availability is for the 12 months to the current period.

The Continuous Linked Settlement (CLS) system allows the settlement of foreign exchange transactions on a payment-versus-payment basis, thereby eliminating foreign exchange settlement risk. The use of the CLS system by New Zealand banks has increased broadly in line with the overall global usage of the CLS system, which, in both value and volume terms, has grown significantly since late 2008 (figure 5.3).

Figure 5.3
Total global CLS transactions – values and volumes
(daily average)



Source: CLS.

Activity in the latest addition to New Zealand's financial market infrastructure, the NZCDC settlement system (used to settle trades on NZX markets), continues to grow. The system settles securities trades averaging a total value of around $120-130 million a day. The system is also used to settle futures traded on the NZX derivatives market. Activity on that market is modest but growing steadily.

The NZCDC system has reported good availability in recent months following a number of technical problems in its early period of operation.

New arrangements are being developed to reduce settlement risk for retail payments.

Several years ago the Reserve Bank expressed concern about the level of interbank settlement risk associated with the exchange and settlement of retail payments (generally smaller value payments made by customers using instruments such as cheques, internet banking and EFTPOS cards). The banks, Payments NZ Ltd (the company established in 2010 to set the rules governing the way that banks exchange and settle payment instructions) and the Reserve Bank (as the operator of ESAS and NZClear) have made good progress on developing new arrangements that will address this concern. Under the new arrangements, due to be implemented in early 2012, transactions will be settled at the same time that payment details are exchanged.

Innovation in retail payments is ongoing.

As part of its oversight role, the Reserve Bank monitors developments in the payments industry, such as the establishment of new payment service providers and the introduction of new payment instruments.

There has been a shift in the usage of various payment instruments in recent years. These trends appear to reflect consumer demand for sophisticated, web compatible instruments.

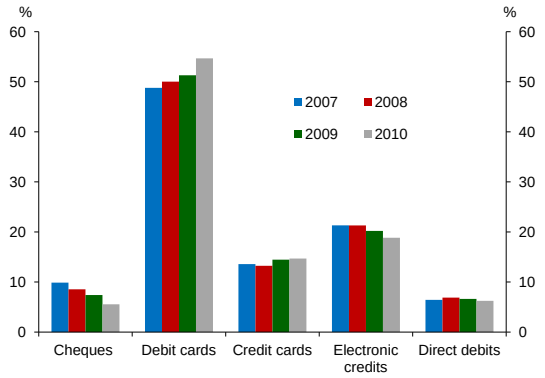
In particular, there has been an ongoing decline in the use of cheques and a corresponding growth in the use of electronic methods of making non-cash payments

(figure 5.4).[2] Given this development, Payments NZ Ltd has announced plans for a study of cheques as a payment instrument to ensure that, as cheque usage declines, consumers' payment needs continue to be met. The first stage of the planned study will be the gathering of data and consultation.

Figure 5.4

Usage of non-cash payment methods

(share of the number of payments)



Source: Payments NZ Ltd.

Payments bodies in a number of other countries are also reviewing cheque usage and appear to be facing public pressure to retain the option of using cheques.

Another development of note has been an ongoing increase in the use of debit cards carrying the brand of one of the major international credit card schemes. These 'scheme' debit cards are used in exactly the same way as domestic debit (EFTPOS) cards when purchasing goods on a face-to-face basis, but unlike a standard EFTPOS card, scheme debit cards can also be used to pay for items purchased via the internet. The Reserve Bank currently has no concerns about the impact of this trend on the overall soundness and efficiency of the financial system given that the systems for processing card transactions are not systemically important.[3] However, the Reserve Bank will continue to monitor developments.

Barriers to account switching have been reduced.

In December 2010 Payments NZ Ltd launched an initiative to help facilitate customer account transfer between banks.[4] Barriers to customer switching, through high perceived or actual costs, inertia or brand loyalty, have been identified as limiting competition among banks and hence detrimental to the efficiency of the financial system. The Payments NZ Ltd initiative means that a bank customer switching banks does not need to cancel and re-establish multiple recurring debit or automatic payments. This initiative will thus reduce a customer's barriers to switching.

Payments NZ Ltd has since completed a post-implementation review and is satisfied that the new processes have worked well at an operational level.

G20 countries are moving to centrally clear over-the-counter (OTC) derivatives.

As part of work aimed at improving the resilience of the financial system, the G20 has committed to having all standardised OTC derivatives contracts traded on exchanges, or on electronic trading platforms where appropriate and cleared through central counterparties by the end of 2012. The G20 has also agreed that the transparency of OTC transactions should be improved by maintaining a central registry of OTC derivatives contracts (a trade repository).

Internationally moves are under way to implement the G20 commitments through specific regulatory proposals in various countries. In June 2011, the Australian Council of Financial Regulators issued a consultation paper on central clearing. The paper sought views on whether the Australian Government should require central clearing of Australian dollar (AUD) derivatives products and, if so, whether AUD products should be cleared through an Australian domiciled central counterparty (CCP).

[2] The information in figure 5.4 relates only to non-cash payments. New Zealanders also make a significant proportion of payments using notes and coins. The available information on the use of cash is discussed in Flavall, K (2011) "Recent trends and developments in currency – 2010/2011", Reserve Bank of New Zealand *Bulletin*, 74(3), pp. 22-29.

[3] A payment system is systemically important where a disruption could trigger or transmit further disruptions among participants or to the New Zealand financial system.

[4] This initiative is confined to eight Payments NZ Ltd members: ANZ, BNZ, ASB, Westpac, Kiwibank, TSB, Citibank and HSBC. Customers of non-bank deposit-takers and a number of smaller banks that are not members of Payments NZ Ltd are unable to take advantage of this initiative.

The Reserve Bank is finalising a policy position on centralised clearing and the reporting of derivatives trades but there are currently no plans to make any specific regulatory changes. There are benefits in improving the transparency of derivatives transactions via centralised reporting to a trade repository. However, mandating central clearing would not necessarily reduce systemic risk in New Zealand given the types of derivatives contracts mainly traded by New Zealand banks (foreign exchange forwards and swaps, New Zealand dollar interest rate swaps, New Zealand dollar forward rate agreements and cross currency swaps) and the risk management practices currently in use.

Nevertheless, New Zealand banks may move towards reporting and central clearing due to pressure from offshore counterparties subject to the requirements imposed in other countries. In this context the Reserve Bank expects that New Zealand banks will move to centrally clear where efficiency and risk considerations dictate and the most likely outcome seems to be that clearing will be done through a central counterparty located overseas.

It will therefore be important that New Zealand banks have access to appropriate reporting and clearing infrastructure. The appropriateness of arrangements will depend on the following considerations:

- the extent to which the arrangement will improve the transparency of derivatives trading;
- the extent to which the arrangement will address concerns about risk management;
- whether the arrangement gives rise to any increased risk for New Zealand banks;
- efficiency concerns such as the cost of the central clearing services, the economies of scale and the possible impact of the costs of New Zealand banks' monitoring of counterparties; and
- governance matters such as the ability of New Zealand regulators to influence the arrangements of the CCP.

The Reserve Bank intends to actively monitor developments to assess the possible options available to New Zealand banks.

