
Financial Stability Report

May 2009

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The charts and tables in the appendix to this report use data available as at 24 April 2009.
More recent statistics may be used in the main body of the report.
This report and supporting data are also available on www.rbnz.govt.nz.

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1 Overview

The stability of New Zealand's financial system is being challenged by continuing strains in financial markets, the sharpest contraction in global economic activity in at least 30 years, and an extended period of weakness in the domestic economy. Unlike many other developed countries, however, New Zealand has not experienced significant distress in its banking sector, nor has the availability of credit to households and businesses tightened to the same degree.

As discussed in previous *Reports*, the international financial system has been in crisis since the middle of 2007. Declining asset prices, initially in the US housing market but also more widely, revealed an unsustainable accumulation of debt in many advanced economies. The process of adjustment has placed severe strain on bank balance sheets, particularly in the US and Europe. The collapse of US investment bank Lehman Brothers in September 2008 led to increased concerns over the solvency of many other financial institutions as credit spreads widened further and equity prices declined sharply. Unprecedented government intervention has been required to forestall systemic banking crises in several countries (including the US and the UK), often with substantial use of public funds.

Economic activity has weakened in all regions, pushing the world economy into recession and causing many international banks to experience continued deterioration in asset quality that is further stretching already weakened balance sheets. Lending criteria have tightened and credit growth has slowed as banks attempt to preserve scarce capital and liquidity. Reduced credit availability is, in turn, exacerbating the economic downturn in several major economies, leading some countries to introduce unconventional measures to support the flow of credit to

the real economy. Despite an improvement in world equity markets since March, and some modestly encouraging economic indicators, a global economic recovery appears some way off. Restoring sustainable economic growth is likely to prove a drawn-out process given the overhang of weak balance sheets and impaired credit markets.

The deteriorating global environment has had a major impact on New Zealand, alongside weak domestic demand as households adjust to lower property prices and rising unemployment. Demand for our exports has fallen and international commodity prices have declined, although the depreciation of the New Zealand dollar over the past year has helped to cushion the impact on the tradable sector. Adjustment to a more sustainable level of household and national indebtedness is a necessary aspect of correcting the imbalances in the New Zealand economy, but will entail significant output costs if the adjustment occurs too abruptly. Recent policy actions by the New Zealand authorities, including substantial monetary and fiscal easing, should help to ensure the adjustment remains orderly.

Orderly adjustment is also being supported by the relative health of the domestic banking system. In contrast to experience overseas, it has not been necessary to commit public funds to recapitalise New Zealand's banks. The four largest banks are also benefiting from the resilience of their Australian parents, all of which have retained high credit ratings and strengthened their capital positions over recent months.

Nevertheless, the current economic and financial environment presents significant challenges for the banking sector in New Zealand. Asset quality has deteriorated markedly, albeit from a very strong level, as unemployment

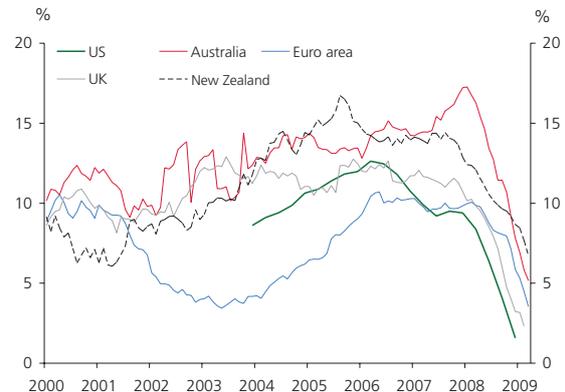
risers and business profitability declines. With the domestic economy expected to remain weak over coming quarters, asset impairments will continue to rise. Banks should ensure that they make adequate provisions and maintain capital levels sufficient to absorb unexpected losses. Exposures to the agricultural and commercial property sectors warrant particular attention.

The banking system has continued to lend to households and businesses over the past year, but credit growth has slowed significantly in recent months. Compared with many other countries, the decline in credit growth in New Zealand has been relatively less abrupt (figure 1.1). Nevertheless, some businesses are reporting significant difficulty in obtaining credit, and lending criteria have tightened throughout the economy. While current economic conditions warrant caution, it is important that New Zealand's banks continue to lend to creditworthy households and businesses.

Vulnerabilities are also apparent on the liabilities side of the New Zealand banks' balance sheets, although policy actions at home and overseas have contributed to a gradual easing of funding and liquidity risks since our November Report. Conditions in offshore credit markets (including the key US commercial paper market) have generally improved in recent months, allowing the New Zealand banks to obtain short-term external funding more easily, and at slightly longer maturities. One bank has now issued offshore term debt under the Crown's wholesale guarantee scheme and we expect other banks reliant on offshore funding to follow suit. In the interim, funding from the major banks' Australian parents, along with the Reserve Bank's expanded liquidity facilities, continue to provide a valuable backstop. Lengthening the maturity structure of wholesale funding remains an important priority for New Zealand's banks and will be a primary focus of the Reserve Bank's new prudential liquidity policy for banks, which is currently being finalised.

The non-bank sector in New Zealand is undergoing protracted adjustment. Liquidity pressures have been eased by the Crown's deposit guarantee scheme, but many non-bank lenders continue to experience deteriorating asset quality. Following the introduction of the guarantee scheme, the Reserve Bank has brought forward implementation of the new prudential regime for non-bank deposit-takers, and is currently consulting on key parts of this framework,

Figure 1.1
Credit growth in selected countries



Sources: National central banks.

Note: Annual growth in intermediated credit to the non-financial private sector.

including capital adequacy. The new regime will not, on its own, resolve the challenges facing the non-bank sector, but should improve its future resilience. The Reserve Bank is also working with the Government on possible successor arrangements for the deposit guarantee scheme, which is scheduled to expire in October 2010.

Assessing and countering potential threats to financial stability in New Zealand remains an ongoing priority for the Reserve Bank, as the effects of the global crisis continue to be felt. We will also be monitoring domestic credit conditions closely, and stand ready to implement additional policy measures, as necessary, to ensure that normal channels of credit intermediation remain open and act to support New Zealand's economic adjustment and recovery.

Alan Bell

Governor

Box A

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

Following amendments to the Reserve Bank Act in 2008, the Bank is required to publish a *Financial Stability Report* every six months.¹ These documents must report on the soundness and efficiency of the financial system and other matters associated with the Reserve Bank's statutory prudential purposes. They must also contain information necessary to allow an assessment of these activities.

Chapters 2-4 of this *Report* highlight that New Zealand's financial system is facing significant challenges, many of which are likely to persist for some time. Faced with this backdrop, we have been scrutinising the efficiency with which financial intermediaries are channelling credit to households and businesses as part of our assessment of the financial system. The Reserve Bank is closely monitoring credit conditions in New Zealand (Box C). We are also looking closely at movements in the cost of credit relative to financial institutions' funding costs.

Since the onset of the global crisis, we have established arrangements for more detailed and regular scrutiny of banks' liquidity and asset quality. Further refinements to the Reserve Bank's market operations, including the introduction of the Term Auction Facility in November (Box D), have contributed to a gradual easing in funding pressures on New Zealand's banks. Collaborative efforts with the payments industry to strengthen market infrastructure are ongoing.

In the prudential policy arena, the Reserve Bank has accelerated implementation of a new prudential regime for non-bank deposit-takers, continued to develop a new liquidity policy for banks, and is working to strengthen coverage of agricultural exposures within New Zealand's implementation of the Basel II capital adequacy framework. The Reserve Bank is also monitoring international initiatives aimed at modernising financial regulation in light of the current financial crisis.

¹ **The Reserve Bank first published a *Financial Stability Report* in October 2004. All previous *Reports* are available on the Reserve Bank website.**

2 The international environment

The international economy has deteriorated significantly since the November *Report*. Reflecting disruptions to the global financial system, output contracted in all the major economies during the fourth quarter of 2008 and this weakness is expected to persist over much of this year. Despite some stabilisation of financial market conditions in recent months, with equity markets recovering some lost ground, a concerted global economic recovery appears to be some way off. The latest IMF forecasts are for further contraction in the global economy throughout 2009, with growth remaining below trend until at least the middle of 2010.

Faced with falling asset prices and stagnant incomes, households and businesses across the developed world are curtailing expenditures and reducing debt accumulation. In some countries, this process is being accelerated by the rising cost and reduced availability of credit as banks seek to repair balance sheets weakened by unprecedented losses over the past 18 months. A pervasive feedback loop has emerged between strains in the financial sector and weakness in the real economy, which will be resolved only through concerted efforts to remove distressed assets from bank balance sheets. Some policy measures have been announced in this regard, notably in the US, but overall progress has been relatively slow thus far.

Significant reductions in official interest rates, in some cases accompanied by unconventional measures to ease monetary conditions further, should provide some support for private demand. Several countries have also announced large fiscal stimulus packages. Concerns have been raised, however, over the resulting increase in government debt, particularly where large amounts of public money have been used to support the financial sector. Emerging market vulnerabilities are also increasing, particularly in Europe, amid falling trade volumes and sharply reduced cross-border capital flows. Importantly for New Zealand, however, the Australian financial system remains relatively resilient despite slower economic growth.

Global banks remain under severe strain and credit conditions have tightened...

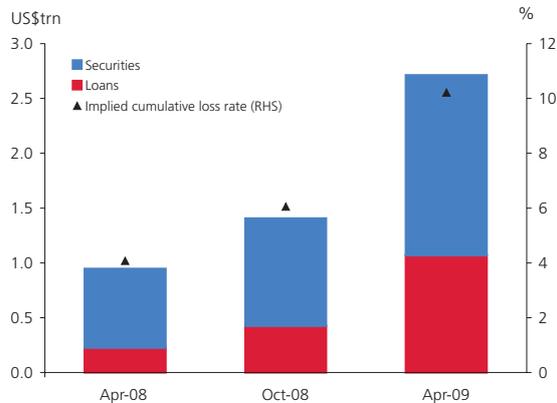
The collapse of Lehman Brothers in September 2008 triggered widespread concerns about counterparty risks and the solvency of many major financial institutions, particularly in the US and Europe. Amid steep declines in bank equity prices and renewed pressures in international money markets, several governments adopted extraordinary policy measures to forestall systemic banking crises during the fourth quarter of 2008. Although varying in detail across countries, most of these measures were aimed at recapitalising banks weakened by large credit losses incurred over the past 18 months. Latest IMF estimates anticipate

that aggregate losses on US-originated assets will reach US\$2.7 trillion, or nearly three times the original estimate (figure 2.1), with most of these losses falling on the global banking system.¹

Global banks have responded to pressures on their balances sheets by hoarding liquidity and reducing loan growth through a combination of higher interest rates and more restrictive lending criteria. Credit conditions have tightened significantly in the major advanced economies (figure 2.2), with some borrowers unable to obtain new

¹ Including European- and Japanese-originated assets, the IMF estimates total mature market credit losses of US\$4.1 trillion, with an additional US\$300 billion losses on exposures to emerging markets.

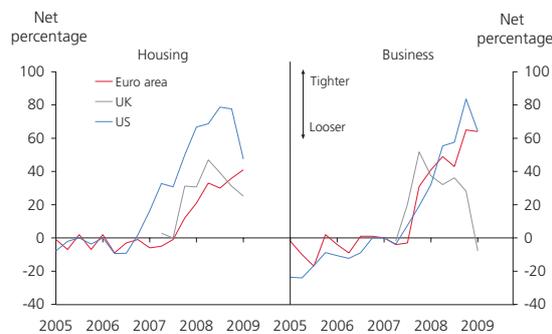
Figure 2.1
IMF estimates of potential write-downs on US-originated assets, 2007-2010



Source: IMF *Global Financial Stability Report (GFSR)*.
Note: Implied cumulative loss rate is total potential write-downs divided by total outstanding loans and securities.

loans or renew existing bank facilities on affordable terms. Rapidly slowing credit growth (figure 1.1 in Chapter 1) is weighing on economic activity, particularly in the US and the UK, whose economies each contracted by more than 1 percent in the fourth quarter of 2008.

Figure 2.2
Survey measures of lending standards



Sources: US Federal Reserve, Bank of England, ECB.
Note: Percentage of survey respondents reporting tighter standards minus percentage reporting looser standards.

...triggering a negative feedback loop between the financial sector and the real economy...

Previous *Reports* have discussed the origins of the global financial crisis, the roots of which included a sustained period of debt accumulation and increasing financial leverage, a strong appetite for risk and poorly understood financial

innovation. The onset of the crisis, initially triggered by a weakening US housing market, rapidly percolated through global financial markets via a range of complex channels. Over the past year, the macroeconomic consequences have been increasingly exposed as impaired credit markets, losses of financial wealth and collapsing confidence have led to a sharp fall in economic activity in most countries and a marked decline in international trade. A pervasive feedback loop has since emerged in several major economies. As economic activity weakens, asset quality has continued to deteriorate, reinforcing existing pressures on bank balance sheets and leading to a further tightening in credit conditions. Loan delinquencies are climbing rapidly in the US and several European countries, with falling commercial and residential property prices, particularly in the UK, exacerbating banks' credit losses. US banks continued to report significant losses in the fourth quarter of 2008.

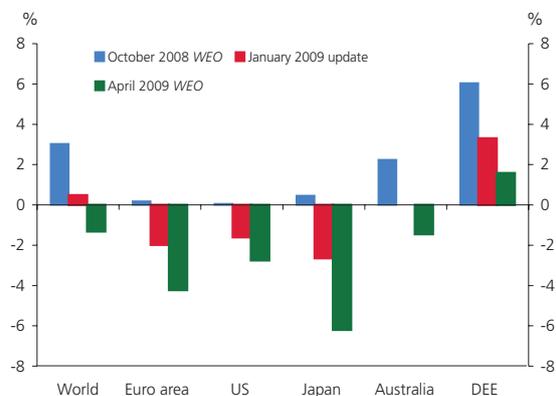
As these feedback loops have intensified, forecasts for global growth have been revised sharply downward. The IMF, for example, now expects the world economy to shrink 1.3 percent in 2009, led by contractions of more than 2 percent in the US and Euro area, and in excess of 6 percent in Japan (figure 2.3). If realised, these forecasts would, by some measures, constitute the deepest global recession in the post-War era. Given that recessions combined with financial crisis are typically deeper and more protracted than in 'typical' cycles, global growth seems likely to remain below trend for an extended period. In the interim, tentative signs of improvement and bouts of optimism are likely to be punctuated by setbacks and disappointments. Although there have been some modest signs that the rate of economic contraction in the US may now be starting to slow, a move to a sustained recovery appears some way off.²

² See chapter 3 of the April 2009 IMF *World Economic Outlook (WEO)*, "From recession to recovery: how soon and how strong?" for an empirical analysis of recessions and subsequent recoveries in 21 advanced economies since 1960.

...amid widespread balance sheet restructuring.

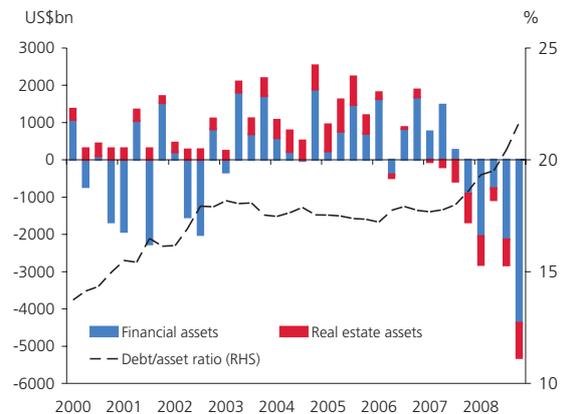
Over recent years, asset price appreciation, steady economic growth, rapid financial innovation and low interest rates encouraged banks, other financial institutions, households and (to a lesser extent) firms to leverage their balance sheets by increasing their borrowing. Once asset prices started to decline, however, high debt burdens were revealed to be unsustainable, especially as subdued economic activity began to limit income growth. In the US, for example, falling property and equity prices have reduced household net worth by 20 percent since 2007 and increased the household debt-to-asset ratio to well above its long-term average (figure 2.4). Although asset prices may recover somewhat over the medium term, reducing this ratio back toward more sustainable levels is likely to require significant debt reduction through lower consumption and higher savings. Similar balance sheet adjustments are underway in other advanced economies, many of which are facing significant deflationary pressures at present.

Figure 2.3
Evolution of IMF growth forecasts for 2009



Source: IMF WEO.
Note: No specific forecast for Australia was included in the IMF's January 2009 update. DEE refers to Developing and Emerging Economies.

Figure 2.4
Changes in US household asset values



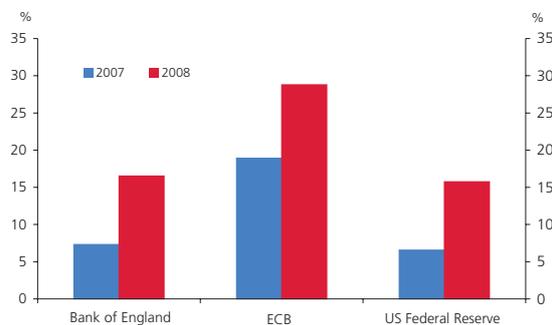
Source: US Federal Reserve, RBNZ calculations.
Note: Bars represent holding gain and losses on household assets.

Policymakers have delivered significant fiscal and monetary stimulus...

Governments and central banks have responded swiftly to counter the deflationary effects of weaker activity associated with these balance sheet adjustments. Rapid reductions in official interest rates have taken rates close to zero in several major economies, leading some central banks, notably the US Federal Reserve and the Bank of England, to adopt unconventional policy measures to improve credit availability and reduce longer-term borrowing costs. These quantitative easing measures typically involve outright purchases of government bonds and corporate debt, including some relatively illiquid and lower-quality instruments that would not normally feature in central banks' market operations. Asset purchases of this kind have resulted in a rapid expansion of central bank balance sheets (figure 2.5) that will ultimately need to be reversed once economic stability is restored.

Large fiscal stimulus packages have been introduced in many countries, often on a scale of several percentage points of national GDP (see figure 3.4 in Chapter 3). Although necessary to offset current weakness in private demand, there is a delicate balance between avoiding a sharp contraction in economic activity and allowing accumulated imbalances to correct. Moreover, aggressive use of discretionary fiscal policy to stimulate growth, particularly when combined with the costs of direct assistance to the financial sector, has highlighted the issue of public debt sustainability.

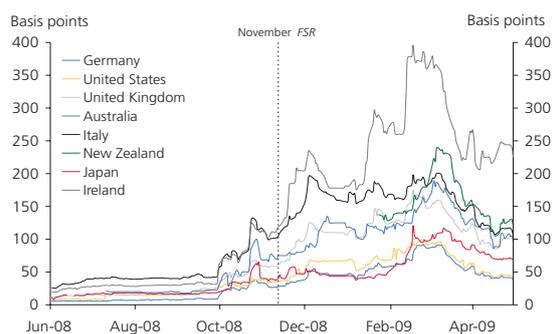
Figure 2.5
Expansion of central bank balance sheets
(percent of GDP)



Source: IMF International Financial Statistics, Bank of England.
 Note: As at end of December.

Spreads on sovereign credit default swaps (CDS) have risen significantly since the November Report (figure 2.6). These spreads should be interpreted with caution as they can reflect a general increase in investor risk aversion as well as a perceived increase in default risk. Particularly in the case of small countries such as New Zealand, the market for these instruments also tends to be quite illiquid. Nevertheless, some governments are facing pressure to commit to a process of fiscal consolidation to avoid credit rating downgrades that would place upward pressure on borrowing costs.

Figure 2.6
Sovereign CDS spreads



Source: Bloomberg.
 Note: Spreads on five year senior debt.

...and developed measures to strengthen national banking systems.

Several countries have also developed policy proposals for rebuilding confidence in their national banking systems. Prominent examples include the Financial Stability Plan in the US and the UK Asset Protection Scheme. Although

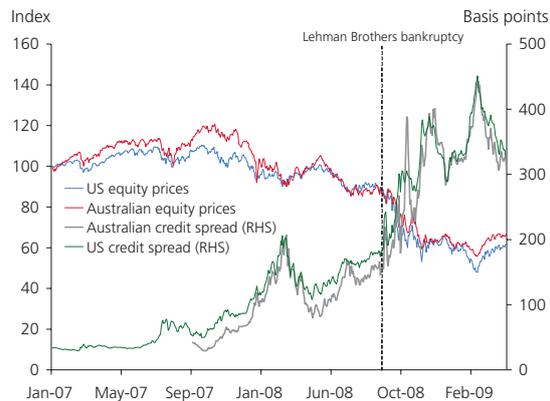
significantly different in operational detail, these proposals aim to purge bank balance sheets of the illiquid assets that are constraining lending capacity. Successful completion of this process is generally recognised as a precondition for economic recovery, but progress has been relatively slow thus far and significant uncertainties remain. Under the US Financial Stability Plan, for example, it is unclear whether banks will be prepared to sell illiquid assets at prices offered by the Public-Private Investment Partnerships established to purchase them.

It also seems likely that some international banks will require additional capital support. Less than a third of the total bank losses expected by the IMF have been recognised thus far. Some major banks have recently reported stronger than expected operating profits and successfully raised equity capital from private investors, but others will likely face greater challenges in replenishing their capital buffers. The prospect of governments assuming larger ownership stakes in (or even nationalising) distressed institutions continues to weigh on bank equity prices.

Despite some recovery in recent weeks, financial asset prices have fallen...

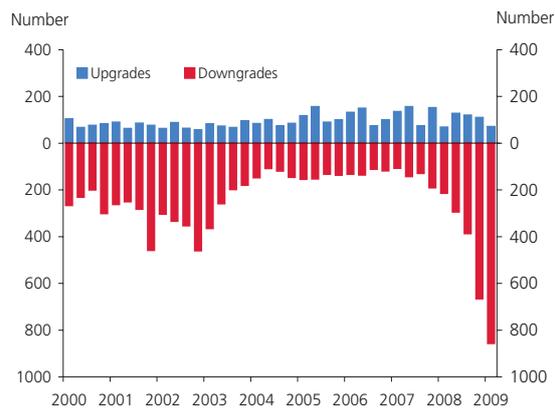
Continuing strains in the global banking system and the rapidly weakening economic outlook have pushed financial asset prices lower. Since reaching multi-year lows in early March, major equity indices have regained some lost ground, but remain lower than immediately before the collapse of Lehman Brothers in September last year (figure 2.7). Credit markets have also remained under pressure, with spreads widening further as the weak economic environment challenges the finances of many corporate borrowers and credit rating downgrades substantially exceed upgrades (figure 2.8).

Figure 2.7
International equity prices and credit spreads



Source: Bloomberg.
Note: S&P 500 and ASX-200 equity indices rebased to 100 at January 2007; North American CDX and Australian iTraxx credit indices.

Figure 2.8
Corporate rating upgrades and downgrades

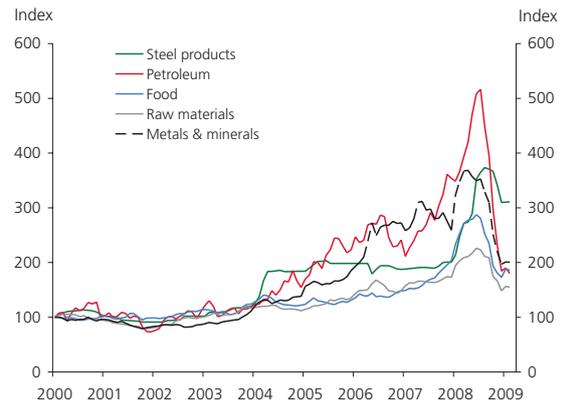


Source: Standard & Poor's (S&P).
Note: Changes in S&P ratings on US corporate borrowers.

Government yield curves have steepened significantly since the November *Report*. Deep cuts in official interest rates have pushed short-term rates close to zero, while at longer maturities, increased debt issuance (as governments finance fiscal stimulus packages) has placed upward pressure on yields. More recently, the introduction of quantitative easing programmes in the US and the UK has reduced longer-term yields somewhat, but the effect appears to have been muted by rising inflation expectations amid concerns that central banks will not be able to remove monetary stimulus sufficiently quickly once economic growth resumes and inflationary pressures become apparent. Uncertainty

regarding the longer-term outlook for inflation has supported the price of gold, but international commodity prices have generally moved lower as the global economic environment has deteriorated (figure 2.9).

Figure 2.9
International commodity price indices
(January 2000 = 100)

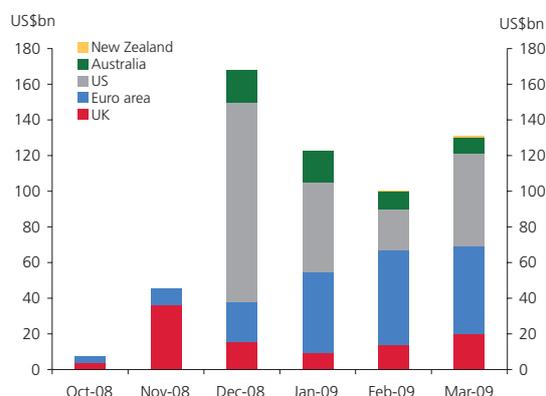


Sources: World Bank, Haver Analytics.

...but conditions in bank funding markets have started to ease.

Although still elevated by historical standards, risk premia in key bank funding markets have fallen steadily over recent months, aided in large part by government intervention. Immediately after the collapse of Lehman Brothers, several advanced economies (including New Zealand) established schemes allowing banks to issue term debt under government guarantee. These schemes have enabled banks in the US, Europe and Australasia to raise more than US\$500 billion in guaranteed debt since December (figure 2.10), substantially reducing their reliance on shorter-term sources of funding and helping to relieve pressures in international money markets. Spreads between benchmark money market rates and expected official policy rates have generally dropped below 100 basis points.

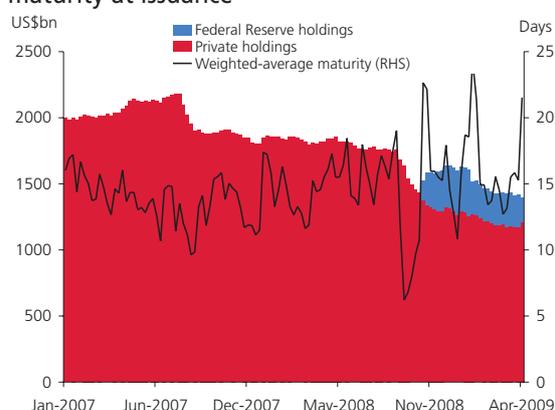
Figure 2.10
Government guaranteed debt issuance by banks
(by country of issuer)



Sources: Bloomberg, RBNZ calculations.

Conditions have also improved in the US commercial paper (CP) market, which is a key source of short-term funding for the major Australasian banks, as well as for many US and international firms. The stock of CP outstanding has been falling steadily since the middle of 2007, but the rate of decline increased sharply after the failure of Lehman Brothers, as key investors, notably US money market mutual funds, withdrew from the market. Most CP issuers, including the major New Zealand banks, were unable to borrow for terms longer than a few days. Investor concerns have since subsided somewhat, partly assisted by a Federal Reserve programme of direct purchases of CP starting in November. Aggregate purchases peaked at US\$351 billion in January

Figure 2.11
US commercial paper outstanding and average maturity at issuance



Source: US Federal Reserve, RBNZ calculations.

Note: Weekly data, not seasonally-adjusted. Weighted average maturity is estimated from daily issuance data, assuming the typical maturity of longer-dated CP is 90 days.

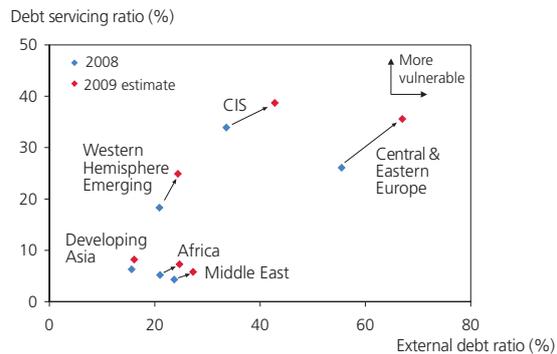
2009, equivalent to about 22 percent of the market (figure 2.11). As well as slowing the rate at which the CP market was shrinking, the Federal Reserve's support has allowed issuers to extend the maturity of their borrowing.

Emerging markets are facing increased financial pressures.

The sharp decline in economic activity in developed economies has spread to emerging markets, with export growth slowing rapidly and capital inflows substantially reduced. Lower international demand for manufactured goods has had a particularly severe effect on the Asian region, with some countries recording double-digit percentage declines in exports and industrial production. Commodity producers have generally been less badly affected. A shortage of trade credit appears to be accentuating the challenges facing several economies in emerging Asia, many of which rely heavily on exports for growth. Both the IMF and the WTO forecast significant declines in trade volumes during 2009. Growth in the Chinese economy has slowed significantly, but aggressive policy stimulus measures have boosted domestic demand, providing some support to other economies in the region.

Some Asian economies are also being affected by lower capital inflows, although in general the region is less vulnerable to a 'sudden stop' than other parts of the world, notably emerging Europe and the former Soviet Union (figure 2.12). While there are significant differences between countries, a number of economies in emerging Europe are heavily indebted and face significant external financing requirements, particularly in the corporate sector. Countries such as Latvia and Ukraine have approached the IMF for assistance, and others seem likely to follow. A debt crisis in one or more countries in emerging Europe would have a significant impact on European banks, many of which (particularly in Austria) are heavily exposed to the region.

Figure 2.12
Emerging market external vulnerabilities

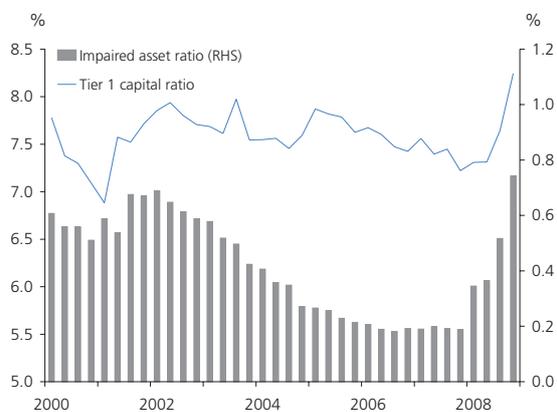


Source: IMF April 2009 *WEO*.
Note: External debt ratio is external debt/GDP. Debt servicing ratio is interest payments/exports. CIS denotes Commonwealth of Independent States.

The Australian economy is slowing but the financial system remains relatively resilient...

Falling global demand and lower commodity prices have also affected the Australian economy, with the adverse impact reinforced by weaker domestic spending. Expansionary fiscal and monetary policy should help to contain the slowdown in activity, but negative growth is likely through 2009, with the IMF currently anticipating a 1.4 percent contraction (figure 2.3). Although weak in absolute terms, the Australian economy is expected to perform better than most other advanced economies, due in part to a less pronounced drag from tightening credit conditions. While Australia's banks have tightened loan criteria over recent months and credit

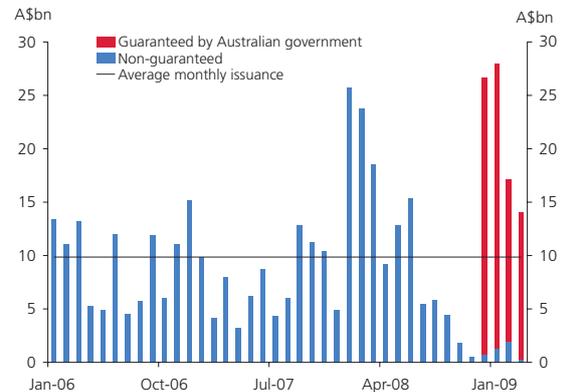
Figure 2.13
Australian banks' impaired assets and capital ratios



Source: Reserve Bank of Australia.
Note: Impaired asset ratio is impaired assets relative to total assets.

growth has slowed quite significantly (figure 1.1 in Chapter 1), there is limited evidence of adverse feedback effects between the real economy and the financial sector thus far.

Figure 2.14
Australian banks' monthly bond issuance



Sources: Bloomberg, Reserve Bank calculations.
Note: Monthly average calculated over the period January 2006 to September 2008 (prior to the introduction of the guarantee scheme).

More generally, the Australian financial system, including the four major banks with subsidiaries in New Zealand, has remained relatively resilient. While asset quality has started to deteriorate (figure 2.13), the banking system is not materially exposed to the offshore structured credit products at the heart of the present financial crisis. Core capital ratios are solid and, in contrast to experience internationally, the Australian government has not been required to use public funds to recapitalise the banking system. The major banks remain profitable and have been able to strengthen their capital positions by raising about A\$18 billion in equity finance from private investors during the second half of 2008. Funding risks have also diminished, with Australian banks collectively issuing more than A\$80 billion in term debt under guarantee from the Australian government between December 2008 and March 2009 (figure 2.14).

Given weaker economic conditions, some Australian households and businesses are experiencing increased financial strains. Relative to many other countries, however, the economic downturn is being muted by several factors. The housing market, though softening, remains resilient, with outright declines in prices generally concentrated in higher value properties and in certain geographic regions,

while most business balance sheets are in relatively good condition following previous years of solid profit growth.

...although risks are evident in some areas.

The overall health of the Australian financial system has an important bearing on New Zealand's banking system given the importance of the Australian-owned subsidiaries. Overall, the Australian system appears relatively well-placed to absorb rising credit losses. Nevertheless, risks and vulnerabilities are building and Australian banks are likely to experience further deterioration in asset quality as unemployment continues to rise and business profitability weakens. In certain sectors, notably vehicle retailing, financial pressures have increased due to the actual and/or anticipated withdrawal of foreign lenders from segments of the Australian credit market. The Australian government has responded with a range of measures providing financial support to industries adversely affected. One key concern is to minimise the impact on the commercial property sector, which has experienced a sharp rise in delinquent loans over recent months.

Attention turns to forming a new international financial architecture.

In early April, a Group of Twenty (G20) summit in London discussed building a new global financial architecture that can help prevent a recurrence of the current financial crisis and ensure the efficient regulation of financial markets and institutions irrespective of location. The G20 resolved to build a stronger, more globally consistent supervisory and regulatory framework. This includes the creation of the Financial Stability Board (FSB) to replace the Financial Stability Forum. The membership of the FSB includes the central banks, finance ministries and supervisory authorities of the G20 countries, along with Spain, the Netherlands, Singapore and Switzerland. The IMF, World Bank, ECB, OECD, the Basel Committee on Banking Supervision and the Bank for International Settlements will also be represented. The G20 also undertook to strengthen the IMF, significantly increasing its financial resources and agreeing to initiate other reforms.

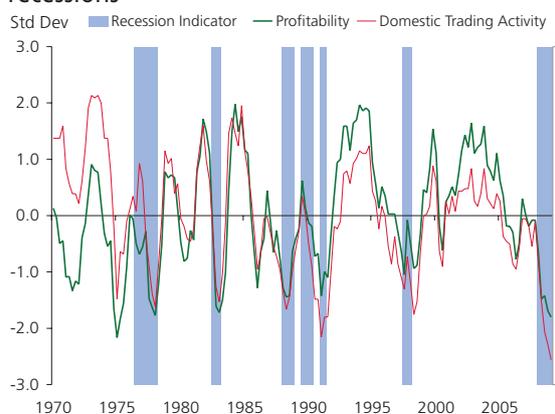
The Reserve Bank welcomes these initiatives and will continue to monitor the evolving global framework while formulating local policy.

3 New Zealand's economy and financial markets

New Zealand's economy has been in recession over the past year. Domestic demand is weak as households adjust to lower property prices and rising risk of unemployment, while export growth is being constrained by subdued activity in trading partner economies. Falling commodity prices are also weighing on export earnings, especially in the agricultural sector, although the decline in the New Zealand dollar over the past year is providing some support. Indicators of business activity have dropped to levels comparable to the early 1990s recession, and survey measures of profitability expectations are at historic lows (figure 3.1). An increasing number of households and businesses are likely to encounter challenges servicing debt, although lower interest rates and expansionary fiscal policy should help to ease financial pressures at the margin.

Correcting accumulated imbalances in New Zealand's economy will require adjustment to lower levels of debt relative to income, particularly in the household sector, and private saving rates have already started to increase. However, an excessively rapid increase in private saving would entail significant economic costs, particularly as New Zealand's high level of external debt limits the extent to which macroeconomic policy can respond further. The relative health of the core domestic financial system has made an important contribution to ensuring the adjustment has been orderly thus far, with credit conditions in New Zealand tightening less significantly than in many other advanced countries. Although caution is warranted in the current climate, it is important that New Zealand's banks and other lenders continue to lend to fundamentally creditworthy households and businesses.

Figure 3.1
Profitability and domestic trading activity in recessions



Sources: NZIER Quarterly Survey of Business Opinion (QSBO) and Hall and McDermott (2007).¹

Note: Recessions are identified where the level of GDP declines over two quarters. QSBO indicators are shown in standard deviations from the mean.

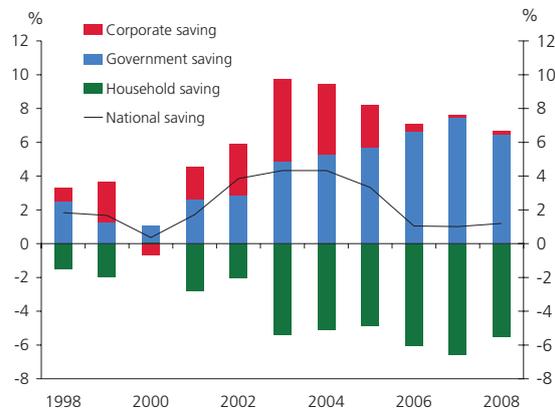
New Zealand's debts to the rest of the world remain large...