6 Recent developments in financial sector regulation

In early November the Reserve Bank released a consultation paper on the core capital elements of Basel III. The Reserve Bank is seeking comment on higher minimum capital ratios, definitions of capital and the leverage ratio. Consultation on other aspects of the Basel III framework will take place in 2012.

The Reserve Bank has begun examining the governance and implementation issues associated with various macro-prudential policy instruments, including the Basel III counter-cyclical capital buffer. Macro-prudential instruments seek to address the build-up of systemic risk within the financial system following periods of rapid credit growth.

Other important aspects of the Reserve Bank's regulatory work programme since the last *Report* involve the development of solvency standards for the insurance sector, which includes a catastrophe risk capital charge, and consideration of extending the existing prudential liquidity policy to all branches of foreign banks operating in New Zealand.

In relation to ongoing work, the Reserve Bank has decided to delay the planned increase in the core funding ratio (CFR) for banks by six months due to current financial market turbulence. The CFR will now increase from 70 to 75 percent at the start of 2013. A consultation document on pre-positioning for Open Bank Resolution (OBR) was also released earlier in the year.

6.1 International regulatory framework (Basel III)

Capital

Basel III refers to new global regulatory standards for bank capital adequacy and liquidity prepared by the Basel Committee on Banking Supervision (BCBS). The main elements of Basel III are higher capital ratios, new definitions of capital and a leverage ratio.[1] Basel III incorporates a new measure called the conservation buffer which is being introduced to ensure banks maintain a buffer of capital over the minimum ratio requirements. The buffer can be used to absorb losses during periods of financial and economic stress. A counter-cyclical buffer of common equity is also introduced, to be implemented according to national circumstances. The purpose of this buffer is to achieve the broader macro-prudential goal of protecting the banking sector from periods of extraordinary aggregate credit growth.

A consultation paper on the implementation of Basel III capital requirements in New Zealand was released by the Reserve Bank in early November 2011.[2] The consultation paper seeks submissions on capital ratios, the definition of capital, and the leverage ratio. The Reserve Bank will consult on other elements of Basel III in 2012. This will include the counter-cyclical buffer and a policy on restrictions that apply to banks operating within the conservation buffer. The 2012 consultation will also consider counterparty credit risk requirements, which although significant in some jurisdictions, are not expected to imply large increases in capital requirements for New Zealand banks.

The Reserve Bank's initial assessment of the costs and benefits of the Basel III capital ratios supports tightening

[1] Chapter 6 of the November 2010 *Report* provides a summary of the Basel III standards, while chapter 6 of the May 2011 *Report* outlines the principles that the Reserve Bank has used to guide its implementation of Basel III in New Zealand.

[2] The consultation paper is available at http://www.rbnz.govt.nz/finstab/banking

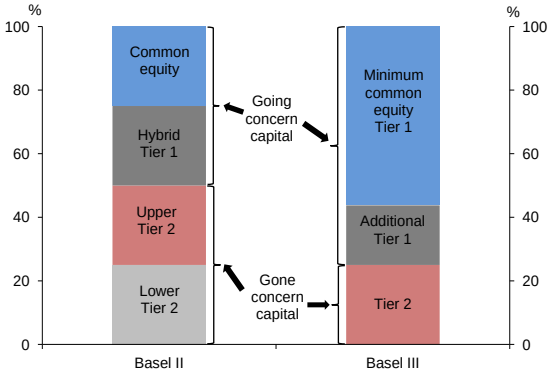
existing requirements to match the Basel III standards set out in table 6.1. The analysis takes into account the financial stability benefits from higher capital requirements, as well as the costs in the form of potentially higher bank lending rates. However, any increases in lending rates would be small as overall balance sheet risk is unchanged.

There are three components of capital within the Basel III framework: common equity, additional Tier 1, and Tier 2 (figure 6.1). Common equity and additional Tier 1 capital can absorb unanticipated losses without the bank being obliged to cease trading (going concern capital). Tier 2 capital is restricted in its ability to absorb losses other than in a wind up (gone concern capital). Compared with Basel II, Basel III places more emphasis on common equity and there are tighter eligibility criteria for Tier 1 and Tier 2 capital instruments. Also, Basel III incorporates a more conservative approach to capital deductions.[3] The Reserve Bank is proposing to align its capital adequacy standards with the three Basel III components and to generally adopt the eligibility criteria and deduction rules to the extent that doing so would strengthen our standards.

The Reserve Bank's existing definition of capital rules is already conservative. However, adopting the Basel III standards as proposed in the consultation document will result in more stringent capital adequacy requirements. This is largely because of the greater significance of common equity in the capital ratio, and tighter eligibility rules for additional Tier 1 capital and Tier 2 capital.

Figure 6.1

Capital adequacy requirements – Basel II and Basel III compared



Note: With the exception of common equity, the bars represent the maximum proportion of banks' capital requirements that can be provided by these instruments.

The Reserve Bank's existing rules for the calculation of risk-weighted assets (the denominator of the capital ratio) are calibrated to New Zealand circumstances and are conservative by international standards. This conservative approach to risk-weighting will be unaffected by the implementation of Basel III.

The Reserve Bank has previously stated that it is not in favour of the Basel III leverage ratio, although submissions are sought on the leverage ratio's suitability for New Zealand.[4]

A deadline of 27 January 2012 has been set for responses to the consultation paper. As well as asking for submissions on the proposed approach, banks have also been asked to provide information about how their existing

Table 6.1

New capital ratio requirements and buffers

(as a percentage of risk-weighted assets)

	Common equity	Tier 1 capital	Total capital
Existing RBNZ minimum ratios	-	4.0	8.0
New minimum ratios	4.5	6.0	8.0
Conservation buffer	2.5		
New minimum ratio plus conservation buffer	7.0	8.5	10.5

Note: The table does not include the counter-cyclical buffer proposed by the BCBS.

[3] Deductions are items that do not contribute to the coverage of losses, such as goodwill and also investments in the capital of other financial institutions (because this would in effect use the 'same' capital for covering risks in more than one financial institution).

[4] See the Reserve Bank's submission to the BIS, available at http://www.rbnz.govt.nz/finstab/banking

capital holdings compare to the proposed Basel III capital requirements. New Zealand banks are expected to be relatively well positioned, but further information from them will provide greater clarity.

Following consultation the Reserve Bank will draft new capital adequacy requirements taking into account submissions received, with the release of the draft definition for consultation expected in the first quarter of 2012.

Since New Zealand banks are well placed to meet the proposed new requirements, the expectation is that these will take effect from 1 January 2013, rather than being phased in gradually from 1 January 2013 as the BCBS contemplates.

Liquidity

The Basel III liquidity framework includes two minimum liquidity standards for globally active banking groups. The Reserve Bank's liquidity policy includes two minimum ratios that are conceptually similar and achieve broadly similar outcomes to the two Basel standards. However, the details of the calculation differ. The Reserve Bank does not intend to switch to the Basel standards in the near term, although the New Zealand standards will continue to be reviewed.

The Basel Liquidity Coverage Ratio (LCR) includes very stringent criteria for 'high-quality liquid assets' designed to meet a bank's cash outflows under stress. Overseas banking groups that operate in New Zealand through a branch or subsidiary will be required to meet the LCR by their home country supervisor on a group basis, including holding liquid assets to meet their net New Zealand dollar cash outflow. The Reserve Bank will discuss with home supervisors the eligibility criteria for New Zealand dollar liquid assets.