As discussed in previous Reports, debt levels are high in New Zealand, and there is significant reliance on offshore financing. Following an extended period of large current account deficits, net international liabilities had increased to more than 90 percent of GDP by the end of 2008. With international capital less readily available than in recent years, financing such a large debt burden is likely to become more challenging.

Current account deficits reflect an excess of national investment over national savings. Despite positive contributions from the government and business sectors, record levels of household borrowing, driven in the main

¹ Hall, V and C J McDermott (2007), "A Quarterly Post-World War II Real GDP Series for New Zealand", Motu Working Paper 2007/13, Motu Economic and Public Policy Research.

Figure 3.2
Estimated saving rates by sector
(percent of GDP)



Sources: Treasury, Statistics New Zealand, RBNZ calculations.

Note: Household saving and government saving are from the Statistics New Zealand Institutional Accounts. These are currently experimental and under further development. National saving is net national investment less the current account deficit. Corporate saving is estimated residually.

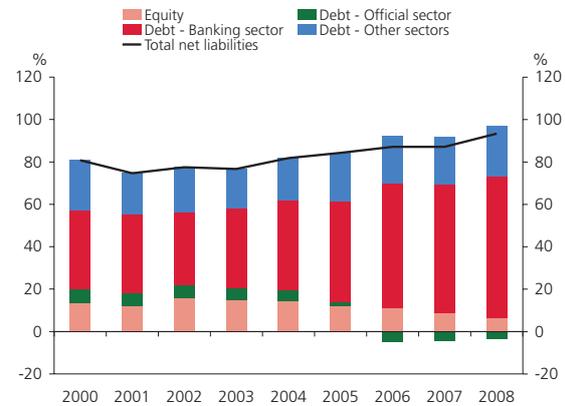
by rising property prices, acted to depress the national savings rate in recent years (figure 3.2). At the same time, national investment was relatively strong. These trends are now reversing as households reduce borrowing and fiscal policy becomes more expansionary. A steady improvement in the private saving rate (led by households), combined with weakness in investment, is expected to narrow the current account deficit over the next few years, and consequently slow the rate of external debt accumulation.

...although risks are mitigated by 'related party' lending and hedging.

Nevertheless, New Zealand's stock of external liabilities will remain substantial for the foreseeable future. A large proportion of these liabilities are in the form of debt rather than equity, primarily in the private sector (figure 3.3). Some of these debt liabilities are owed to the offshore parents of New Zealand's major banks and other foreign-owned firms, meaning that rollover risks are somewhat less substantial than in other countries with similar levels of debt. Moreover, almost all of New Zealand's external debt liabilities are either denominated in New Zealand dollars or fully hedged against exchange rate risk.²

² For further discussion, see Bedford, P. "The global financial crisis and its transmission to New Zealand – an external balance sheet analysis", Reserve Bank Bulletin, December 2008.

Figure 3.3
Composition of New Zealand's net international liabilities



Source: Statistics New Zealand.

Note: Official sector includes general government and the Reserve Bank. December years.

Despite these mitigating factors, the scale of New Zealand's external debt liabilities implies significant exposure to developments in international capital markets. Access to these markets is underpinned by economic flexibility (including the floating exchange rate), sound policy frameworks, and the stability of the domestic banking system. The relative strength of the Crown's fiscal position is also an important factor.

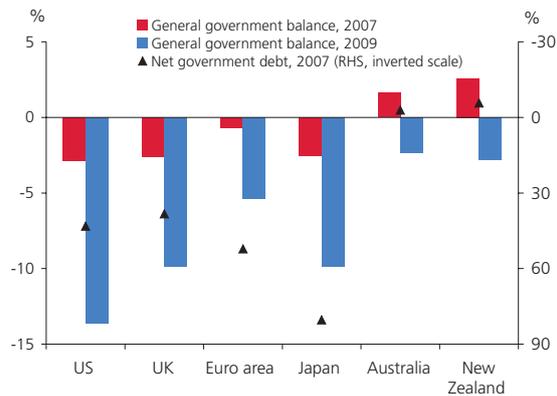
Fiscal stimulus should support the economy, but the Crown accounts are weakening.

Fiscal policy is helping to support domestic demand with sizeable increases in government spending since early 2008 and recent cuts to personal income taxes. Compared to other advanced economies, the New Zealand government entered the recession with smaller deficits relative to GDP than in many countries, particularly the US and UK (figure 3.4), and also had a positive net asset position (while many other governments had substantial net debt). Nevertheless, a combination of easier fiscal policy and weaker economic activity is expected to see the fiscal position deteriorate sharply over the next few years at a time when government debt sustainability is increasingly under the spotlight. A further deterioration in New Zealand's fiscal accounts would likely attract the scrutiny of international investors and external credit rating agencies, particularly if improvements

in the current account deficit do not materialise to the extent expected. These considerations suggest that there is limited room for further fiscal stimulus and underscore the importance of ensuring a credible fiscal strategy over the medium to longer term.

Figure 3.4

Fiscal outlook in selected economies



Source: IMF April 2009 WEO, The New Zealand Treasury, Australian Budget website.

Note: General government balances for 2009 are IMF forecasts. Data refer to calendar years, except net government debt for Australia and New Zealand (June years). New Zealand net government debt includes NZ Super Fund.

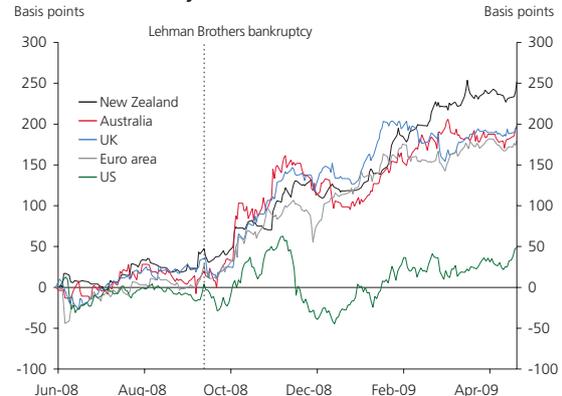
Easier monetary policy has pushed wholesale interest rates lower...

Wholesale interest rates in New Zealand have been unusually volatile since our November Report, reflecting a combination of global developments and factors particular to the local market. The Reserve Bank has lowered the Official Cash Rate (OCR) by a total of 400 basis points over the past six months, and shorter-term wholesale rates have fallen by a similar amount. At longer maturities, however, swap rates have fallen less materially, causing the swaps curve to steepen. While similar trends have been evident in most developed economies since the Lehman Brothers failure, the New Zealand market has experienced the most significant relative movement between short- and long-term swap rates (figure 3.5).

During the early part of 2009, longer-term swap rates were pressured lower as market participants sought to receive fixed interest rates in anticipation of further reductions in the OCR. A general lack of market liquidity during this period was exacerbated by the withdrawal from the New Zealand market of many offshore participants, such as hedge funds,

Figure 3.5

Increase in the slope of international swaps curves since May 2008



Sources: Bloomberg, Reserve Bank calculations.

Note: Cumulative changes in spread between ten- and two-year swap rates.

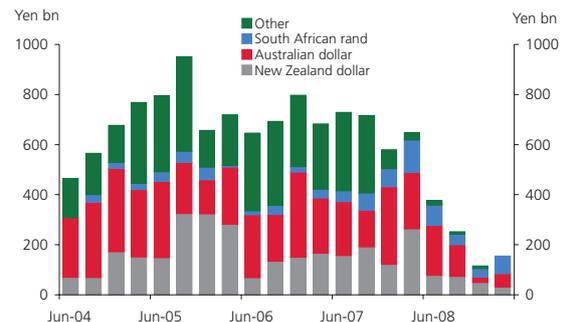
following the collapse of Lehman Brothers. There has also been reduced participation from overseas institutions that issue New Zealand dollar-denominated securities in offshore markets (such as Eurokiwi and Uridashi bonds) and hedge their interest payments through the New Zealand wholesale market. Issuance of these securities is currently running well below levels seen throughout 2007 and early 2008 (figure 3.6), reflecting reduced investor appetite for 'carry trade' strategies as interest rate differentials narrow and foreign exchange markets remain volatile.

...although longer-term rates have risen more recently.

These patterns were, however, reversed during March and April, with swap markets becoming increasingly dominated by banks and corporate borrowers seeking to lock in historically low interest rates. There was also evidence that mortgage borrowers were lengthening the terms of their

Figure 3.6

Uridashi bond issuance by currency

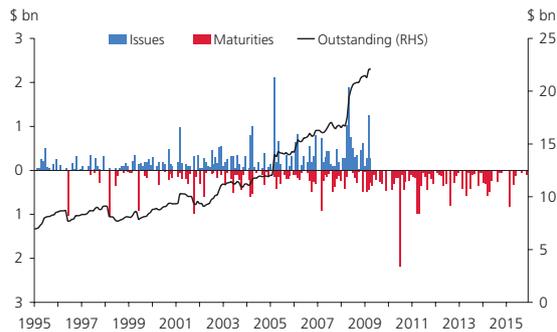


Sources: Bloomberg, Reuters, RBNZ calculations.

Note: Three-month cumulative totals.

fixed interest rate mortgages, requiring banks to increase their hedging flows. This behaviour appears to have been fuelled by perceptions that reductions in short-term interest rates will not be sustained, although the Reserve Bank has indicated that the OCR is likely to remain low for an extended period.

Figure 3.7
New Zealand corporate bond market



Source: Reuters.

Note: Figures exclude bonds issued prior to 1989.

The domestic corporate debt market continues to expand.

While New Zealand’s banks have continued to lend to households and businesses, it is evident that loan criteria have tightened and many corporate borrowers are now facing higher interest margins over wholesale rates and increased fees for bank credit. Accordingly, several large New Zealand firms, including Fonterra and Contact Energy, have accessed the local corporate bond market to diversify their funding sources (figure 3.7). Over time, continued growth in issuance should help to build market liquidity and broaden the investor base for corporate debt in New Zealand.

The recent depreciation in the New Zealand dollar has been relatively orderly thus far...

In foreign exchange markets, the New Zealand dollar (NZD) has depreciated broadly against most major currencies since the previous Report, driven mainly by weakening risk appetite. Although the relationship has broken down at certain times, movements in the NZD have been closely correlated with global equity markets over recent months. As major equity indices continued their decline during the early part of 2009, the NZD fell from about US\$0.60 to US\$0.50, before recovering somewhat as equity market

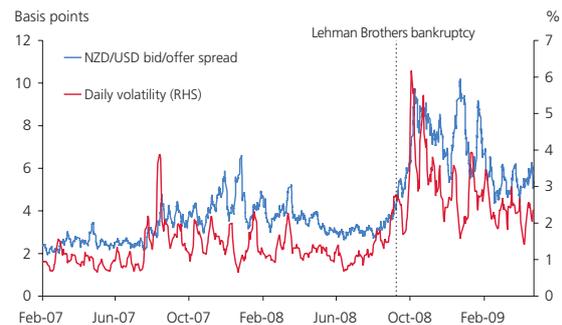
sentiment improved from mid-March onward. As well as supporting the tradable sector, the decline in the NZD has eased bank funding pressures at the margin by reducing the amount of US dollar debt New Zealand’s banks must issue to raise a given amount of local currency funds.

From a more medium-term perspective, a fall in domestic interest rates relative to other major economies and the associated fall in demand for NZD denominated assets have placed further downwards pressure on the currency. The spread between 2-year wholesale (swap) interest rates in the US and New Zealand narrowed by around 130 basis points between January and March, but has since widened slightly.

...and market liquidity has improved.

New Zealand dollar liquidity conditions have improved to some degree in spot, FX forward and FX swap markets, leading to a decline in market volatility (figure 3.8). However, NZD liquidity conditions remain constrained and volatility remains elevated relative to the levels seen prior to the bankruptcy of Lehman Brothers.

Figure 3.8
Bid-offer spreads for the NZD/USD and daily volatility (5-day moving averages)



Source: Reuters, RBNZ calculations.

Note: Daily volatility is measured by the intraday spread (difference between highest and lowest prices), expressed as a percentage of the closing price.

Household balance sheets remain under pressure despite lower interest rates...

Following a sustained period of rising prosperity, household net worth declined in 2008 in line with continuing falls in residential property prices (table 3.1). The outlook for household income has also become more uncertain as the

Table 3.1
Household balance sheet

As at December	\$ billion 2008	Share of total	Growth (annual percent change)		Average annual growth rate
			2008	2007	1998-2008
Total household assets	762	100%	-6.3	8.8	8.5
Dwellings	568	75%	-7.5	9.8	9.9
Financial assets	194	25%	-2.5	5.9	5.3
Total household liabilities	177	100%	4.1	11.8	10.8
Housing related	163	92%	4.5	12.2	11.1
Consumer	14	8%	0.0	7.7	8.0
Household net worth	585	-	-9.0	8.1	7.9

Source: NZIER, Quotable Value Ltd., RBNZ calculations.

Note: Growth rates for December years. 2008 figures are preliminary and may differ slightly from final RBNZ published figures. The table captures the major components of household financial assets, but excludes unlisted equities and some assets held overseas.

labour market has weakened. A period of consolidation is now underway, with households exercising increased caution, curtailing spending (especially on discretionary items), increasing saving where possible, and reducing indebtedness.

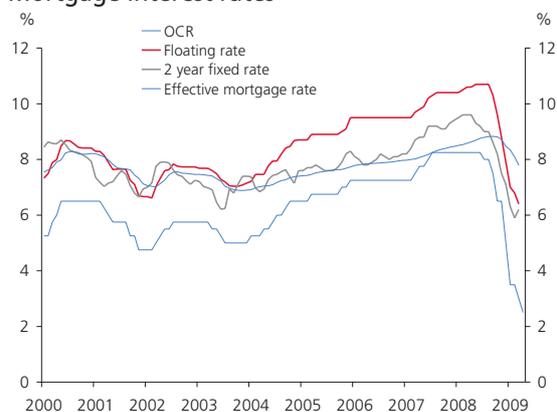
For most households, the transition to more sustainable debt levels can be achieved relatively smoothly, especially as reduced interest payments and personal tax cuts ease near-term pressures on household budgets. Benchmark mortgage rates offered to new borrowers have dropped from above 9 percent in mid-2007 to around 6 percent currently (figure 3.9). The average interest rate paid on all outstanding

mortgages has fallen less rapidly, but will continue to decline as more fixed-rate mortgages expire and are replaced on more attractive terms for the borrower. Of the \$150 billion in residential mortgages outstanding in May 2008, for example, nearly \$40 billion was originally scheduled to move to lower interest rates over the next 12 months, although some households appear to have migrated to lower rates earlier than scheduled by paying penalty fees to break fixed-term deals early.

...especially as unemployment rises.

There is, however, a substantial minority of households that are likely to experience more severe financial distress, particularly as unemployment rises.³ The unemployment rate in New Zealand climbed to 5 percent in the first quarter of 2009 – a level that remains low by historical standards, but is nonetheless more than a percentage point higher than a year earlier (figure 3.10). Further increases in unemployment are anticipated while economic activity remains subdued. The labour force participation rate has remained relatively high, which may reflect more households seeking supplementary sources of income as financial constraints begin to bite.

Figure 3.9
Mortgage interest rates

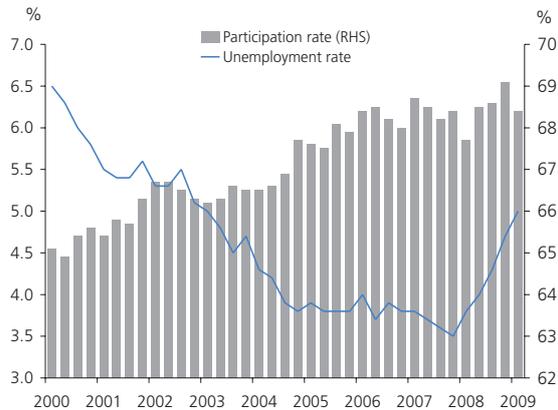


Source: Reuters, RBNZ.

Note: Floating and two-year fixed rates available to new borrowers.

³ Some households, notably in older age groups, are also experiencing falling disposable incomes as interest earnings on savings and other investments decline.

Figure 3.10
Unemployment and participation rates



Source: Statistics New Zealand.
Note: Seasonally-adjusted.

Unemployment will typically strain households' capacity to service mortgage and consumer debt. As residential property prices continue to fall and banks and other lenders apply credit criteria more rigorously, there is also less scope for distressed borrowers to temporarily increase debt (by refinancing) in order to remain current on repayment obligations as they fall due.⁴

Mortgage arrears have started to rise, albeit from a low base (see Chapter 4), and further increases are likely, although recent Reserve Bank analysis reveals that the fraction of mortgage-holders vulnerable to a further modest deterioration in the economic environment (those with high debt servicing ratios and high loan-to-value ratios) is relatively small. These findings do not, however, consider mortgages secured on investment properties, where borrowers may be more vulnerable.⁵

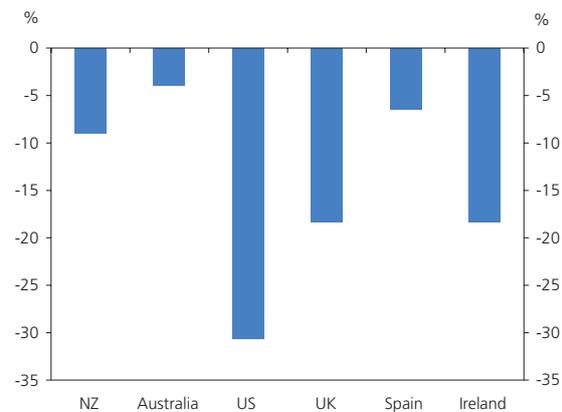
House prices continue to fall...

New Zealand house prices were around 9 percent lower in the final quarter of 2008 compared with their peak a year earlier – the largest annual drop in property values since comprehensive records began in the 1960s. More timely indicators suggest that the downward momentum

⁴ Refinancing existing debt by taking out a new (larger) mortgage against a property that is rising in value can be considered as a type of mortgage equity withdrawal discussed in previous Reports.

⁵ See Kida, M. "Financial vulnerability of mortgage-indebted households in New Zealand – evidence from the Household Economic Survey", Reserve Bank Bulletin, March 2009.

Figure 3.11
Nominal house prices in selected countries
(decline to date from peak)



Source: National sources, RBNZ calculations.
Note: Case-Shiller measure for US; Nationwide for UK; QV for New Zealand.