6.2 Macro-prudential policy

Over the past 18 months, the Reserve Bank has examined the potential for various macro-prudential tools and instruments to address the build-up of systemic risk during periods of rapid credit growth. As discussed in previous *Reports*, such instruments may improve financial stability by providing additional shock absorbing capacity to the financial system in the wake of a credit boom. In some cases, such instruments might also help to dampen rapid growth in credit and asset prices. It should be emphasised however, that with credit growth very subdued (see chapter 3), macro-prudential intervention is not currently warranted. The Reserve Bank's policy development in this area is therefore about preparing a more robust prudential framework to address the next significant domestic credit and asset price cycle.

The Reserve Bank's focus has been centred on the efficacy of four instruments: the counter-cyclical capital buffer proposed by the BCBS; adjustments to the core funding ratio; overlays to sectoral risk weights; and loan-to-value restrictions. While our work suggests there are likely to be benefits from using these tools in the right circumstances, there would also be costs in using them. Some macro-prudential tools may be subject to avoidance if not applied widely and could shift credit growth and financial activity towards institutions or sectors not affected by the regulation. Some tools could also involve significant equity and distributional effects. These considerations suggest the use of macro-prudential tools may be best reserved for periods of exceptional credit growth rather than being deployed frequently.

The Reserve Bank has also begun examining the governance and implementation issues that would be required to operationalise the use of any of the four instruments, should macro-prudential intervention be contemplated in the future. This work has included consideration of:

- techniques identifying the presence of financial vulnerabilities and imbalances (see box B on macro-prudential indicators in chapter 3);
- criteria for establishing the case for macro-prudential intervention;
- the choice of the most appropriate instrument if intervention is warranted; and,
- the calibration of the potential instruments using internal modelling and simulations.

In parallel, a number of international organisations such as the IMF and the Financial Stability Board (FSB), have recently undertaken work to establish best practice for macro-prudential policy frameworks.

The global regulatory reform agenda has focused not only on how systemic risk builds up over the financial and

economic cycle, but also on the distribution of systemic risk across the financial system. Addressing this cross-sectional dimension of systemic risk is also an important part of macro-prudential policy. In July, for example, the BCBS proposed a methodology for identifying those banks whose cross-border activities create vulnerabilities for the global financial system. The BCBS proposed that additional loss-absorbing capacity above the new Basel III minimum – in the form of common equity Tier 1 capital up to 2.5 percent of risk-weighted assets – is required for the top 28 global banks. In addition, a companion consultation document produced by the FSB discussed ways of facilitating the orderly resolution of these global systemically important banks or G-SIBs.[5]

A number of jurisdictions have also been considering ways of explicitly addressing financial institutions that are systemically important for the domestic financial system or 'too-big-to-fail'. The recent final report of the UK Independent Commission on Banking, for example, recommended the structural separation of banking activities (ring-fencing) overlaid by higher capital requirements.[6] At present, the Reserve Bank does not consider that additional loss absorbency capacity is necessary for the largest New Zealand banks. However, the Open Bank Resolution (OBR) policy will help to address the too-big-to-fail problem posed by New Zealand's largest banks, since the policy aims to ensure the continuation of vital financial services, while imposing losses on bank shareholders and creditors rather than taxpayers.[7]

6.3 Insurance policy

The Reserve Bank is progressing with the implementation of the new prudential supervision regime that came into force through the Insurance (Prudential Supervision) Act 2010. Existing insurers are required to have a licence by 7 March 2012 and the Reserve Bank is reviewing licence applications filed following the 30 June 2011 target date.

Over the second half of 2011 the Reserve Bank has issued solvency standards for licensed insurers. There are separate standards for life insurance, non-life insurance and captive insurers transacting non-life insurance business. The standards were developed following consultation and specify the capital requirements for licensed insurers, methods for calculating and reporting solvency and related matters, and the disclosure of solvency related information.

A catastrophe risk capital charge is also part of the solvency standards and is intended to protect the insurers' solvency position from the potential exposure to extreme events.[8] It is expected that a licensed insurer will have sufficient capital and catastrophe reinsurance to cover its exposure to extreme events and still meet the solvency requirements of the Act and any other solvency margin requirements applicable to the licensed insurer issued by the Reserve Bank. Examples of extreme events include pandemics in the case of life insurers, and earthquakes for non-life insurers.

The financial impact on non-life insurers and the emerging systemic impact across the country of the recent Canterbury earthquakes have highlighted the need for insurers operating in New Zealand to have sufficient financial resources to withstand major earthquakes. The adequacy of reinsurance and capital resources becomes vital for the country at a time of serious natural disaster. This means that the capital and/or reinsurance requirements for non-life insurers must be set at a level that gives the required degree of comfort that any similar future events should not cause insurer failure.

A policy position paper accompanied the *Solvency Standard for Non-life Insurance Business* issued by the Reserve Bank.[9] The paper sets out and explains the Reserve Bank's intentions regarding the calibration of the loss return period for dates on or after 8 September 2015.

In June 2011 the Reserve Bank issued a *Fit and Proper Standard for licensed insurers*.[10] This Standard sets out the matters which a licensed insurer must take into account when determining the fitness and propriety of a person for a position as a director or relevant officer of a licensed insurer.

5 The BCBS and FSB documents can be found at www.financialstabilityboard.org/

6 See http://bankingcommission.independent.gov.uk

7 See Hoskin, K and I Woolford (2011) "A primer on Open Bank Resolution", Reserve Bank of New Zealand *Bulletin*, 74(3), pp. 5-10.

8 See also a forthcoming article in the December Reserve Bank *Bulletin*, available at http://www.rbnz.govt.nz/research/bulletin/

9 Available at: http://www.rbnz.govt.nz/finstab/insurance/

10 Available at: http://www.rbnz.govt.nz/finstab/insurance/

The Reserve Bank also released a governance guideline for licensed insurers. This guideline sets out the minimum governance requirements for licensed insurers and addresses the licensing requirements in relation to governance identified in the Act. The governing body will continue to have ultimate responsibility for the licensed insurer.

6.4 Covered bonds

The Reserve Bank considers there are financial stability benefits from allowing banks to issue a limited amount of covered bonds. Covered bonds provide a relatively stable funding source and help to diversify the funding base of banks. In March this year the Reserve Bank imposed a condition of registration on locally incorporated banks, to allow them to encumber up to 10 percent of their asset base through the issuance of covered bonds.

The Reserve Bank will soon be consulting on a legislative framework for covered bond issuance by New Zealand banks. The objective of a legislative framework would be to create greater certainty as to the treatment of covered bonds in the event an issuing bank was placed into statutory management. The main elements proposed are a registration system for covered bond programmes and amendments to the statutory management regime to ensure that the resolution process relating to a failing bank is separate from the resolution process for a covered bond programme.

6.5 Liquidity requirements for branches of overseas banks

Under the Reserve Bank's liquidity policy, standard minimum ratios were imposed on most locally incorporated banks from 1 April 2010. The policy envisages a more tailored approach to branches of overseas banks. Finalising this approach was deferred on the basis that the branches are not systemic, and that their home country supervisor regulates the liquidity risk of the legal entity as a whole.