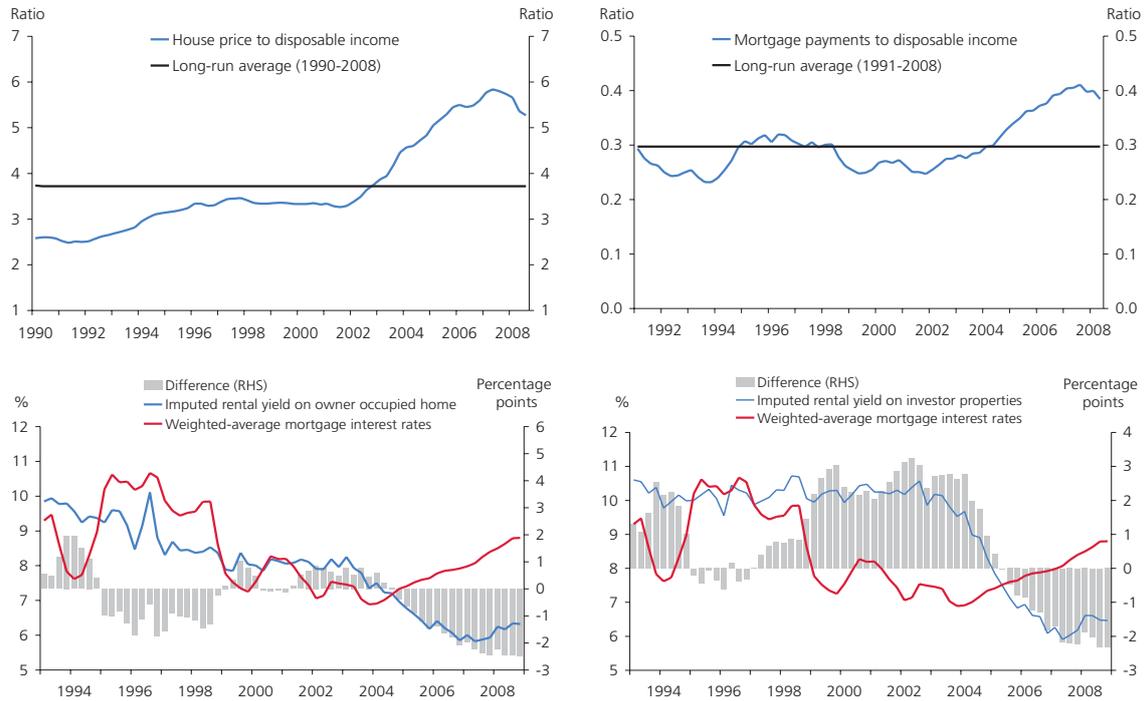
has continued in the early part of 2009. Nevertheless, the correction in the New Zealand housing market to date has been relatively modest compared with international experience (figure 3.11).

Despite recent declines, house prices still appear to be somewhat overvalued relative to fundamentals (figure 3.12). Lower mortgage rates are likely to reduce households' debt servicing burden back towards the historical average, but further falls in property values will be required to return house prices to more normal levels relative to disposable income. There are, however, some tentative signs that the price declines may start to moderate over the next few months, with buyer demand supported by inward migration and lower interest rates. Real estate agents reported a sharply higher number of residential property sales in March and the value of mortgage approvals has increased. Moreover, the New Zealand banks' ongoing commitment to work with distressed borrowers and avoid unnecessary mortgagee sales should help to avoid a surge in supply that would further depress prices – a dynamic that has been clearly evident in the US.

...and mortgage lending criteria have tightened, but demand for credit is also weaker...

New Zealand households continue to have access to credit, although the banks have clearly tightened mortgage lending standards in response to the more challenging economic

Figure 3.12
Indicators of house price fundamentals



Source: QV Ltd, Ministry of Housing, Statistics New Zealand, RBNZ calculations.

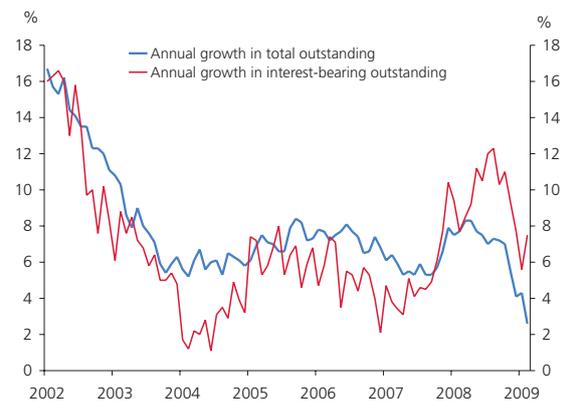
Note: Higher house prices and mortgage payments relative to household disposable income are generally considered to reflect over-valued property prices. Similarly, a wider negative gap between rental yields and mortgage rates may imply over-valuation. See data file (on website) for details of calculation methodology.

environment and rise in unemployment. Annual growth in lending to households has slowed substantially over recent months, but less abruptly than in other countries, suggesting that the current weakness in credit growth reflects subdued demand as well as supply constraints.

...and credit card usage is subdued.

Overall growth in credit card debt has been relatively slow over recent months (figure 3.13), with the non-interest bearing component actually falling in nominal terms. These trends are consistent with current weakness in retail spending, and are unlikely to reverse in the near term. Interest-bearing credit card debt continues to grow, albeit at a declining rate, which may indicate that some households are facing increasing difficulty making repayments. Some partial data on credit card arrears received by the Reserve Bank have not shown any material increase to date.

Figure 3.13
Annual growth in credit card debt



Source: RBNZ.

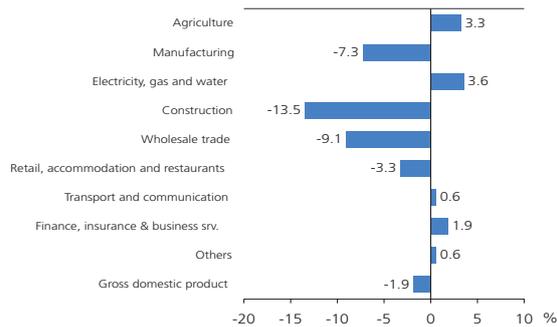
Note: Personal cards only. Seasonally-adjusted.

Weak demand is hitting business revenues and profitability...

Businesses in New Zealand are facing an extremely challenging operating environment as weak international and domestic demand leads to falling revenues and increasing pressure on firms' balance sheets. The resulting decline in

productive activity has been broad-based, with most parts of the business sector contracting sharply through 2008 (figure 3.14) – a pattern that is expected to have continued for the first half of this year.

Figure 3.14
Components of production GDP
(December 2008 quarter, percentage change from one year earlier)



Source: Statistics New Zealand, RBNZ calculations.
 Note: “Others” includes fishing, forestry and mining, government administration and defence, personal and community services, and unallocated and balancing items.

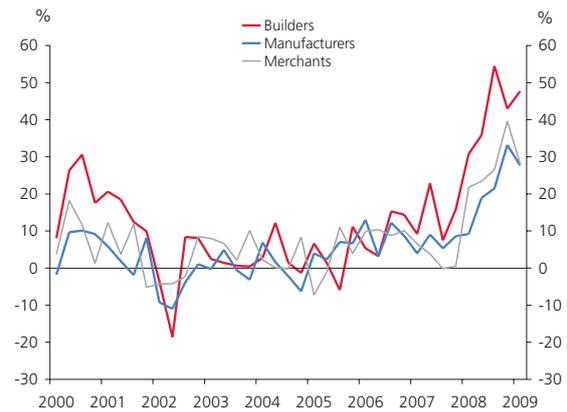
While the decline in the New Zealand dollar should ultimately benefit some parts of the tradable sector, recent surveys of business opinion indicate that manufacturers expect export sales to continue to decline over the near term. More broadly, businesses remain deeply pessimistic about the outlook for profitability. Sharply lower oil prices have eased input costs to some extent, but the lower exchange rate has increased the cost of other imported materials and capital equipment.

...with signs of financial stress becoming more evident...

An extended period of weak profitability will challenge some businesses’ ability to service debt, especially where leverage ratios are high and interest cover relatively weak. As discussed in Box B, business debt in New Zealand has increased strongly over recent years, supported by similarly strong growth in earnings. It is also significant that a substantial portion of business debt in New Zealand is sourced from overseas parent companies. Nevertheless, balance sheet ratios are likely to

deteriorate while economic activity remains subdued, with the retail sector particularly vulnerable. There are clear signs of financial strains emerging in large parts of the business sector, with an increasing number of firms reporting overdue payments from customers (figure 3.15).

Figure 3.15
Businesses reporting overdue debtors



Source: NZIER QSBO.
 Note: Net percentage of survey respondents reporting higher incidence of overdue debts from customers over the past three months.

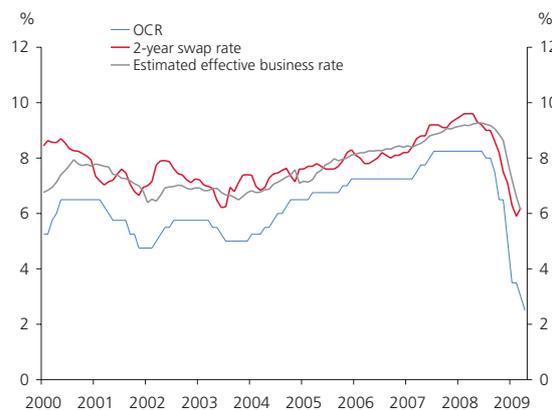
...as access to credit has become more difficult.

As the economic environment has deteriorated, banks and other lenders have naturally become more cautious in extending credit to the business sector. Annual growth in business credit remains relatively robust (8.2 percent in the year to March 2009), but this largely reflects very strong lending growth through the middle part of last year. The total amount of business credit outstanding has actually contracted since peaking in December 2008.

At least part of this slowdown can be attributed to lower demand for credit as businesses curtail capital expenditure and delay expansion plans. However, it is also evident that a significant minority of borrowers, particularly smaller firms with weak or unproven cash-flows, are having difficulty in obtaining credit on affordable terms. Banks and other lenders have tightened loan criteria and increased risk margins, although the effect on the typical interest rate payable on business credit has been more than offset by recent cuts

in the OCR and commensurate declines in longer-term wholesale rates (figure 3.16).⁶ Estimated business interest rates on bank credit have fallen faster than the effective mortgage rate, principally because business borrowing from banks tends to be for shorter terms. However, some businesses use swap contracts (not measured here) to fix interest rates for a longer period, which will delay the impact of falling interest rates.

Figure 3.16
Effective interest rate on business debt



Source: Reuters, RBNZ.

Note: The effective business rate is estimated residually by adjusting system level interest rates using information on mortgage rates and estimates of consumer and interbank rates.

Current weakness in the domestic economy is also affecting commercial property, with vacancy rates expected to rise as tenants downsize or cease trading. Property valuations are also likely to fall in nominal terms, although there does not appear to be the same level of over-supply in the market as preceded the steep decline in commercial property prices during the late 1980s. Reflecting this negative outlook, the share prices of listed property trusts (LPTs) have fallen substantially since 2007 (figure 3.17), largely in line

with the broader New Zealand market. The LPT sector has expanded rapidly over recent years, but gearing levels are more conservative than in some countries, including Australia. Nevertheless, lenders exposed to the commercial property sector (including, as discussed in Chapter 4, New Zealand's major banks) are facing elevated credit risks.

Figure 3.17
Equity prices of Listed Property Trusts
(January 2007 = 1000)



Source: Datastream.

Agricultural debt levels have risen sharply and may not be sustainable...

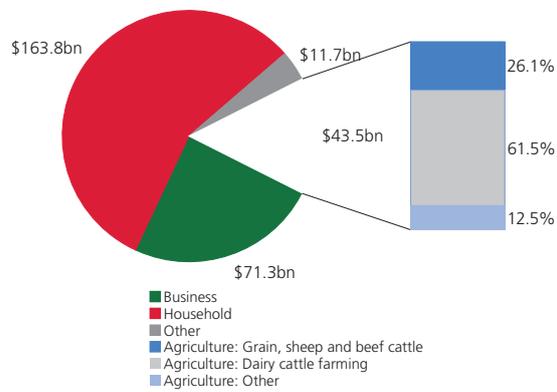
Leverage in New Zealand's agricultural sector remains high following rapid growth in borrowing in recent years as commodity prices increased sharply, pushing up rural land prices. Bank lending to the sector more than doubled in dollar value between 2003 and 2008, and continues to grow more strongly than lending to other parts of the economy (see Box C in Chapter 4), although growth rates have eased in recent months. Loans to agriculture currently account for 15 percent of total bank lending in New Zealand, up from around 10 percent earlier this decade. Rising agricultural debt has been accompanied by a trend increase in farmers' debt-to-earnings and debt-servicing ratios.

As noted in the May 2008 *Report*, the distribution of agricultural debt is highly skewed across the sector, with indebtedness generally greatest among dairy farms (figure 3.18), especially new entrants to the industry and farms that have expanded through leveraged land purchases in recent

⁶ The estimated effective business rate in figure 3.16 rate is substantially lower than the base business lending (BBLR) rate published monthly by the Reserve Bank. The BBLR is an unsecured rate for smaller businesses, whereas in reality a large percentage of business lending is either secured or to larger corporate borrowers able to negotiate lower rates. Moreover, the Reserve Bank is aware of some deficiencies in the construction of the BBLR series, and we expect to publish an improved measure shortly.

years. Fluctuations in rural incomes, which influence land prices and lending growth with varying lags, are a key source of risk to both borrowers and lenders in the sector.

Figure 3.18
Bank lending by sector



Source: RBNZ.

Note: Breakdown of bank lending by sector is as at March 2009, excluding inter-bank and non-resident claims. Percentages reported for the breakdown of lending to agriculture are estimated from the most recent RBNZ Agricultural Lending survey (June 2008). Percentages on the agriculture bar are sector shares of total lending to agriculture.

...especially if commodity prices continue to decline.

These risks have become more pronounced recently as lower commodity prices and weakness in the world economy have reduced export receipts. Rural land prices appear to have eased after a period of significant increase, with a considerable drop in sales volumes potentially reflecting a widening gap between buyers and sellers. This may foreshadow a significant fall in land prices.

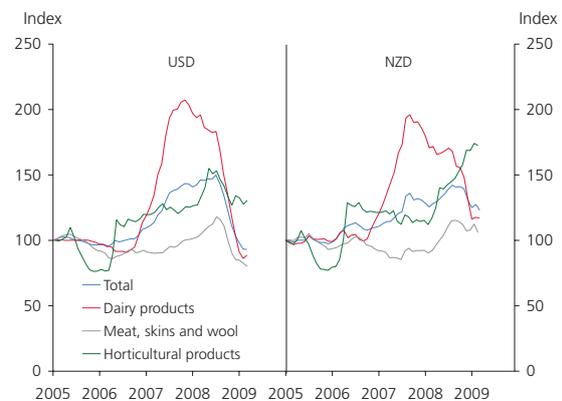
Lower interest rates are easing the strain on farmers' balance sheets, although debt-servicing burdens are unlikely to have fallen to the same extent as the OCR, given pressures on banks' funding costs and adjustments to risk margins undertaken in response to weaker conditions in parts of the agricultural sector. In some cases, farms may use derivative products to fix interest rates on their borrowing, and these will delay the impact of declining interest rates on debt servicing costs. Moreover, input costs increased strongly in the year to December, although lower fuel prices are now providing some relief. The lower New Zealand dollar is also

placing upward pressure on input and capital equipment costs.

Dairy farms appear most at risk...

Although some segments of the agricultural sector (such as horticulture) are faring relatively well, other segments have faced some weakening in international prices, including the meat and wool sector. However, the effect has been buffered by the decline in the value of the New Zealand dollar over the past year (figure 3.19). Returns in the dairy sector have fallen sharply, with world dairy prices down nearly 60 percent from their November 2007 peak, returning to 2006 levels. The depreciation of the New Zealand dollar initially provided some offset to falling world dairy prices, but this has been limited by the rebound in the exchange rate in recent months. Despite some recent brighter indications for world dairy prices, the prospect of lower returns persisting beyond the current season remains.

Figure 3.19
Agricultural commodity prices



Sources: ANZ, RBNZ calculations.

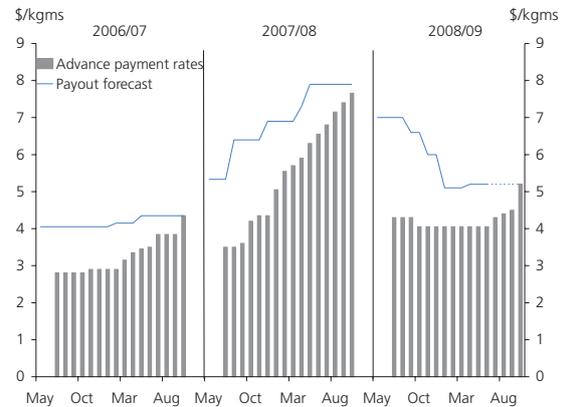
Note: Indices rebased to January 2005 = 100.

...as lower payouts from Fonterra lead to a sharp reduction in budgeted revenues.

Reflecting these developments, Fonterra is currently forecasting a payout for the 2008/09 season of \$5.20 per kilogram of milk solids (figure 3.20). While in nominal terms this payout remains high by historic standards, in real terms it has fallen to around its long term average, and constitutes a significant reduction in budgeted farm revenue. Lower payouts are affecting farmers' cash flows and some farms

have been forced to rely more heavily on credit lines and overdraft facilities earlier in the season than usual. Some farmers have ample headroom to increase debt if required, while others should be able to cut operating costs to reduce borrowing needs. As a general rule, 'family farms' are better placed to cut costs than larger corporate farms with more rigid wage structures. In aggregate, however, the agricultural sector's vulnerability to a further tightening in the availability of credit or renewed weakness in returns appears to have increased.

Figure 3.20
Fonterra forecast payouts and advance payment structure

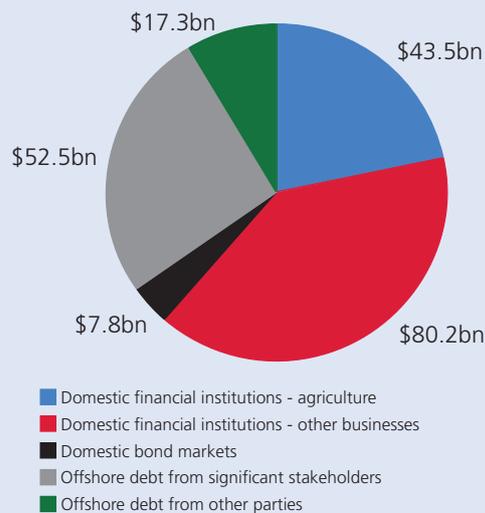


Sources: Fonterra.
Note: Payout forecasts are the current forecast of the final end of season payout to farmers in October. The advance payment schedule is the monthly payout paid to farmers on production to date. Differences between the final forecast payout and the final actual payment reflect payout retention by Fonterra.