The Reserve Bank is now actively considering extending the policy to branch banks. A consultation document setting out the Reserve Bank's thinking is expected to be released by the end of this year.

6.6 Council of Financial Regulators

A new Council of Financial Regulators has been established to facilitate cooperation between the Reserve Bank, the Financial Markets Authority and government departments involved in financial regulation. The Council, which meets on a quarterly basis, contributes to the promotion of an efficient and stable financial system by providing a forum for regulators and government agencies to collaborate at a senior level. The Council's main objectives are to:

- share information on the strategic priorities of member agencies;
- identify important issues and trends in the financial system that may impinge upon achievement of the agencies' regulatory objectives and where appropriate agree processes to address those issues;
- ensure a coordinated response to issues that may require a cross-agency involvement and put in place appropriate mechanisms to achieve this; and,
- ensure appropriate coordination arrangements are in place for responding to events or developments.

6.7 Update on other policies

Core funding ratio

The core funding ratio (CFR) was introduced in 2010 as a measure to enhance banks' resilience against liquidity risk. It requires banks to hold more 'sticky' funding – wholesale funding with a maturity of more than one year and retail deposits. The minimum is currently at 70 percent of total loans and advances, and the Reserve Bank intends to raise it to 75 percent in the future, as previously stated. However, in light of current market turmoil, which has made access to offshore debt markets more difficult, the Reserve Bank considers it prudent to delay the previously scheduled increase in the CFR by six months until 1 January 2013. This decision gives the banks regulatory clarity and underlines the importance of having a robust CFR in place while at the same time taking account of the current market conditions.

Non-bank deposit takers (NBDTs)

The Reserve Bank consulted on proposed NBDT disclosure requirements earlier this year. The proposal included a set of standardised prudential disclosures to enable easy comparison of risks across the NBDT sector, as well as some changes to the framework in which disclosures are made to make the prudential disclosures more useful. The Reserve Bank is now considering the submissions received, with final policy decisions made by the end of 2011. Regulations are expected to come into effect in Q2 2012.

The Non-Bank Deposit Takers Bill was introduced into the House on 3 August and had its first reading on 10 August. It was referred to the Finance and Expenditure Select Committee which is expected to start its work following the election.

Open Bank Resolution (OBR)

The Reserve Bank published a consultation document on pre-positioning for OBR in March 2011. This document consulted New Zealand banks on the systems changes that would be required to pre-position banks' systems to fully implement OBR as a live policy option. Following a request from industry, the Reserve Bank agreed to an extension to the deadline for responding to the consultation from 30 June 2011 to 30 September 2011. Full implementation is still expected to be achieved by the end of 2012.

The Reserve Bank has hosted a number of workshops and seminars designed to assist industry in understanding the required outcomes under the OBR implementation project and will be engaging closely with industry throughout implementation. The next stage of the process is for banks to submit an implementation plan to the Reserve Bank setting out how they will amend their internal systems to meet the requirements of the OBR policy. The deadline for submitting these plans is the end of February 2012.

Significant acquisitions

The Reserve Bank intends to impose a new condition of registration for locally incorporated banks relating to significant acquisitions – for example, financial assets such as loan portfolios or a business – on 31 December this year. This condition of registration will apply to acquisitions above a certain size taking place after 31 March 2012. The Reserve Bank considers that significant acquisitions could pose a risk to financial stability if they significantly alter the risk profile of an acquiring bank. Affected banks will be subject to two requirements:

- First, the bank must notify the Reserve Bank prior to undertaking an acquisition which meets a defined notification threshold.
- Second, the bank must receive a notice of non-objection from the Reserve Bank prior to undertaking an acquisition which meets a defined non-objection threshold.

Anti-money laundering (AML)

Regulations under the Anti-Money Laundering and Countering Financing of Terrorism Act 2009 were gazetted on 30 June 2011. Among other things, the regulations set the date when the AML regime comes fully into force at 30 June 2013, meaning that regulated firms have until this date to ensure they meet their obligations under the Act.

The Reserve Bank has also published, jointly with the other AML/CFT supervisors, several pieces of guidance.[11] *Interpreting "Ordinary Course of Business" Guideline* clarifies the capture of certain business activities and the *Risk Assessment Guideline* is designed to help reporting entities conduct their own assessment of money laundering and terrorist financing risk in their businesses. Finally, the *Identity Verification Code of Practise 2011* sets a best practise for reporting entities conducting name and date of birth identity verification on certain types of customers.

[11] **Available at http://rbnz.govt.nz/aml/**

Graphical appendix[1]

International

Figure A1a

Real GDP growth

(annual percent change)

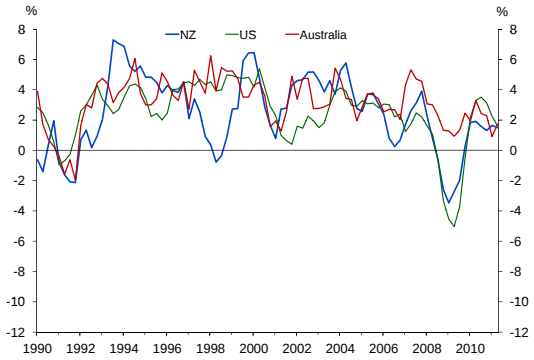


Figure A1b

Real GDP growth

(annual percent change)

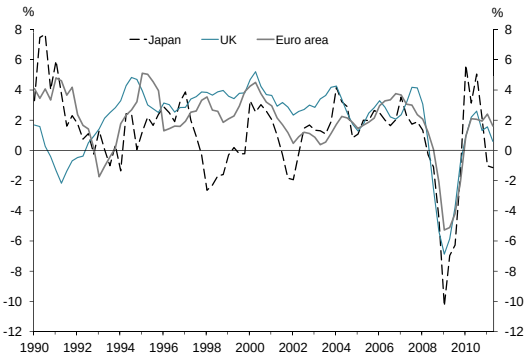


Figure A2a

Current account balance

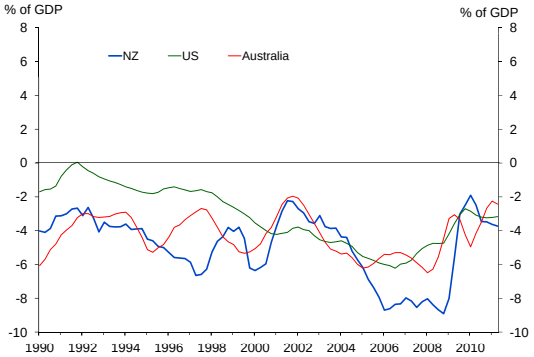


Figure A2b

Current account balance

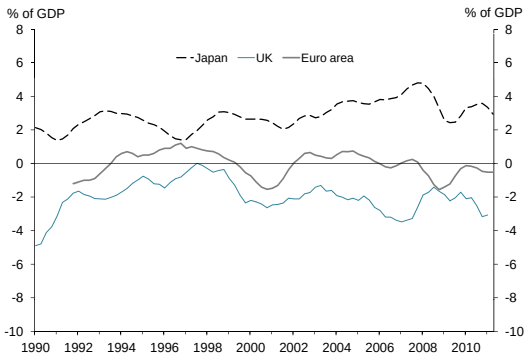


Figure A3

Trade-weighted exchange rate indices

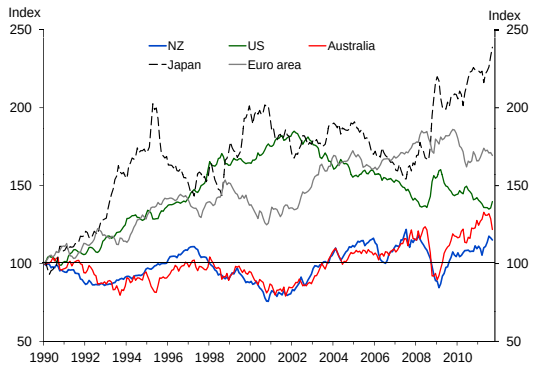
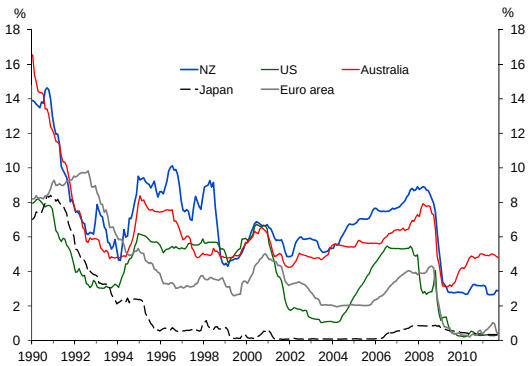


Figure A4

Short-term interest rates



[1] The data contained in this appendix were finalised on 28 October 2011. Definitions and sources are listed on pages 53-54.

Asset prices

Figure A5

Equity market indices

(1997 = 100)

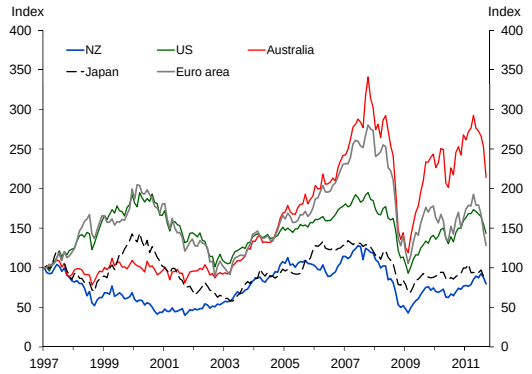
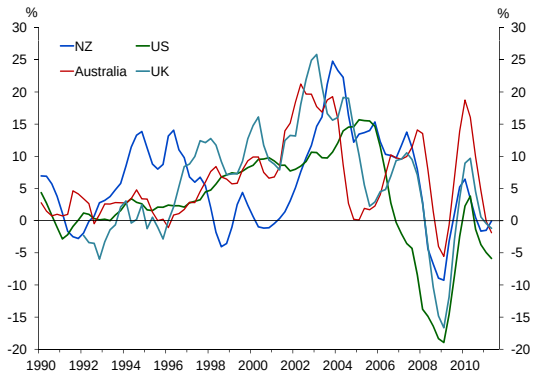


Figure A6

House price inflation

(annual percent change)



New Zealand

Figure A7

Household debt and servicing costs

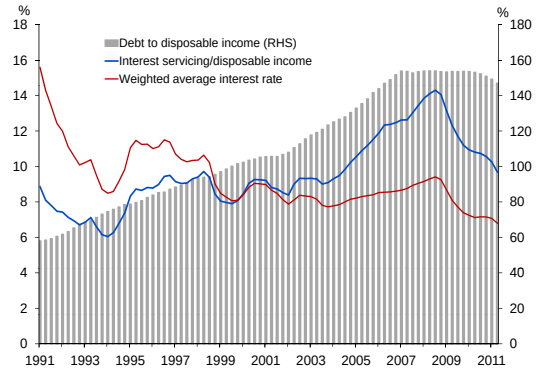


Figure A8

Household assets and liabilities

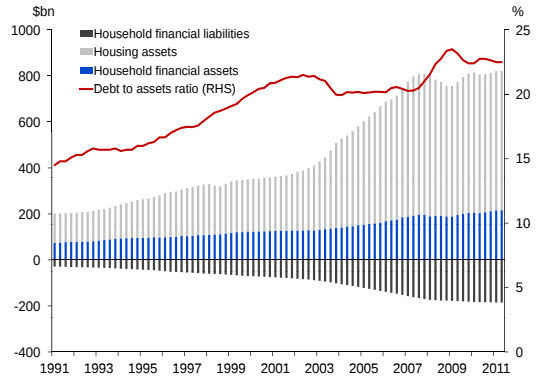


Figure A9

Property prices

(1990 = 100)