Box B
Debt levels in New Zealand's business sector

Businesses in New Zealand raise most of their domestic debt directly from local financial institutions (figure B1),

Figure B1
Sources of business debt in New Zealand (as at December 2008)

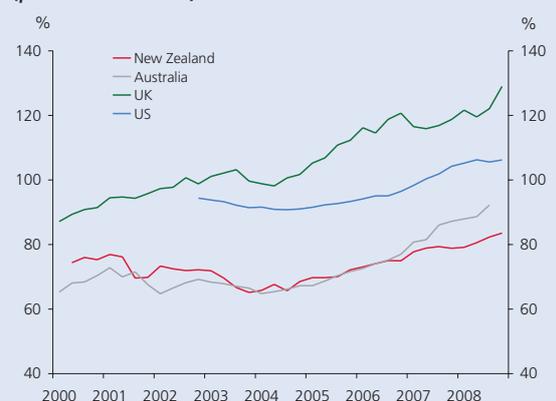


Source: Statistics New Zealand, RBNZ calculations.
Note: Chart construction combines RBNZ data on sectoral lending by banks and non-banks, Statistics New Zealand balance of payments data, and estimates of resident holdings of New Zealand corporate bonds. Many small businesses borrow against the owner's home; these loans are classified as residential mortgages and excluded from this analysis.

with market borrowing playing a smaller role than in many larger countries. A significant portion of business debt is also raised from offshore, some of it from overseas parties with a significant stake-holding in the company.

Much of the increase in business debt since 2003 reflects higher borrowing from domestic banks and, until relatively recently, non-banks. Offshore debt (particularly

Figure B2
Non-farm business debt in selected countries (percent of GDP)



Sources: National sources, RBNZ calculations.
Note: Non-financial private sector debt, excluding agriculture. New Zealand measure excludes corporate bonds issued in the domestic market. See data file for additional detail.

from related parties) has also grown in recent years. Strong corporate earnings, rising asset prices, and high levels of investment over most of this period fuelled an appetite for debt. The level of debt held by non-farm businesses in New Zealand has grown quickly in recent years, with business debt climbing relative to GDP since around 2003. This is a trend that has also been seen in a number of other countries, including the US, Australia and the UK (figure B2), based on a comparison of broadly similar measures of debt.

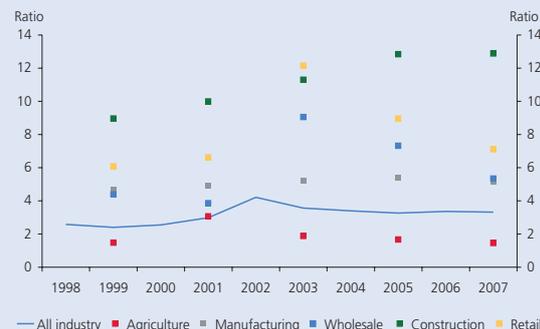
Although debt levels have increased across most industries, a notable area of growth has been the property sector (which encompasses residential and commercial property development and commercial property investors, including property trusts). Up until about 2006, non-bank deposit takers lent aggressively to this sector. However, banks have also been significant lenders – around 40 percent of banks’ non-farm business lending is in the property sector.

A range of risks are associated with rising business debt burdens, including, in the current environment, the risk that the debt cannot be readily refinanced on agreeable terms and conditions. A more fundamental risk concerns the ability of firms to continue to service debt when economic conditions deteriorate.

Notwithstanding the rise in debt levels, an analysis of data from Statistics New Zealand’s Annual Enterprise Survey (AES) suggests that interest cover in the business sector edged higher between 1998 and 2007, signifying an improvement in debt servicing capacity (figure B3). During this period, the business sector as a whole experienced rapid earnings growth – aggregate earnings increased by an average of about 10 percent per annum. The same dataset also suggests that leverage (debt-to-equity) ratios edged lower from around 2002 onward (figure B4), primarily due to rising asset values. However, the end of this period predates the current economic downturn which is now eroding earnings in many sectors and placing pressure on businesses’ balance sheets. Moreover, aggregate ratios can mask significant differences at firm level. With the rise in business debt spread unevenly through the economy,

Figure B3

Interest cover in selected industries



Source: Statistics New Zealand, RBNZ calculations.

Note: All industries excludes government and finance. Interest cover is defined as the ratio of profits before tax and interest to interest payments. Interest payments include donations.

Figure B4

Debt-to-equity ratio in selected industries



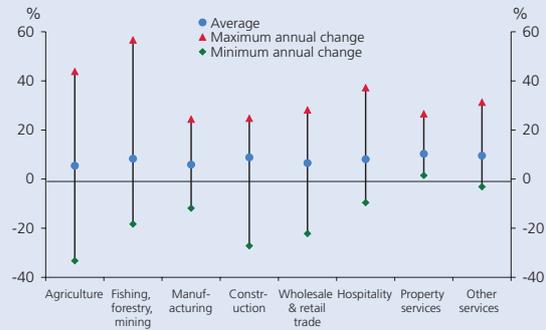
Source: Statistics New Zealand, RBNZ calculations.

Note: All industries excludes government and finance. Debt is measured by the sum of current and total liabilities. Figures for construction and retail in 2007 are estimated.

financial ratios are likely to have deteriorated for at least some firms.

Business earnings can fluctuate markedly at the industry level (figure B5), and results for individual firms will be more variable still. Current weak economic conditions suggest many businesses will face markedly lower earnings over the year ahead. Interest rate reductions will help counter the effects of lower earnings and businesses with solid balance sheets can be expected to weather the downturn. However, ability to service debt is likely to become an issue for some businesses.

Figure B5
Movements in industry earnings by sector
1985-2005
(annual percent change)



Source: Statistics New Zealand, RBNZ calculations.
Note: Earnings measured by gross operating surplus. Data for the period since 2005 are not yet available.

Globally, default rates on business debt are expected to rise sharply over coming quarters. This is also likely to be true in New Zealand, but to a lesser degree, as New Zealand did not experience as much financial innovation in business lending over the last decade as most other advanced economies. For example, there were relatively few large private equity deals in New Zealand.

4 New Zealand's financial institutions

New Zealand's banks are facing an increasingly challenging operating environment. Asset quality is deteriorating as weakness in the domestic economy stretches borrowers' ability to service debt, highlighting the need for banks to increase provisioning and ensure that they maintain sufficient capital to absorb unexpected losses. Loan impairments are likely to rise further, albeit not to the same degree as witnessed in several other economies over the past 18 months. Neither is overall asset quality expected to weaken to the same extent as in the early 1990s. Funding risks remain elevated, although the major banks have been able to access offshore funding markets somewhat more easily over recent months, partly aided by the Crown wholesale guarantee scheme. Lengthening the maturity profile of wholesale funding portfolios should remain a priority for New Zealand's banks during 2009.

Although credit to households and businesses has continued to grow over the past year, the rate of increase has slowed markedly over recent months. While this is partly because activity has softened, New Zealand's banks (and other lenders) have tightened lending criteria quite significantly. We are continuing to watch developments on this front closely since the continued availability of credit is necessary to ensure an economic recovery. Box C summarises recent trends in loan growth and credit conditions in New Zealand.

The non-bank sector continues to adjust in response to the succession of finance company failures over the past two years. Asset quality remains weak in certain parts of the sector, although the introduction of the Crown deposit guarantee scheme in September 2008 has mostly halted the outflow of retail deposits that was placing extreme liquidity pressures on the sector. The scheme provides non-banks with an opportunity to strengthen balance sheets and review business models – a process that is critical to rebuilding confidence in the sector. Chapter 6 describes the role of the new prudential regime for non-bank deposit takers in strengthening the future resilience of the non-bank sector.

4.1 Banking sector

Bank asset quality is weakening...

Measures of bank asset quality have deteriorated markedly over recent quarters as the effects of the economic slowdown have become clearer. In absolute terms, New Zealand's banks reported a three-fold increase in impaired assets between March 2008 and December 2008, albeit from a very low starting point. Across the banking system as a whole, impaired and past-due assets were around one percent of total lending in December 2008.¹ The banks have indicated to the Reserve Bank that there has been a further sharp rise

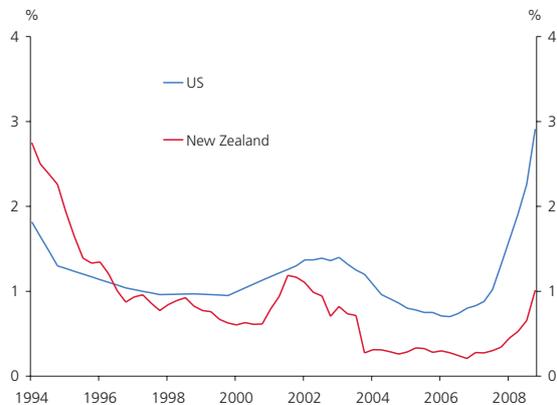
in impairments during the opening months of 2009. Despite this increase, overall bank asset quality remains substantially stronger than during the early 1990s. Trends in bank asset quality appear broadly similar to those in Australia² and compare favourably with the current situation in some other countries, such as the US (figure 4.1).

Asset quality is likely to deteriorate further during 2009. As discussed in Chapter 3, rising unemployment and high debt levels are stretching household balance sheets, while businesses and some farms are facing financial pressures

¹ These statistics refer to assets that are either impaired or at least 90 days past-due.

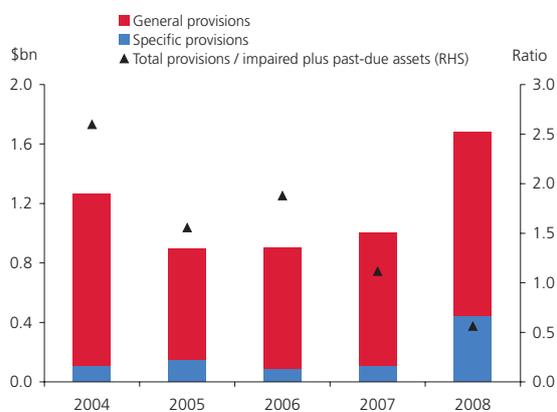
² See graph 30 in the Reserve Bank of Australia's March 2009 *Financial Stability Review*. The share of non-performing loans in Australia at the end of 2008 was somewhat higher than New Zealand's.

Figure 4.1
Measures of non-performing loans in New Zealand and the US
(percent of loans)



Sources: US Federal Deposit Insurance Commission, RBNZ.
Note: US non-performing loans are those greater than 90 days past due and those in non accrual status. Non-performing loans in New Zealand are impaired loans plus loans greater than 90 days past due. For a longer time series of New Zealand impaired assets, see figure A21 in the appendix.

Figure 4.2
New Zealand banks' provisioning



Sources: Registered banks' General Disclosure Statements (GDS).
Note: Data as at December.

driven by weak economic activity and lower commodity prices. Borrower default rates are expected to rise, emphasising the importance of adequate provisioning against future credit losses. New Zealand's banks increased total provisions by more than \$600 million in the year to December 2008 (figure 4.2). However, with asset impairments also rising strongly, the ratio of total provisions to impaired and past-due assets has fallen to a historically low level, suggesting that a more proactive approach to provisioning will be required if overall credit quality continues to deteriorate as anticipated.

...particularly for business lending...

Loan impairments have expanded in residential mortgage, other retail, and corporate portfolios of the major banks (figure 4.3),³ but the most rapid increase in impairments has been in the corporate book. This category includes most business and agricultural lending, but a substantial amount of the recent rise in corporate impairments is understood to have come from commercial property exposures.

Figure 4.3
Major New Zealand banks' asset quality, by type of lending



Sources: Major banks' GDS.

Note: Loans to each sector past due or impaired as at end December, as a percentage of loans outstanding at end September. Where necessary, end September loans outstanding are estimated by interpolation.

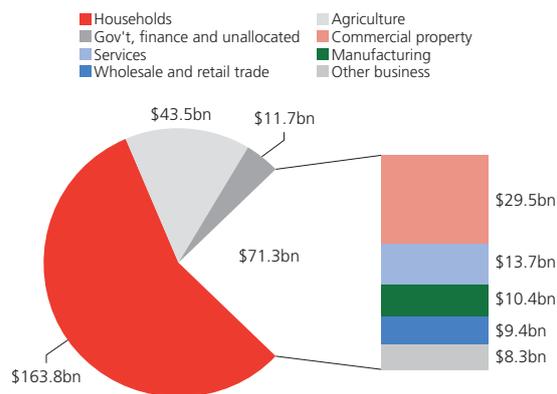
...including commercial property.

Commercial property exposures account for slightly more than 10 percent of the New Zealand banks' total domestic lending (figure 4.4), and have continued to grow rapidly despite the challenging economic environment. In the year to February 2009, for example, total bank lending to the commercial property sector increased by nearly 20 percent, which is substantially faster than other business lending (Box C). Most of this lending is secured against physical assets, but with commercial property prices expected to fall in the period ahead (see Chapter 3), there is a risk that banks could incur rising credit losses in this sector, particularly if 'forced selling' by distressed property investors weighs heavily on property valuations.

³ The four largest banks in New Zealand are required, as part of their Basel II accreditations, to disclose detailed information on the credit quality of their residential mortgage, other retail, and corporate loan books each quarter. Other registered banks using the standardised version of Basel II are not required to disclose this information to the same level of detail.

Within the commercial property sector, one particular area of concern is property development. As discussed in previous *Reports*, ongoing strains in the non-bank sector have substantially reduced developers' access to mezzanine financing. This increases the risk that some projects will remain unfinished, exposing banks to increased credit risk. Moreover, with demand for new commercial and residential property currently very subdued, arranging the sale of a part-completed development at a 'market' price is extremely difficult. Depending on the circumstances, there may be instances where it is preferable for a bank to provide the additional financing required to complete a project rather than risk its cancellation – a dynamic that could explain some of the recent strong growth in lending to the commercial property sector.

Figure 4.4
Distribution of the New Zealand banks' domestic lending



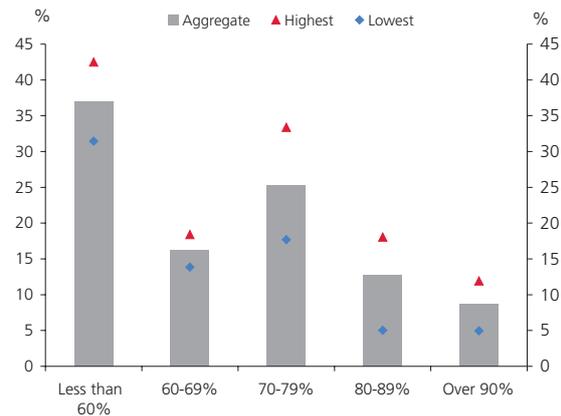
Source: RBNZ.
Note: Excludes inter-bank lending and non-resident claims. Data as at 31 March 2009.

Arrears have increased on residential mortgages...

Another significant credit exposure for New Zealand's banks is the residential mortgage market, which accounts for around half of total bank lending in New Zealand. The major banks experienced a significant rise in past-due mortgages during the latter part of 2008 (figure 4.3), with rental property investors understood to account for much of the increase. Most of these exposures appear to be soundly collateralised, however, with the major banks reporting that less than a tenth of all residential mortgages have a current loan-to-value (LVR) ratio in excess of 90 percent, with some variation

across institutions (figure 4.5). These LVR measures are based on the value of the property at the time the mortgage was arranged, rather than the current market price.

Figure 4.5
Major New Zealand banks' residential mortgage lending by loan-to-value ratio



Sources: Major banks' GDS.
Note: Highest (lowest) indicators denote the bank with the highest (lowest) fraction of its mortgages in each LVR bucket.

New Zealand's banks have generally tightened their mortgage lending criteria over recent months, which can be expected to lead to a gradual decline in the proportion of high LVR mortgages. Other things equal, this will reduce credit risk for the banks. In the short term, however, the combination of rising unemployment and declining residential property prices raises the prospect of continued deterioration in credit quality, although loss rates on the banks' mortgage portfolios are not expected to rise to anything like the extent seen in the US and some other countries. It is important that banks continue to lend to creditworthy households to ensure that the adjustment in house prices remains orderly.

...and are likely to rise for rural lending as well.

Credit exposures are also significant in the agricultural sector, particularly given the recent rapid growth in rural lending and the sharp decline in farm incomes during the 2008/9 season compared with a year earlier (see Chapter 3). Some more highly leveraged farms, notably in the dairy sector, are having difficulty in servicing debt, despite recent declines in interest rates, and there is evidence of increased

use of overdraft facilities earlier in the year than is typically the case. Rural land prices are also likely to come under increasing pressure through the remainder of 2009, with the market for farm sales currently very thin.

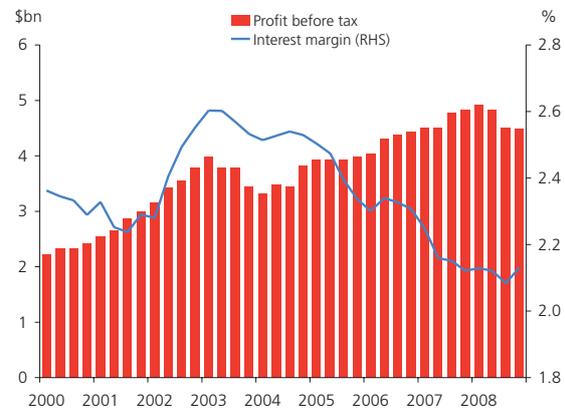
Default rates on agricultural lending remain relatively low at present, and the major banks have indicated that they intend to assist rural borrowers through a period of weaker returns. Despite some more positive trends in dairy prices recently, it appears unlikely that commodity prices will return to the elevated levels of 2007/8 in the foreseeable future, and banks should be prepared for a situation in which farm incomes remain relatively low for an extended period. Prompt action to carefully manage exposures to financially stressed farms is likely to be necessary.

Interest margins have started to rise...

Deteriorating asset quality is also weighing on banking sector profitability. New Zealand's banks reported aggregate pre-tax profits of \$4.5 billion in the year to December 2008, down seven percent on a year earlier, driven largely by higher provisioning expenses (figure 4.6). Reduced loan growth is also likely to depress profits, although the impact will be partly offset by increased interest margins as banks reflect higher credit risks in the lending rates charged to borrowers. After falling steadily for several years as the domestic loan market became increasingly competitive, the New Zealand banks' interest margins increased slightly in the fourth quarter 2008. However, it is important from a broader macroeconomic perspective that margins are not unduly expanded.

More timely measures of the spread between banks' funding costs and lending rates have also increased over recent months, in some cases quite sharply. These measures should, however, be treated with caution, as they do not necessarily provide an accurate picture of interest margins. For example, the spread between wholesale swap rates and advertised mortgage rates fails to capture the substantial premium over swap that New Zealand's banks are currently required to pay on term debt. Similarly, the spread between the Reserve Bank's monthly measures of average interest rates on banks' funding and claims are an imperfect indicator of interest margins since funding costs are measured on New Zealand dollar liabilities only, and also do not take account

Figure 4.6
New Zealand banks' profits and net interest margins
(12-month running totals)



Source: Registered banks' GDS.

Note: Interest margin is defined as the ratio of net interest income to average income-earning assets.

of derivative transactions.⁴ It is likely that the sharp increase in the spread between funding and lending rates shown in these statistics since the middle of 2008 exaggerates the actual increase in banks' aggregate interest margins. However, margins on some lending (such as floating rate mortgages) have been unusually elevated at times, and the Reserve Bank is continuing to monitor this issue.