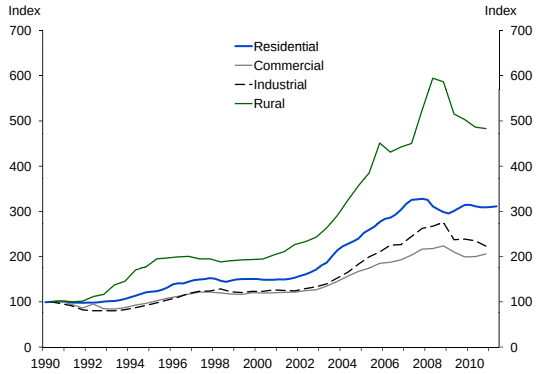


Figure A10

Government debt

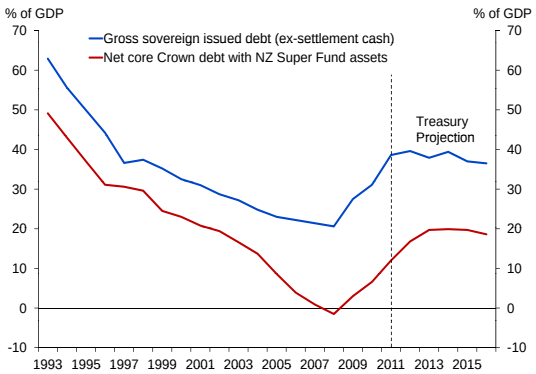


Figure A11

Government bonds on issue and turnover

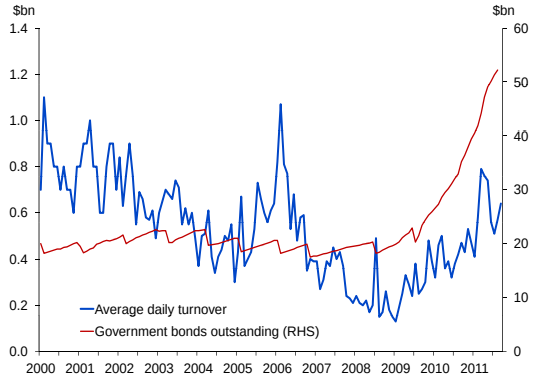


Figure A12

Ten-year government bond spreads

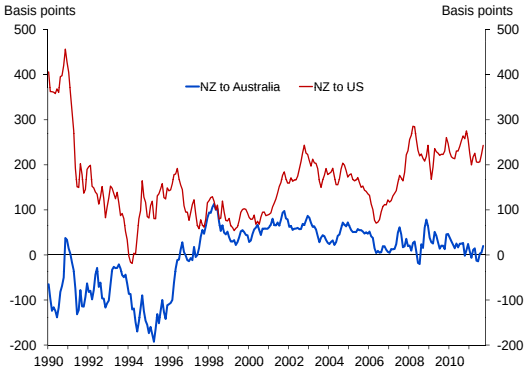


Figure A13

Yields on New Zealand government securities

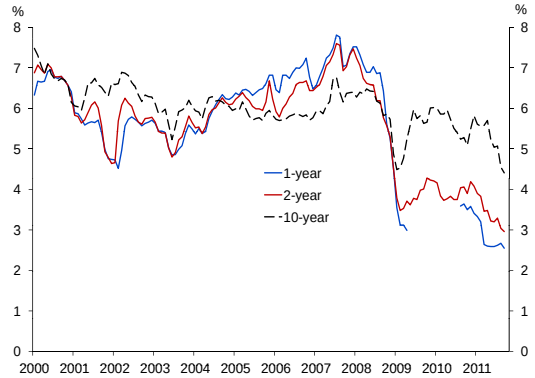


Figure A14

Non-resident holdings of New Zealand government securities

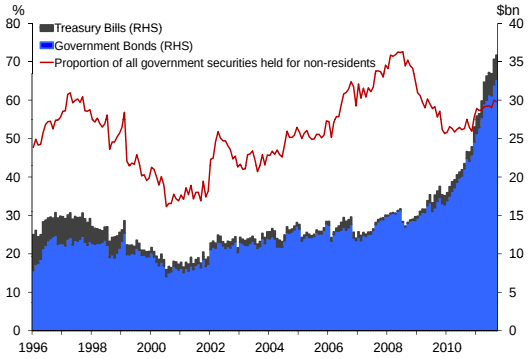


Figure A15

NZD/USD turnover in domestic markets

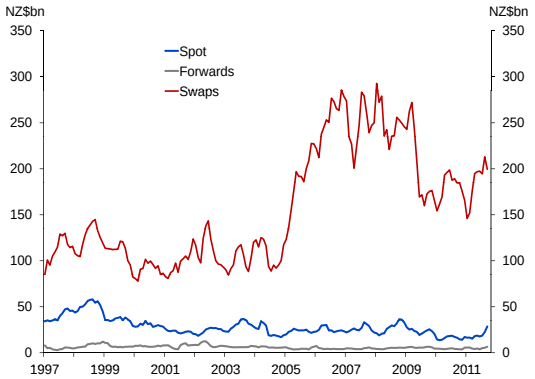


Figure A16

NZD/USD and implied volatility

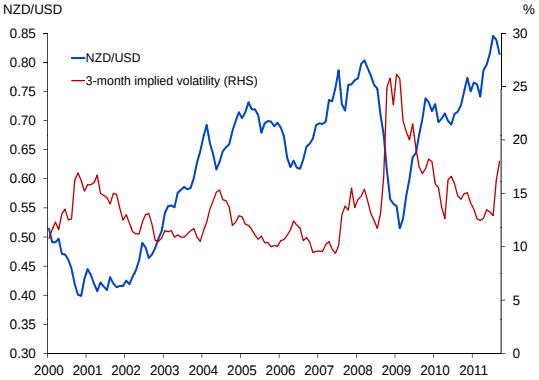


Figure A17

OCR, estimated business lending rate and effective mortgage rate

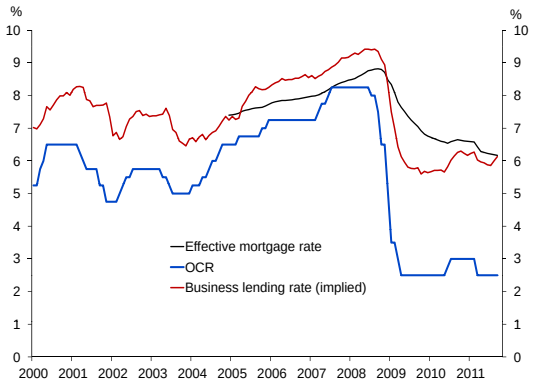
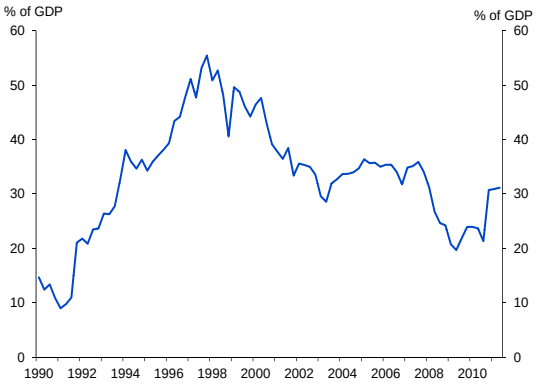


Figure A18

Equity market capitalisation



Banking sector indicators

Figure A19

System-wide capital adequacy ratios

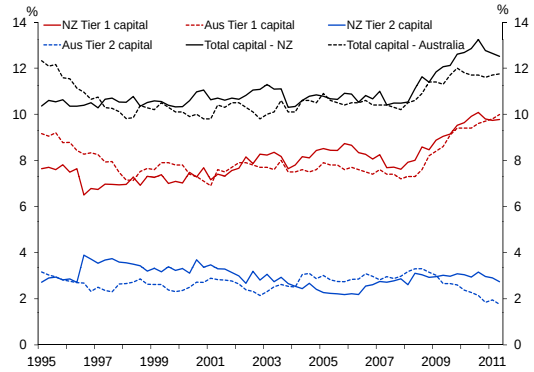


Figure A20

Asset quality

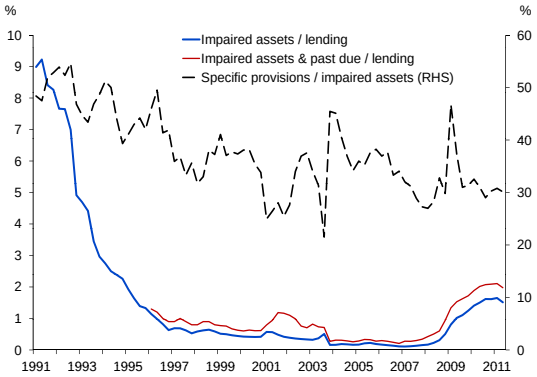


Figure A21

Return on assets

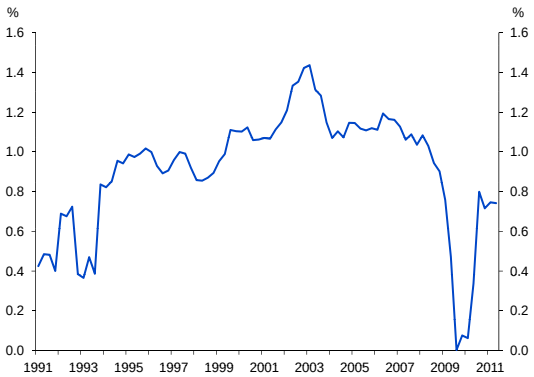


Figure A22

Operating costs to income

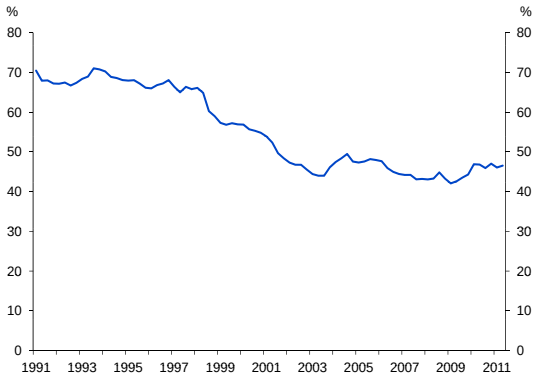


Figure A23

Interest margin

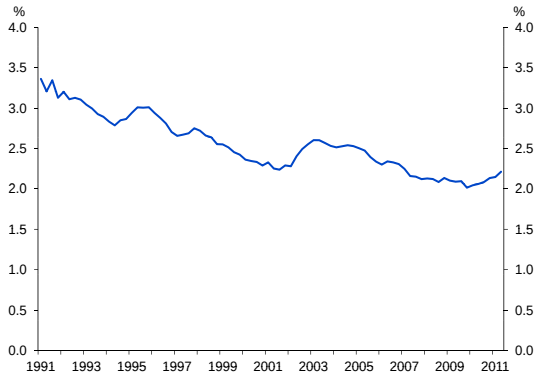


Figure A24

Registered bank offshore funding

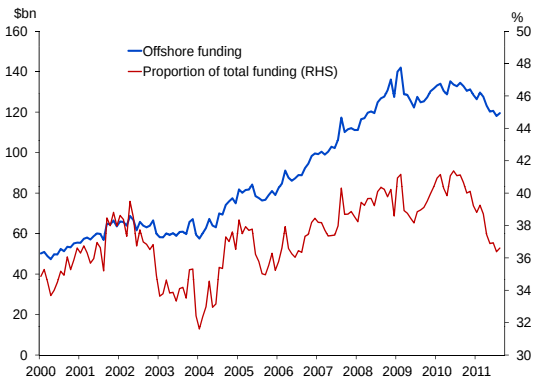


Figure A25

Bank asset composition

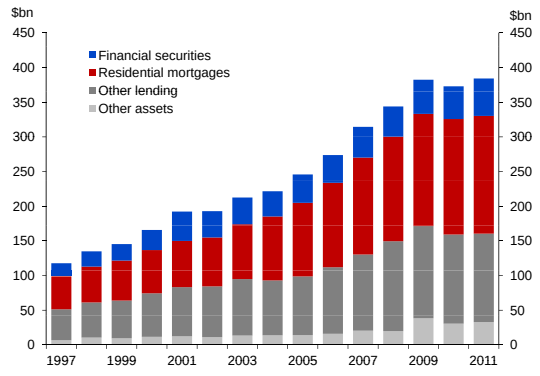


Figure A26

Bank funding composition

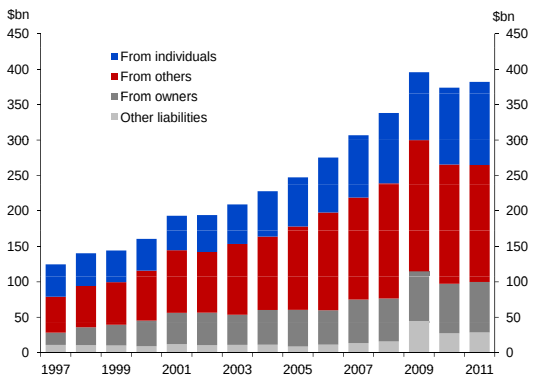


Figure A27

Bank asset growth

(annual percent change)

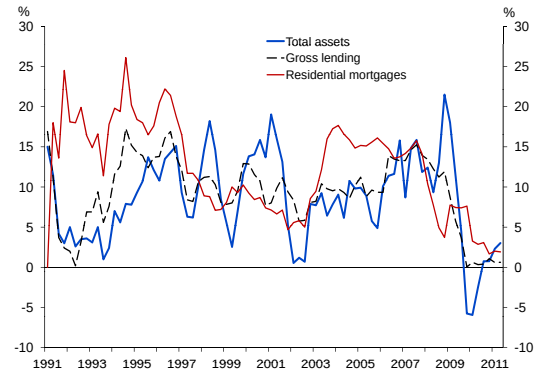
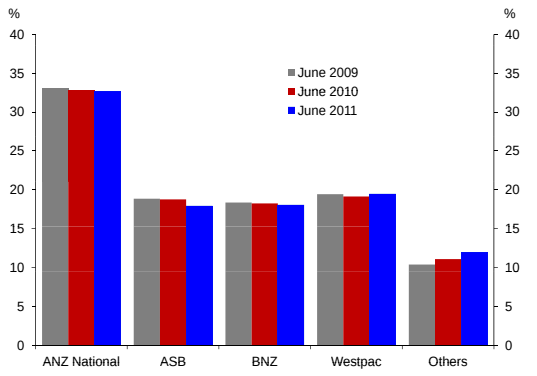


Figure A28

Bank market share



New Zealand financial system assets and liabilities

Table A1

Financial system liabilities

As at 31 December $bn	1990	1995	2000	2007	2008	2009	2010	2011*
Banks								
Households	24	32	41	79	90	93	98	100
Other residents	29	35	54	98	113	102	101	106
Non-residents	11	22	56	111	128	132	128	121
Other liabilities and equity	14	14	29	41	69	51	52	58
Total	78	103	180	329	400	377	380	384
Other non-bank lending institutions								
Households	2	3	5	12	9	9	7	7
Other residents	3	2	4	8	7	6	7	6
Other liabilities and equity	1	1	1	12	10	9	7	6
Total	6	6	10	31	27	24	21	20
Funds under management								
Household assets	26	42	56	64	54	61	64	66
Other sector assets	1	1	5	8	8	8	8	8
Total	27	43	61	72	62	68	72	74
Total financial system liabilities	111	152	251	433	489	469	472	478

Table A2

Financial system assets

As at 31 December $bn	1990	1995	2000	2007	2008	2009	2010	2011*
Banks								
Households	20	42	67	153	163	170	174	176
Other residents	36	45	74	127	149	135	136	136
General government	8	6	7	4	5	13	17	19
Non-residents	2	2	17	15	16	16	13	11
Other assets	12	8	16	30	66	42	40	42
Total	78	103	180	329	400	377	380	384
Other non-bank lending institutions								
Households	2	3	5	15	12	10	9	9
Other residents	3	2	5	13	11	10	8	8
Other assets	1	1	1	4	4	4	3	3
Total	6	6	10	31	27	24	21	20
Funds under management								
Domestic fixed interest	na	na	28	27	28	27	28	29
Domestic equities	na	na	7	9	6	7	8	8
Domestic other	na	na	4	5	4	4	4	4
Overseas investments	na	na	22	31	24	30	32	33
Total	27	43	61	72	62	68	72	74
Total financial system assets	111	152	251	433	489	469	472	478

*** As at 30 June.**

Source: RBNZ surveys and registered banks' GDS.

Note: General insurance companies not surveyed. Property syndication included in 'domestic other' funds under management. Minor values for RMBS not included. Totals and sub-totals may not add due to rounding.