...and capital ratios have remained above eight percent.

After profits, capital is the next buffer against unexpected losses. New Zealand's banks (and the Australian parent banks) have maintained their capital ratios without the government assistance banks in other countries have recently required.

Across the banking system as a whole, tier one capital amounted to around 8.5 percent of risk-weighted assets (RWA) at the end of 2008, while total capital stood at 11.3 percent of RWA. With the quantity and quality of bank capital now under increased scrutiny, rating agencies and other analysts are increasingly focusing on banks' tangible common equity as a key indicator of capacity to absorb unexpected losses. Leverage ratios, typically defined as the ratio of total assets to shareholders' equity, have attracted renewed attention, especially given the very high levels of

⁴ The Reserve Bank is currently making arrangements to collect and disseminate data on banks' foreign-currency funding costs.

leverage reported by some of the international banks most affected by the current crisis. By comparison, New Zealand's banks are substantially less leveraged.

The latest tier one capital ratios reported by the four largest New Zealand banks are at least two percentage points above the six percent floor required to qualify for the Crown's wholesale funding guarantee (figure 4.7). Moreover, these banks' Australian parents are well-capitalised, having successfully issued substantial amounts of new equity to private investors over the past six months. Although not required at present, the financial strength of the Australian parent banks provides an assurance that additional capital will be available to the largest New Zealand banks if needed, and also underpins their credit ratings. Of the world's top 100 banking groups, just 11 are now rated 'AA' or better by Standard & Poor's, a subset that includes the four major Australasian banking groups.

Figure 4.7
Tier one capital ratios



Source: Registered banks' GDS and Australian banks' pillar 3 disclosures.

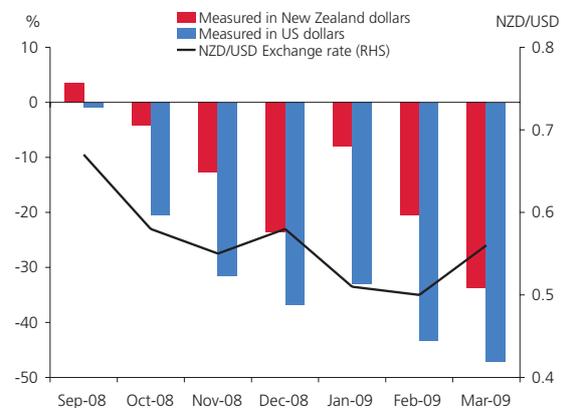
Note: Locally-owned banks' tier one capital ratio is an asset-weighted average of ratios reported by Kiwibank, TSB Bank and Southland Building Society.

Funding pressures were elevated in late 2008...

Pressures on the New Zealand banks' funding have gradually eased since the November Report, but funding markets remain a source of vulnerability. The major banks in particular rely heavily on offshore funding, a substantial fraction of which is obtained by issuing short-term debt in the US commercial paper (CP) market. As discussed in Chapter 3, this market has contracted significantly since the middle of 2007, with issuance slowing to a virtual standstill for several weeks following the collapse of Lehman Brothers in September last year. While the New Zealand banks were generally able to issue CP during this period, maturities were typically very short and the cost was relatively high by historical standards.

Precise data on offshore CP issuance by New Zealand's banks are not readily available. However, estimates based on monthly data collected by the Reserve Bank reveal a substantial decline since September 2008 (figure 4.8). Measured in New Zealand dollar terms, CP funding contracted by about a third, or more than \$8 billion between September and March, with the scale of the decline moderated to some extent by the fall in the exchange rate over the same period. Assuming that all offshore CP is denominated in US dollars, the actual decline in CP outstanding is estimated at closer to 50 percent.

Figure 4.8
Estimated monthly change in New Zealand banks' offshore CP funding



Source: RBNZ calculations.

Note: Based on data on registered banks' funding from foreign-currency negotiable instruments, of which commercial paper (CP) is the major component.

... but banks have access to Reserve Bank's Term Auction Facility and parental funding.

Restricted access to offshore credit markets has required New Zealand banks to find alternative sources of funding. Demand for credit in the Term Auction Facility (TAF) established by the Reserve Bank in November 2008 was particularly strong around the turn of the year, with the banking system borrowing nearly \$7 billion at terms of up to 12 months, secured against residential mortgage-backed securities (RMBS). Box D provides a more comprehensive update on the Reserve Bank's extended liquidity facilities and how they have been used since our November *Report*.

The major banks have also been able to obtain additional funding from their Australian parents, taking advantage of the parents' ability to borrow offshore at lower cost. As discussed in Chapter 2, the Australian banks have issued a large amount of term debt under guarantee from the Australian government over the past six months. One major Australasian banking group has established a branch of the Australian parent in New Zealand to assist funding the locally incorporated subsidiary. Both the branch and the subsidiary are subject to prudential supervision by the Reserve Bank and the branch is not permitted to undertake domestic banking operations.

Risks have eased more recently...

As discussed in Chapter 2, conditions in the offshore CP market have steadily improved over recent months, supported in part by policy measures introduced by the US Federal Reserve. The major New Zealand banks have been able to issue CP more easily and on improved terms since the start of 2009, with the typical maturity lengthened to around six months. Demand for TAF credit has declined in parallel, although almost all of the original loans remain outstanding.

...although the Crown wholesale guarantee scheme has been sparsely used thus far.

To date, issuance of offshore term debt under the Crown wholesale guarantee scheme has been limited. ANZ-National Bank issued US\$1 billion in government-guaranteed term debt in the US market in late March, albeit at relatively high cost. The Bank of New Zealand has also raised a small

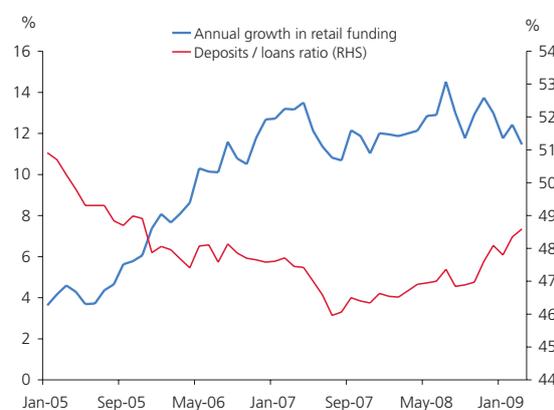
amount of government-guaranteed funding in the domestic market.

With international investor confidence remaining fragile, however, there remains a risk that market conditions could deteriorate once again. To reduce the liquidity pressures that could arise under this scenario, it is important that New Zealand's banks continue to lengthen their offshore wholesale funding portfolios as suitable debt issuance opportunities arise, including by making greater use of the wholesale guarantee scheme. Despite some recent improvement, the proportion of the banks' international liabilities maturing in less than 90 days remains above 40 percent. Reducing dependence on short-term wholesale funding is a key objective of the Reserve Bank's proposed new prudential liquidity policy (see Chapter 6).

Retail deposit growth remains robust...

Robust growth in retail deposits has provided some offset to recent pressures on the New Zealand banks' wholesale funding. Although the Crown's deposit guarantee scheme has reduced the outflow of deposits from the non-bank sector (see below), the banks continue to benefit from households increasing their precautionary savings and generally preferring deposit accounts over alternative types of investment. Retail funding increased by more than 12 percent in the year to February 2009 (figure 4.9). With loan growth slowing over recent months, the ratio of retail

Figure 4.9
Retail deposit growth and the deposits/loans ratio
ratio



Source: RBNZ.

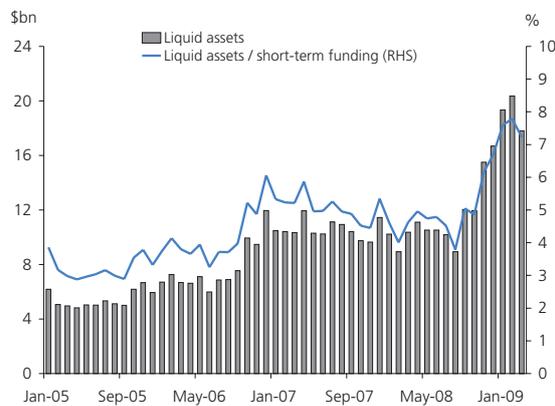
Note: Retail funding in New Zealand dollars only.

deposits to total domestic lending (excluding loans between financial institutions) has increased slightly, but remains below 50 percent, illustrating the New Zealand banks' continued reliance on offshore wholesale funding.

...and liquid asset holdings have increased.

New Zealand's banks have responded to elevated funding risks by holding an increased volume of liquid assets. Across the banking system as a whole, traditional liquid assets increased from about \$10 billion in the middle of 2008 to more than \$20 billion by February 2009, and now amount to more than seven percent of funding maturing in less than 90 days (figure 4.10).⁵ Banks have encountered few difficulties in obtaining sufficient liquidity to meet near-term obligations, and payment flows in New Zealand's main payment systems have been relatively steady. In addition, all the major banks have now established suitable RMBS structures that can be used to obtain six-month to one-year credit from the Reserve Bank if no alternative sources of funding are available (Box D).

Figure 4.10
New Zealand banks' liquid assets



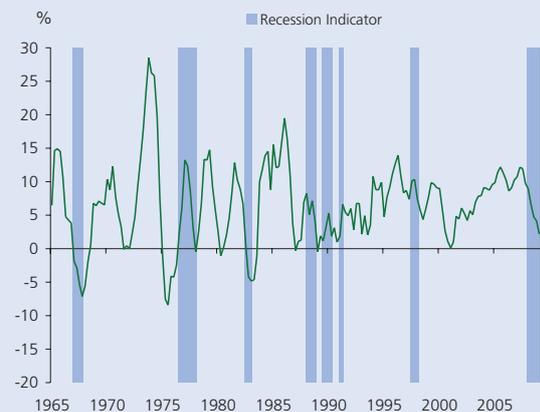
Source: RBNZ.

⁵ For the purposes of this calculation, liquid assets are defined as currency (notes and coin), government securities and claims on the Reserve Bank.

Box C
Lending growth and credit conditions in New Zealand

Since financial deregulation in New Zealand in the mid-1980s, credit growth has generally outpaced growth in nominal GDP, with credit extended to the private sector expanding by an average annual rate of about 10 percent since the late 1980s. Much of this credit has been used to finance the purchase of assets, such as housing, farm land, or commercial property, the prices of which have increased more quickly than general inflation.

Figure C1
Private sector credit growth
(real annual percent change)



Sources: RBNZ, Hall and McDermott (2007).
Note: Resident credit only (estimated prior to 1989).
Recessions are identified where the level of GDP declines over two quarters.

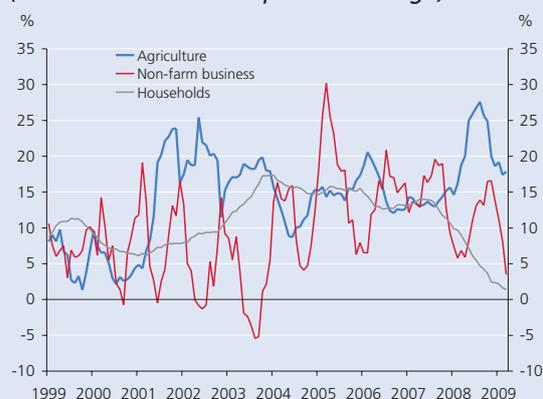
However, it is normal in New Zealand (figure C1) and other countries for credit growth to slow quite dramatically during periods of economic weakness, albeit often with a significant lag.⁶ The decline in credit growth will typically reflect weakening demand for credit as households scale back consumption and property purchases and firms cut back expansion plans. It can also reflect some tightening in loan criteria as lenders become more concerned about credit risk. The tendency for credit to lag the economic cycle may be due to firms initially drawing down existing credit lines to meet a need for more working capital as activity slows and cash flows tighten.

⁶ See, for example, the discussion in Chapter 3 of the IMF's April 2009 *WEO*. Credit growth typically slows during and after recessions, with the effect much more pronounced during identified episodes of financial crisis.

Figure C2

Sectoral credit growth

(six-month annualised percent change)



Source: RBNZ.

Note: Household and agriculture credit data are seasonally adjusted.

Growth in credit to New Zealand households has slowed dramatically over the past year, with household credit expanding by just three percent in the year to March. Credit to businesses continued to grow robustly through most of 2008, but there has been little net growth since December (figure C2). Credit to agriculture grew very rapidly in 2008 on the back of rising rural property prices. While the rural property market has since cooled, with the number of farm sales well down on this time 12 months ago, agricultural credit growth has been sustained with a marked increase in seasonal financing as some farmers face lower returns.

To understand the reasons behind the decline in credit growth, the Reserve Bank interviewed a range of lending managers at financial institutions in February and March, and has also focused on credit availability during its regular meetings with businesses. These discussions suggest the demand for credit has fallen sharply, consistent with a weakening in economic activity and softer housing and other asset markets. Lenders confirmed a marked tightening in credit standards and terms for business and agricultural lending during 2008. Lenders are reviewing requests for further funding from existing clients more comprehensively than in recent years, and are charging a higher risk margin and imposing more stringent limits as the economic outlook deteriorates. In terms of residential lending, lenders also noted that they are now much less

willing to grant mortgages for more than 80 percent of a property's value, without additional security or guarantees.

Our overall sense is that the reduction in credit growth for households is primarily a consequence of reduced demand for loans rather than the tightening in credit standards. Weaker economic activity may also partly account for slower growth in business lending, but the evidence is increasingly pointing to some constraints on the availability of credit — some businesses are reporting difficulties in obtaining credit on what they would regard as reasonable terms and conditions. In some cases, businesses may be turned down by the lender because the proposed expansion looks genuinely more risky in a weak economic climate. However, business feedback also suggests difficulties in obtaining credit have been experienced by some creditworthy borrowers, including the total withdrawal of credit lines in some instances.

In some areas, such as property development, the availability of credit has tightened considerably. The demise of many non-bank lenders and the decline in the willingness and ability of remaining participants to increase their exposure to the sector has led to a significant tightening in the availability of credit in this industry. The impairments experienced (particularly by non-bank lenders) in this sector recently suggest that this tightening is largely appropriate.

In some countries, governments have directly intervened in certain credit markets where standards have tightened dramatically, given the exit of key institutions from the industry or constraints on funding. For example, reduced willingness to buy securities backed by new car loans and student loans led the US government to begin funding investors who purchased such securities. The Australian government offered funding for car dealers as a result of several prominent foreign lenders to that market exiting the industry. Because New Zealand's credit markets are generally focused on the banking system (which remains profitable), and very few loans are securitised, these effects have been less evident in New Zealand.

Box D

Update on Reserve Bank liquidity facilities

As discussed in earlier *Reports*, the Reserve Bank implemented a range of changes to its liquidity operations during 2008, which included broadening the range of eligible securities, notably to encompass AAA-rated RMBS.⁷ The objective of these changes was (and remains) to ensure that New Zealand's financial institutions have sufficient access to liquidity during a period of significant stress in international funding markets.

In light of the expansion in the universe of eligible securities, and also the possibility that the maturity horizon of liquidity operations may need to be extended, the Reserve Bank has taken steps to ensure specific operations are suitably targeted, and increase operational flexibility. Liquidity operations are now arranged under three broad categories:

- Open market operations (OMO) – Normal day-to-day shorter-term operations intended to keep the overall settlement cash level in a region that ensures that the overnight interest rate is commensurate with the OCR. These operations are secured, and the list of eligible securities is relatively broad.⁸
- Term Auction Facility (TAF) – Used for longer-term injections of liquidity. TAF loans are secured against high quality securities, including RMBS, with operations held each Wednesday. Although no maximum term has been specified, the Bank has not offered the facility at a maturity greater than one year.
- Corporate open market operations (COMO) – Shorter-term reverse repurchase operations secured against eligible corporate paper (including asset-backed securities) and with the minimum price set using a wider margin than for the TAF. These operations are held each Tuesday, but to date have not been accessed.

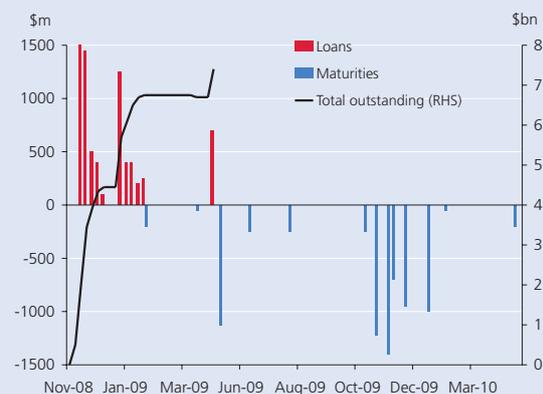
⁷ See Box E on page 33 of the May 2008 *Report*, and also various releases on the Domestic Markets section of the Reserve Bank website.

⁸ Although not considered part of the OMO, foreign exchange swaps transactions are open market operations which provide liquidity to the market for terms of up to 18 months. The typical maturity of these operations is around three months.

The use of the OMO has waxed and waned with the ability of New Zealand's banks to access offshore short-term funding markets. As conditions in these markets have steadily improved since the start of 2009 (see Chapter 2), banks have generally reverted to using foreign exchange swaps and the volume of OMO transactions has fallen.

Appetite for liquidity in the TAF was strong during November and December. With offshore credit markets severely disrupted during this period, the major New Zealand banks in particular were keen to secure longer-term funding. Total TAF lending reached \$6.7 billion in early February, but there was subsequently no demand until late in April (figure D1). As earlier TAF operations begin to mature, some increase in demand is anticipated over the next few months. Assuming global market conditions continue to improve, however, the stock of outstanding TAF credit should diminish slowly, although New Zealand's banks currently have more than \$18 billion in additional RMBS that could be used to obtain term liquidity via the TAF if necessary.

Figure D1
Demand in weekly TAF auctions and total credit outstanding



Source: RBNZ.

4.2 Non-bank sector

The non-bank sector continues to adjust...

Ongoing disruption in global financial markets and weakness in the domestic economy are adding to the challenges facing New Zealand's non-bank sector. Asset quality is deteriorating and term funding is difficult to obtain. The ability of individual non-banks to adjust to these challenges varies across the sector. Although there is significant variation within the subsector, 'savings institutions' (which include building societies, credit unions and the PSIS) are generally well-capitalised, but a number of non-bank deposit takers (NBDTs) will need to strengthen their balance sheets to comply with standards mandated by the new regulatory regime for the NBDT sector (discussed in Chapter 6).

A significant number of non-banks are taking part in the Crown's deposit guarantee scheme (DGS) introduced in October 2008. The DGS was established to give depositors in New Zealand confidence that their money would be secure if a financial institution approved under the scheme were to fail. Eligible depositors are guaranteed to receive full repayment on claims up to \$1 million per institution. The DGS is scheduled to expire in October 2010, and possible successor arrangements are being considered.

... assisted by the Crown deposit guarantee scheme.

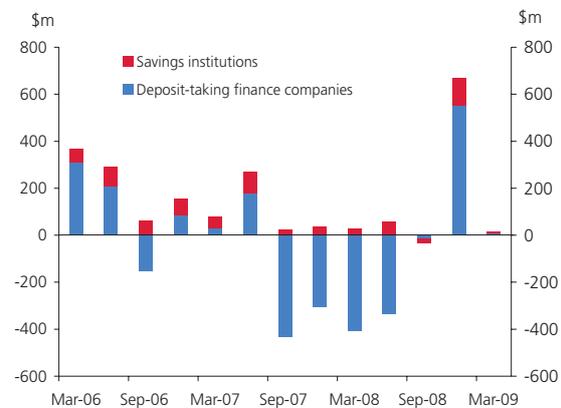
In the finance company sub-sector, the DGS has arrested the outflow of retail deposits that was previously straining the liquidity positions of many firms. After several quarters of negative growth, household deposits in finance companies increased by more than \$400 million in the three months to December 2008 (figure 4.11), although the inflow has slowed more recently, in part because some firms have been able to accumulate large liquidity holdings. The DGS provides a window of opportunity for finance companies to determine the steps necessary to become compliant with the new NBDT regulations. Some firms may be merged or sold to new owners that are able to provide additional capital, while others may ultimately be wound down.

Adjustment is being complicated by continuing weakness in property markets and the domestic economy more generally. Some finance companies are heavily exposed to

the property development sector (figure 4.12) and are likely to incur additional credit losses as projects are not completed and collateral values decline. By contrast, asset quality and capitalisation is generally stronger in the saving institution segment of the NBDT sector, which has less exposure to volatile sectors such as property development.

As the NBDT sector consolidates and restructures, there are likely to be increasing opportunities for investors to purchase assets. Some property developments and loan

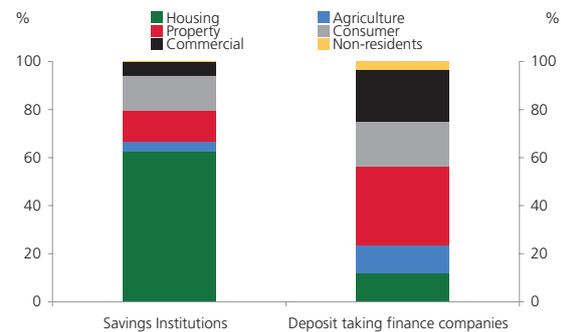
Figure 4.11
Net household deposit growth in NBDTs



Source: RBNZ.

Note: Institutions over \$100 million in assets.

Figure 4.12
Assets of NBDTs



Source: RBNZ.

Note: Comparison as at 31 December 2008.

books are likely to be available for sale, either by the original owner or a mortgagee. Structures such as property syndicates are currently being put in place to mobilise private capital to purchase some of these assets. However, it is important that

investors scrutinise these structures carefully given the risks inherent in some of these arrangements.

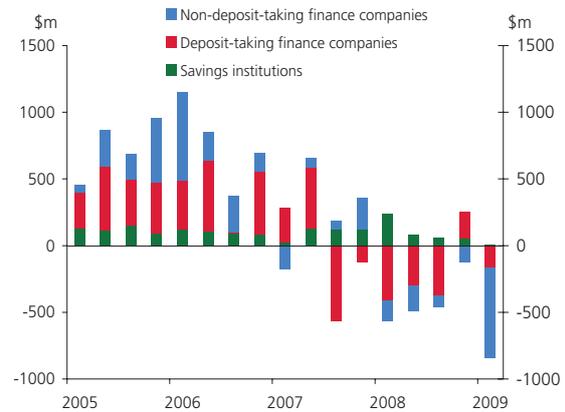
Some international non-bank institutions have withdrawn from the New Zealand market.

A further important development concerns the reduced activity of some (non-deposit taking) international non-bank lending institutions such as GE Money in the New Zealand market. Although these institutions employ a range of business models, they have generally relied on wholesale funding obtained from offshore. As this funding has become more expensive and less readily available, lending activities have been scaled back substantially (figure 4.13). Reduced availability of credit is straining certain segments of the domestic loan market, with the vehicle finance and property developments sectors relatively more affected. However, the tightening of credit terms in these sectors follows a period of excessive optimism and credit growth, and it is not clear whether conditions have become unreasonably tight for this stage in the economic cycle.

In recent years, lending standards in parts of the NBDT sector deteriorated markedly, and depositors were often unaware of the risks to which they were ultimately exposed. While the series of finance company failures since 2007 is expected to encourage depositors and their advisors to more closely scrutinise the financial condition of NBDTs in the future, the DGS temporarily weakens this incentive. Given the temporary nature of the scheme, however, it will be important that investors use credit ratings, capital ratios and professional advice to scrutinise NBDTs more thoroughly in the future.

Figure 4.13

Change in non-bank sector assets



Source: RBNZ.

5 Payment systems

New Zealand's payment systems have continued to function satisfactorily in the generally challenging environment described in earlier chapters. Operational difficulties involving the Reserve Bank's Exchange Settlement Account System (ESAS) have not disrupted payment flows, and there are encouraging signs that delays in submitting payment instructions to the system have reduced. Some progress has been made towards reducing settlement risks in New Zealand's retail payment system, although concerns remain regarding the impact of high-value transactions flowing through the system. The Reserve Bank continues to enhance its engagement with the payment industry, including through regular meetings with system operators.

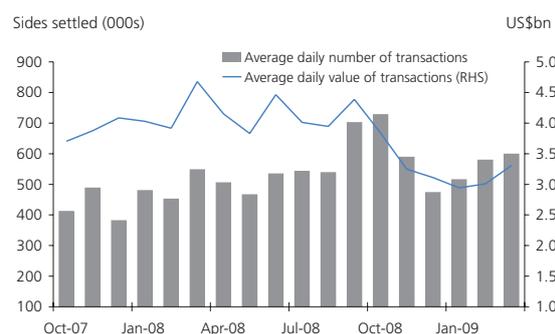
Operational performance remains satisfactory...

Amid a generally challenging environment, payment systems in New Zealand have continued to function satisfactorily over the past six months. Neither operational difficulties experienced by the Reserve Bank's Exchange Settlement Account System (ESAS) nor ongoing uncertainty about the solvency of some overseas financial institutions have caused significant disruption.

ESAS is one of the two major high-value payment systems for New Zealand dollar transactions. The other is the Continuous Linked Settlement (CLS) System operated by CLS Bank International.

As we reported in November, the period immediately after the failure of Lehman Brothers in September 2008 was particularly testing for these two systems. CLS Bank successfully managed the implications of Lehman's failure within its system while handling very high volumes and values of transactions. Increased nervousness on the part of domestic financial institutions about the financial condition of their overseas counterparties also resulted in payments in ESAS being submitted somewhat later in the day than was previously the case. However, these delays did not cause material disruptions to the flow of payments.

Figure 5.1
CLS transactions – values and volumes

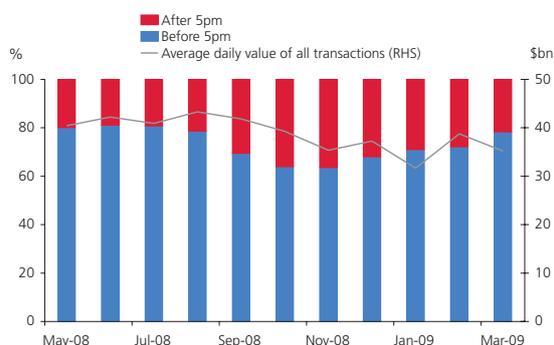


Source: CLS Bank.

...with fewer payments taking place late in the day...

More recently, the pressures on the CLS System and ESAS have eased. The volumes and values of CLS transactions have declined (figure 5.1), but there have still been occasional very large volume days. Although uncertainty regarding the solvency of overseas financial institutions remains, delays in submitting payments in ESAS have reduced, with a larger proportion of average daily payment value being settled during normal business hours (figure 5.2). After 5pm, settlements should be limited to CLS-related transactions (in the evening) and the settlement of bilateral inter-bank positions resulting from retail payments.

Figure 5.2
Average daily ESAS transactions settled before and after 5pm



Source: RBNZ.

...and high availability of the core payment systems.

Consistent with its core role in the payment system, the ESAS/Austraclear system has continued to exhibit high availability.¹ However, in recent months the operators of the system (the Reserve Bank's Financial Services Group) have needed to institute special procedures to manage operational problems with the system. While the ongoing existence of these problems and the need for special procedures to manage them suggest a small increased risk to financial stability, payment flows over the period have not been significantly disrupted. The Financial Services Group has worked with its technology support provider to thoroughly investigate the problems and to identify and implement the temporary management process and longer-term solutions.

Well-designed payment systems contribute to financial stability...

Recent international events have highlighted the importance of well-designed payment systems in maintaining financial stability. For example, the smooth operation of the CLS system has meant that financial institutions have been able to confidently transact with other institutions knowing that those transactions can be settled in a way that will not result in greater credit exposures. CLS virtually eliminates foreign

exchange settlement risk² by allowing settlement to occur on a payment versus payment (P-v-P) basis, such that an institution using the system delivers the sold currency and receives the bought currency simultaneously.

Similarly, the fact that payments in ESAS occur individually on a gross basis across accounts at the Reserve Bank and are final and irrevocable at the time they are settled means that users incur no credit exposures to other users through participation in the system. Liquidity risk is minimised by the high aggregate levels of settlement cash maintained in the system and by the steps that the Reserve Bank has taken to ensure that participants are able to readily access additional cash (see Box D in Chapter 4).

Despite the smooth functioning of payment systems and the way that they have performed as intended, some system operators have initiatives either in train or planned that will, when implemented, further reduce risks to financial stability.

The operators of the CLS system, for example, are developing plans to increase the proportion of foreign exchange trades eligible for settlement on P-v-P basis. While CLS Bank is always looking for ways to increase the use of its system, recent developments reflect a demand from financial institutions to reduce settlement risk, especially in times of uncertainty about the solvency of participants, even if it might mean an increase in costs.

There appears to be plenty of scope to expand the use of CLS. Last year the Committee on Payment and Settlement Systems released the final report on an international survey of foreign exchange settlement practices conducted in 2006.³ The survey found that about 30 percent of foreign exchange obligations were still settled in ways that potentially exposed the parties involved to foreign exchange settlement risk.

¹ Austraclear is the security settlement system operated by the Reserve Bank. Austraclear and ESAS are closely linked technically and problems with computer hardware or communications networks will typically affect both systems.

² Foreign exchange settlement risk is the risk that one party to a foreign exchange trade pays out the currency it sold but does not receive the currency it bought.

³ The Committee on Payment and Settlement Systems is a standing committee reporting to the G10 central bank governors. Its 2008 report on "Progress in reducing foreign exchange settlement risk" is available at www.bis.org/publ/eps83.htm.

In general terms, the Reserve Bank supports initiatives that would allow more foreign exchange transactions to be settled on a P-v-P basis. One useful step would be for the CLS System to settle the same-day US dollar trades to which New Zealand banks have a significant exposure. Potential solutions to this issue have not had support from the prominent system participants in the past because of the cost of funding same-day trades in the North American market. However, in the current environment, where participants are focused on reducing settlement risk, the viability of these potential solutions might be reviewed.

...and a project is underway to reduce settlement risk in retail payment systems...

Domestically, the New Zealand Bankers' Association (NZBA) is leading a project to implement arrangements designed to eliminate settlement risk exposures between participants in the retail payment system. The planned approach, known as "Settlement Before Interchange" (SBI), involves inter-participant settlement of amounts owing from one participant to another due to retail payments initiated by customers before details of those payments are exchanged. Essentially, payment details would not be interchanged until payment-system participants have established that their customers had sufficient available funds.

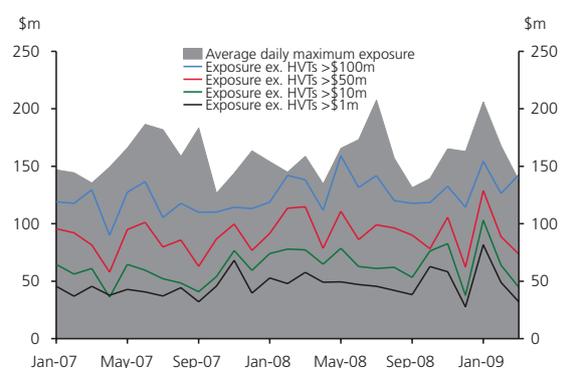
Work on the implementation of SBI has been progressing and the current expectation is that the new arrangements will be implemented in 2011.

...but some sources of risk continue to cause concern.

The Reserve Bank remains concerned about two other aspects of the retail payment system. As discussed in previous Reports, a significant volume of high-value transactions (with value of more than \$1 million) regularly flow through the Interchange and Settlement Limited (ISL) switch, causing a significant increase in net bilateral exposures between banks (figure 5.3). The industry believes that SBI will address this issue. However, should that not be the case, the Reserve Bank will consider other steps, including the possible diversion of high-value transactions out of the retail payment system and into ESAS.

The second area of concern is that, although SBI will eliminate settlement risk between participants in the retail payment system, a bank failure during the period between customers submitting a payment instruction and the payment being sent for settlement could cause significant disruption. The Reserve Bank intends to undertake further work with the banks to look at what could be done to reduce this risk.

Figure 5.3
Average daily maximum exposures between banks
(bilateral net exposures)



Source: New Zealand Bankers' Association.
Note: Daily maximum exposures between banks, averaged over the month. HVTs are high-value transactions.

As signalled in the November 2008 Report, the Reserve Bank is enhancing its approach and engagement on payment system matters. Providing guidance to operators and participants in relation to our policy aims represents one strand of this more active approach. We have also stepped up our monitoring and assessment of payment system developments and risks. We have instituted a programme of regular meetings with payment system operators and we are reviewing our existing information requirements. Our aim is to ensure that we can capture the relevant system information to provide a picture of both individual system performance and the interdependencies between payment systems, as well as to assess systems against the appropriate international standards. In addition, we hosted in December a payments industry forum and we intend to arrange similar gatherings in the future.

In addition to SBI, the NZBA has also been leading a project seeking to give participants in the retail payment system direct representation in the governance of that system and to allow non-bank financial institutions access to the retail payment system. The new arrangements were due to be implemented in April 2009, but implementation has had to be delayed until October 2009.

6 Recent developments in financial sector regulation

Following the introduction of the Crown's deposit guarantee scheme (DGS) in October 2008, the Reserve Bank has accelerated implementation of key components of the new prudential regime for non-bank deposit takers in New Zealand. Regulations concerning minimum capital requirements and related-party exposures will be introduced later in 2009. The new regime also requires non-bank deposit takers (above a minimum size threshold) to obtain credit ratings by March 2010 and the Reserve Bank is currently working with other stakeholders to improve public understanding of the role and use of ratings. It is particularly important for institutions that will be required to have ratings to approach an approved rating agency as soon as possible to avoid breaching the law.

The Reserve Bank is also continuing to strengthen the prudential framework applying to New Zealand's registered banks. Following public consultation earlier in the year, a revised liquidity policy will be introduced within the next few months. New arrangements for the treatment of agricultural exposures in the Basel II capital adequacy framework are being developed.

Other significant regulatory initiatives underway include amendments to Part 5C of the Reserve Bank Act, which will give the Reserve Bank (working alongside Securities Commission) a larger role with respect to securities settlement systems, and developing new legislation to strengthen New Zealand's compliance with international standards for preventing money laundering and terrorist financing.

6.1 Non-bank deposit taker (NBDT) prudential regime

Since the November *Report*, substantial progress has been made in developing the key components of the prudential regulatory regime for non-bank deposit takers (NBDTs), and relevant regulations will be introduced later in 2009 and 2010. The Reserve Bank is currently developing regulations for capital, related party, and credit rating requirements.

The new regulations will not be a 'quick fix' for the current challenges facing the NBDT sector. Rather, the regulations aim to raise standards across the industry and improve the future resilience of the sector. They are designed not to stifle risk taking by deposit takers, nor are they intended to ensure that individual institutions will never fail, or insulate depositors from loss in the event of failure.

Compliance with prudential requirements (apart from the credit rating requirement) will be monitored by trustees, who will continue to be the frontline supervisors of individual non-bank institutions. Trustees' record as the finance company sector's frontline supervisors has been under intense scrutiny following recent failures in the sector, and the new requirements will require trustees to be proactive, focused and assertive with their supervisory role. The Reserve Bank is required to review the NBDT regime, including the role of trustees, within five years.

On 19 December 2008, the Reserve Bank released a consultation paper proposing related party and minimum capital ratio requirements, and has made a number of changes to the proposed requirements as a result.

The regulatory approach we propose to take for restrictions on related party exposures for NBDTs is broadly

Table 6.1

Timetable for non-bank deposit taking prudential regime

Components of regime	Date of implementation
Capital, related party and governance requirements	Mid-2009
Risk management requirement	1 September 2009
Draft liquidity policy for consultation	Q4 2009
Credit rating requirement	1 March 2010

Note: For the capital, related party and governance requirements, the standard transition period is likely to be 12 months once the regulation has been implemented.

similar to the regime for registered banks, but has been simplified and calibrated to the NBDT sector. It is proposed that a limit on aggregate credit exposures of the deposit taker or the borrowing group to all related parties must be specified in the trust deed and fixed by agreement between the deposit taker and the trustee, provided it does not exceed a maximum limit of 15 percent of tier one capital. The intention is to have the regulations in place around the middle of 2009, although the Reserve Bank envisages a one-year transitional path for most NBDTs before they are required to be fully compliant.

The proposed capital ratio measurement framework is based on the standardised Basel II bank capital regime but differs in the following key respects:

- only capital that qualifies as tier one capital under the bank regime counts as regulatory capital; and
- risk weight classes are more finely differentiated by lending type and by security cover. The intention is that NBDT risk weights should broadly match those that would be generated if the more advanced version of the Basel II bank capital framework was applied to the sector. This means that risk will attract a similar amount of capital whether it sits with a bank or an NBDT, allowing investors and analysts to make more meaningful comparisons of capital ratios across the banking and NBDT sectors.

NBDTs will be required to have a minimum capital ratio of 8 percent if they hold a credit rating, and 10 percent if they do not. The higher ratio requirement is intended to compensate for the lesser degree of outside scrutiny applied to unrated NBDTs.

On 17 February 2009, the Reserve Bank released a consultation paper proposing the type of credit rating NBDTs

are required to hold from 1 March 2010. The paper proposes the use of local currency, long term, issuer ratings for deposit takers. In light of concerns raised about the compliance cost of credit ratings on small- to medium-sized NBDTs, the Reserve Bank is proposing raising the threshold for an exemption from the requirement to hold a credit rating to \$20 million (of liabilities). This would provide significant relief for a small number of NBDTs while still covering the vast majority of assets held by the NBDT sector.