Table A3

New Zealand registered banks

Registered bank's name	Market share[1]	Credit ratings			Ultimate parent	Country of parent
		S&P	Moody's	Fitch		
Australia and New Zealand Banking Group Limited (B)[2]	2.5	AA	Aa2	AA-	Australia and New Zealand Banking Group Limited	Australia
ANZ National Bank Limited	30.1	AA	Aa3	AA-	Australia and New Zealand Banking Group Limited	Australia
Commonwealth Bank of Australia (B)	1.5	AA	Aa2	AA	Commonwealth Bank of Australia	Australia
ASB Bank Limited	16.4	AA	Aa3	-	Commonwealth Bank of Australia	Australia
Bank of New Zealand	18.1	AA	Aa3	-	National Australia Bank	Australia
Bank of Baroda (New Zealand) Limited	0.0	-	-	BBB-	Bank of Baroda	India
Bank of India (New Zealand) Limited	0.0	BBB-	-	-	Bank of India	India
Citibank N A (B)	0.6	A+	A1	A+	Citigroup Inc.	USA
Deutsche Bank Aktiengesellschaft (B)	0.8	A+	Aa3	AA-	Deutsche Bank Aktiengesellschaft	Germany
JPMorgan Chase Bank, N.A. (B)	0.2	AA-	Aa1	AA-	JPMorgan Chase & Co	USA
Kiwibank Limited	3.6	AA-	Aa3	-	New Zealand Post Limited	New Zealand
Kookmin Bank (B)	0.1	A	A1	-	Kookmin Bank	South Korea
Rabobank Nederland (B)	0.6	AAA	Aaa	AA+	Rabobank Nederland	Netherlands
Rabobank New Zealand Limited	1.9	AAA	-	-	Rabobank Nederland	Netherlands
Southland Building Society	0.7	-	-	BBB	Southland Building Society	New Zealand
The Bank of Tokyo-Mitsubishi, Ltd (B)	0.5	A+	Aa3	A	Mitsubishi UFJ Financial Group Inc.	Japan
The Co-operative Bank Limited[3]	n/a	BBB-	-	-	The Co-operative Bank Limited	New Zealand
The Hongkong and Shanghai Banking Corporation Limited (B)	1.2	AA	Aa1	AA	HSBC Holdings PLC	UK
TSB Bank Limited	1.3	BBB+	-	-	TSB Community Trust	New Zealand
Westpac Banking Corporation (B)	4.8	AA	Aa2	AA	Westpac Banking Corporation	Australia
Westpac New Zealand Limited	14.8	AA	Aa3	AA	Westpac Banking Corporation	Australia

1 Registered bank's assets as a proportion of the total assets of the banking system, as at 30 June 2011.

2 Banks marked (B) operate in New Zealand as branches of overseas incorporated banks. All other banks are incorporated in New Zealand.

3 The Co-operative Bank Limited was registered 26 October 2011.

Notes to the graphical appendix

The appendix contains a suite of charts that appear regularly in the *Financial Stability Report*. The charts provide an overview of developments in a set of key economic and financial indicators. Definitions and sources (in italics) are noted below. The data for the charts in this *Report*, including those in the graphical appendix, are available on the Reserve Bank website.

1	Real GDP growth	Annual percentage change in real GDP. *Haver Analytics*.
2	Current account balance	Current account balance as a percentage of GDP, four-quarter total. *Haver Analytics*.
3	Trade-weighted exchange rate indices	Trade-weighted indices, January 1990 = 100. *Haver Analytics.*
4	Short-term interest rates	Yields on 90-day bank bills. *Reuters*.
5	Equity market indices	Morgan Stanley Capital Indices, January 1997 = 100. *Haver Analytics*.
6	House price inflation	Annual percentage change in national house price indices. *Haver Analytics*, *Property IQ*.
7	Household debt and servicing costs	Household debt excludes student loans. Household disposable income is gross before deduction of interest paid and consumption of fixed capital, and is interpolated from March-year data from *Statistics New Zealand*, with *RBNZ* forecasts. The weighted average interest rate is obtained from published RBNZ mortgage data (SSR, part E5.10) for residential mortgages and RBNZ calculations for consumer interest rates.
8	Household assets and liabilities	Housing assets are the aggregate private sector residential dwelling value. Data is from *Property IQ* from 1995, with *RBNZ* estimates based on the House Price Index for prior years. Household financial assets are as published annually by *RBNZ*, with aggregate quarterly figures interpolated prior to 1995. From 1995, quarterly figures are survey-based with minor estimation. Household liabilities are from *RBNZ* series as for figure A7.
9	Property prices	June 1990 = 100. *Property IQ*.
10	Government debt	Net core Crown Debt is debt attributable to core Crown activities and excludes Crown entities and state-owned enterprises. Forecasts are from 2012 onwards and are taken from the Pre-Election Economic and Fiscal Update. *The Treasury*.
11	Government bonds on issue and turnover	Total government securities on issue and New Zealand government bond turnover survey. *Reuters*.
12	Ten-year government bond spreads	Yield on 10-year benchmark New Zealand government bonds, less yield on US and Australian equivalents. *RBNZ*.
13	Yields on New Zealand government securities	One-year series discontinued between May 2009 and July 2010. *Reuters*, *RBNZ*.
14	Non-resident holdings of New Zealand government securities	*RBNZ*.
15	NZD/USD turnover in domestic markets	Three-month moving average. *RBNZ survey.*
16	NZD/USD and implied volatility	Standard deviation implied by three-month NZD/USD options. *Bloomberg*.

17	OCR, estimated business lending rate, and effective mortgage rate	The effective residential mortgage interest rate is item E5.10 from the registered bank aggregate SSR. The estimated business lending rate is determined residually using information from the SSR for total registered bank NZD lending rates, effective residential mortgage rates, and estimates of consumer and interbank rates. It does not include the effects of hedging activity such as interest rate swaps. *RBNZ.*
18	Equity market capitalisation	Total market capitalisation of the 50 largest companies listed on New Zealand Stock Exchange, as a percentage of annual nominal GDP. Latest GDP value is estimated. *Datastream*, *Statistics New Zealand*.
19	System-wide capital adequacy ratios	Capital as a percentage of risk-weighted assets for all locally incorporated banks. *Registered banks' general disclosure statements* (*GDS), Reserve Bank of Australia.*
20	Asset quality	Impaired assets plus past due as a percentage of total lending; specific provisions as a percentage of impaired assets; for all registered banks. *GDS.*
21	Return on assets	Net profits after tax and extraordinary items, as a percentage of average total assets, four-quarter average, for all registered banks. *GDS*.
22	Operating costs to income	Operating expenses as a percentage of total income, four-quarter average, for all registered banks. *GDS*.
23	Interest margin	Net interest income as a percentage of average interest-earning assets, four-quarter average, for all registered banks. *GDS*.
24	Registered bank offshore funding	*RBNZ*.
25	Bank asset composition	As at 30 June 2011. *GDS*.
26	Bank funding composition	As at 31 March and 30 June. *GDS*.
27	Bank asset growth	Year-on-year change in total assets of all registered banks. Gross lending before provisions. *GDS*.
28	Bank market share	Bank assets as a percentage of total assets of registered banks. *GDS*.