Credit ratings are one of the most simple and effective ways to inform depositors and financial advisors of an NBDT's risk profile and to facilitate comparison of risks across NBDTs. Moreover, credit ratings should strengthen the incentives for NBDTs to develop and maintain sound governance and risk management practices, and reduce the need for more comprehensive and expensive prudential regulation and supervision.

The Reserve Bank, in conjunction with other government agencies and stakeholders, will develop proposals for disclosure and public education to improve depositors' understanding and use of credit ratings. The aim is to build on the Reserve Bank's previous articles on credit ratings, which include 'A Users' Guide to Credit Ratings' (Reserve Bank *Bulletin*, September 2008). This in turn should support the efficacy of the regime.

The Reserve Bank stresses the need for NBDTs to obtain credit ratings from rating agencies approved by the Reserve Bank¹ as soon as possible. Failure to hold a rating when they become mandatory from 1 March 2010 would constitute a breach of the law. There are about 15 NBDTs with assets

¹ On 19 March 2009, the Reserve Bank approved Fitch Ratings, Moody's Investors Services, and Standard & Poor's Ratings Services for the purposes of Part 5D of the Reserve Bank of New Zealand Act 1989.

Table 6.2

NBDT credit ratings, as at 1 May 2009

Company	Rating	Issuer
Equitable Mortgages Limited	BB	Standard & Poor's
Hanover Finance Limited	D	Fitch Rating International
Hastings Building Society	BB	Fitch Rating International
Geneva Finance Limited	CC	Standard & Poor's
Marac Finance Limited	BBB-	Standard & Poor's
Medical Securities Limited	A-	Standard & Poor's
Nelson Building Society	BB	Fitch Rating International
PSIS Limited	BB+	Standard & Poor's
South Canterbury Finance Limited	BBB-	Standard & Poor's
UDC Finance Limited	AA	Standard & Poor's
Wairarapa Building Society	BB+	Standard & Poor's

greater than \$100 million who have yet to obtain a credit rating.² NBDTs with current total assets above \$100 million who already hold a credit rating are shown in table 6.2.

Other NBDT developments expected over the near term will include consultation with the industry on draft regulations for liquidity requirements in late 2009, and issuing guidelines on risk management in the first half of 2009. NBDTs are required to have and comply with a risk management programme with effect from 1 September 2009, and the guidelines will outline sound principles for NBDTs' reference.

The overall objective of liquidity regulations will be to ensure that a NBDT maintains prudent levels of liquidity to enable it to withstand a plausible range of liquidity shocks. The need for NBDTs to maintain robust liquidity positions was brought into sharp focus by events prior to the introduction of the Crown deposit guarantee scheme, which resulted in a number of institutions experiencing an outflow of liquid assets.

Governance requirements that each institution (apart from credit unions) have at least two non-executive directors and a non-executive chairperson, to help ensure that the interests of depositors are represented at board level, will come into force through an Order in Council. This is expected to be around the middle of 2009.

Further legislation, expected to be introduced later in 2009, will put in place some important remaining elements of the prudential regime. These will include licensing requirements, checks on the suitability and integrity of shareholders with control, directors, and senior managers, and crisis management powers for the Reserve Bank over the NBDT sector.

6.2 Liquidity

The Reserve Bank is finalising new prudential liquidity rules for registered banks (discussed in more detail in the November 2008 *Report*). The policy seeks to ensure that banks maintain robust liquidity positions over both short and longer horizons; have appropriate internal arrangements for liquidity-risk management; and provide clear and useful information to the Reserve Bank and the public about their liquidity risk and how they manage it.

The finalised policy will be publicly available in around a month (late May or early June 2009). Reserve Bank consultation with individual banks about their conditions of registration (setting out their obligations under the policy and their pathways to achieving compliance with its requirements) is expected to be completed in the third quarter of 2009.

² This figure excludes NBDTs in moratorium. It has yet to be determined whether such companies will be required to hold a credit rating.

6.3 Rural exposures in Basel II

During 2007 and 2008, the Reserve Bank accredited the four largest banks in New Zealand to use internal models for credit and operational risk, as the basis for calculating their minimum regulatory capital requirements under Basel II.

Among other conditions, the accreditation decisions required the banks concerned to improve their modelling of credit risks for farm lending, focusing in particular on key downturn loss given default (LGD) inputs. Given the commonality of the key risk drivers between banks, the Reserve Bank undertook to lead modelling work on risks in farm lending.

The Reserve Bank has now completed its initial work and has discussed the capital implications with the 'internal modelling' banks. In the Reserve Bank's view, the banks' models are not currently generating sufficient capital requirements for two main reasons. First, they do not take sufficient account of the risk of a sharp fall in farm land prices. Second, the internal model framework incorporates an overly optimistic view of the extent that risks in the sector can be diversified.

To address these concerns the Reserve Bank proposes to amend the relevant bank capital adequacy framework in the following respects.

- Specifying a minimum set of downturn LGDs differentiated by loan to valuation ratio. These will be higher than those banks are currently using; and
- applying the standard corporate default correlation coefficient to farm loans. This will reduce assumed diversification benefits, consistent with the characteristics of the farming sector in New Zealand.

The Bank will formally consult with banks on the detail of these proposals, and the timing of their introduction, in the near future.

6.4 Changes to Part 5C of the Reserve Bank Act

Amendments are being made to Part 5C of the Reserve Bank Act to broaden its scope from payment systems to include settlement systems generally. Currently, Part 5C provides for the Reserve Bank to designate a settlement system that settles payments. While it is also currently possible to designate a settlement system that settles physical securities, the designation may only provide protection of irrevocability to the settlement of the payment component of a transaction. The settlement of the physical security may not be protected.

The changes to Part 5C will give settlement systems operating in New Zealand the option of applying for designation and being subjected to relevant international standards by the Reserve Bank and the Securities Commission. In return, a designated settlement system will receive additional legal protections to support the integrity of the system in the case of a participant's default.

This broader role will operate jointly with the Securities Commission. Each of the joint regulators will exercise their powers for different purposes. In the Securities Commission's case, its powers are for the purpose of:

- (a) promoting the integrity and effectiveness of securities markets and settlement systems in New Zealand; and
- (b) enhancing the confidence of investors and other market participants in securities markets and settlement systems in New Zealand.

In the Reserve Bank's case, our powers are for the purpose of:

- (a) promoting the maintenance of a sound and efficient financial system; or
- (b) avoiding significant damage to the financial system that could result from the failure of a participant in a settlement system.

The joint regulators have commenced work in anticipation of the new regulatory changes, including agreeing on application fees, and a memorandum of understanding between regulators. The legislation is expected to be enacted by the third quarter of 2009.

6.5 Anti-money laundering

In the first half of 2009, the Paris-based Financial Action Task Force (FATF) together with the Asia Pacific Group on Money Laundering is evaluating New Zealand's compliance with its anti-money laundering and countering the financing of terrorism (AML) recommendations. A report on this evaluation is expected to be released by the FATF toward the end of this year.

Over recent years, the Ministry of Justice has led work on new legislation designed to bring New Zealand broadly in line with current FATF recommendations.³ This is currently expected to be introduced into Parliament in a Bill in the middle of the year. It is expected that the resulting legislation will:

- place a set of core obligations on reporting entities (for example, financial institutions, financial advisors, and casinos);
- provide for AML supervisors, governance structures for supervisors, and powers for supervisors; and
- provide a penalty and an enforcement regime to encourage compliance.

As provided for in the FATF recommendations, it is proposed that New Zealand will adopt a risk-based approach for AML systems and supervision. In general, it is considered that this approach will help mitigate compliance, supervisory and economic costs, and is expected to be a key part of the proposed reforms.

³ Details are on the Ministry of Justice website: www.justice.govt.nz/fatf/index.html.

Graphical appendix¹

International

Figure A1a

Real GDP growth

(annual percent change)

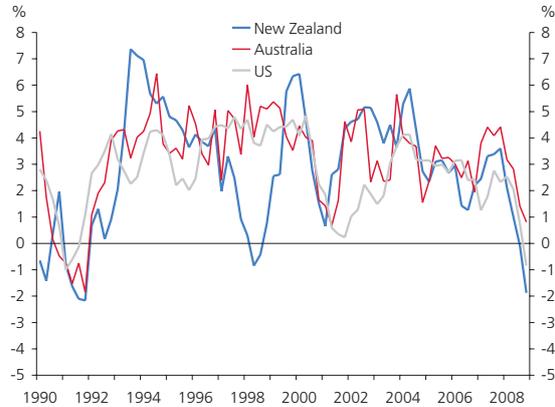


Figure A1b

Real GDP growth

(annual percent change)

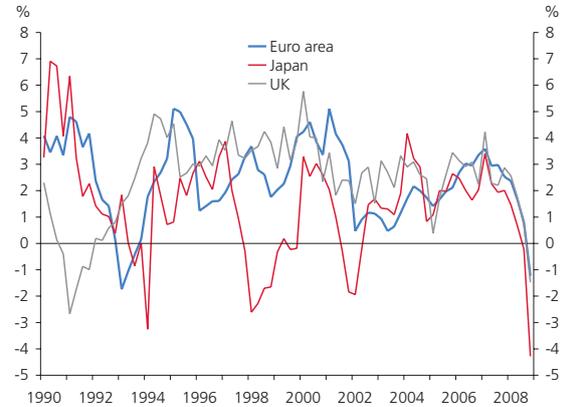


Figure A2a

Current account balance

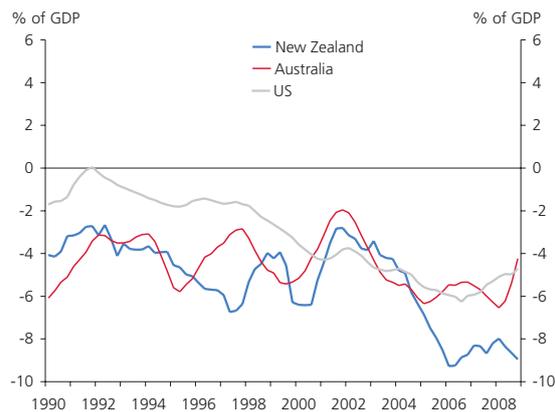


Figure A2b

Current account balance

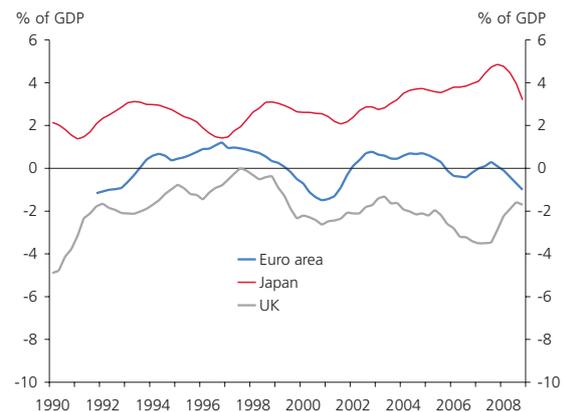


Figure A3

Trade-weighted exchange rate indices

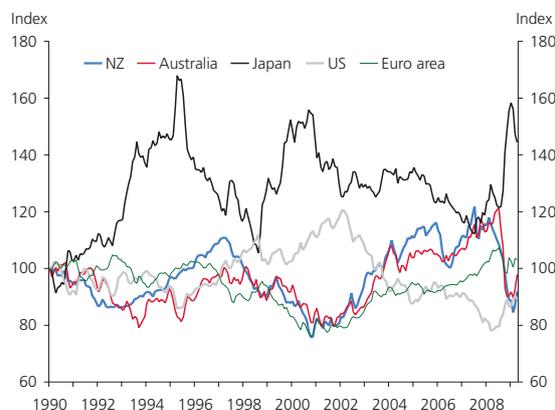
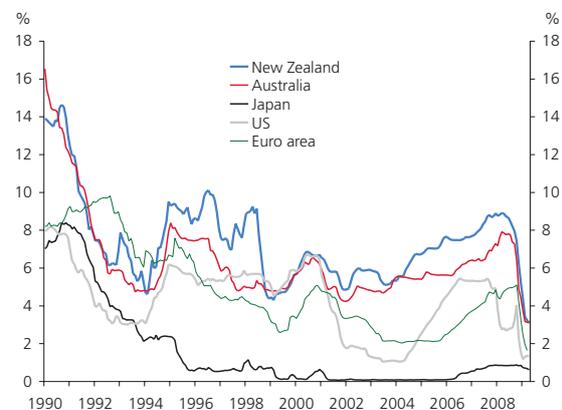


Figure A4

Short-term interest rates



¹ The data contained in this appendix was finalised on 24 April 2009. Definitions and sources are listed on pages 56-57.

Asset prices

Figure A5

Equity market indices

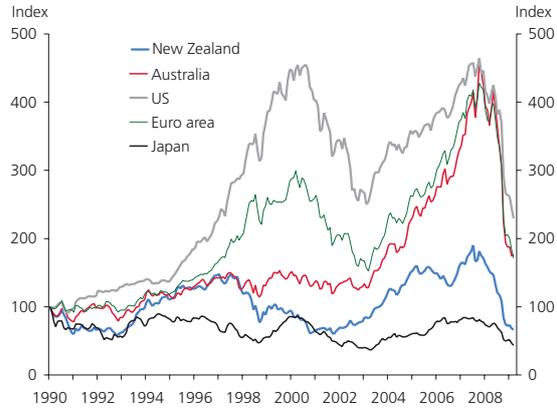
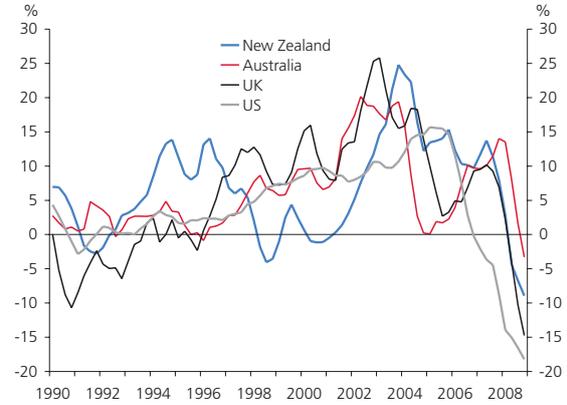


Figure A6

House price inflation (annual percent change)



New Zealand

Figure A7

Household debt and servicing costs

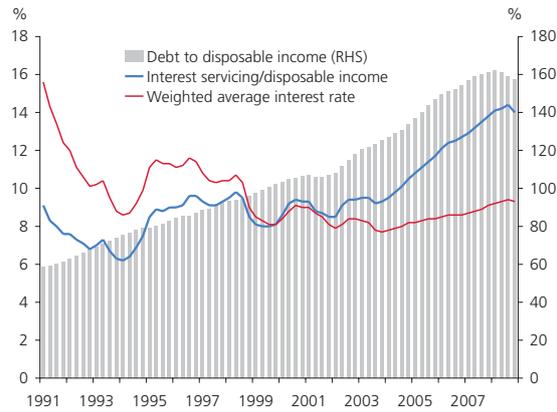


Figure A8

Household assets and liabilities

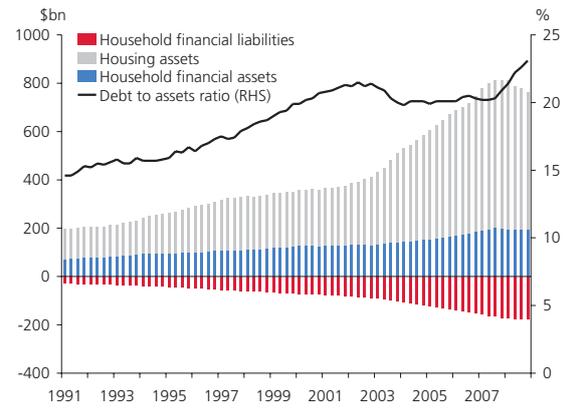


Figure A9

Property price inflation (annual percent change)

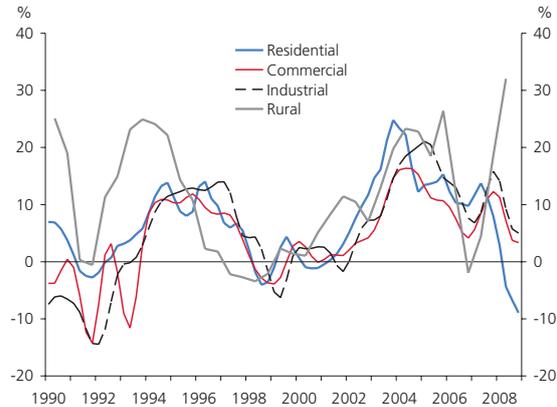


Figure A10

Government debt

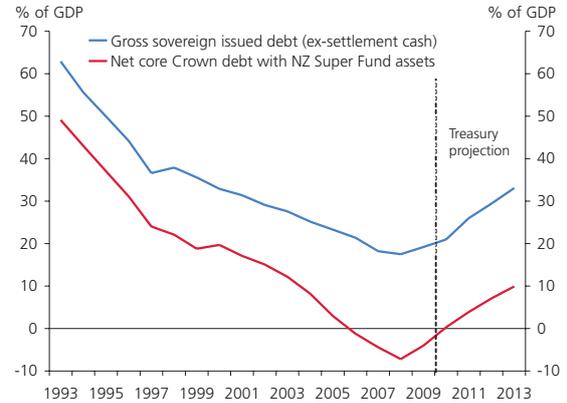


Figure A11
Government bonds on issue and turnover

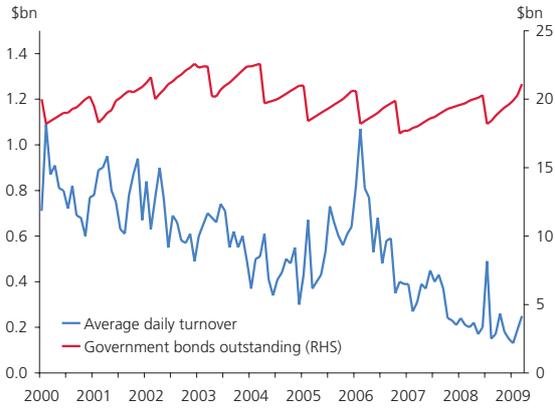


Figure A12
Ten-year government bond spreads

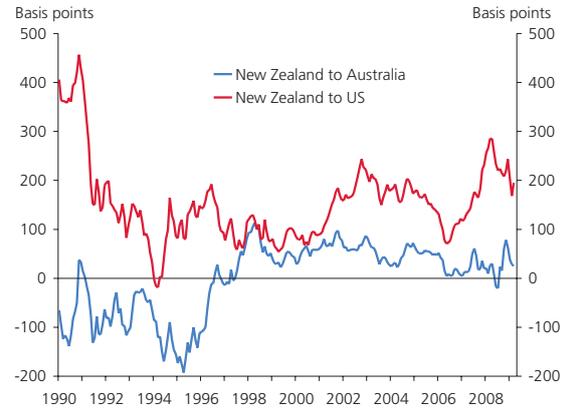


Figure A13
Yields on New Zealand government securities

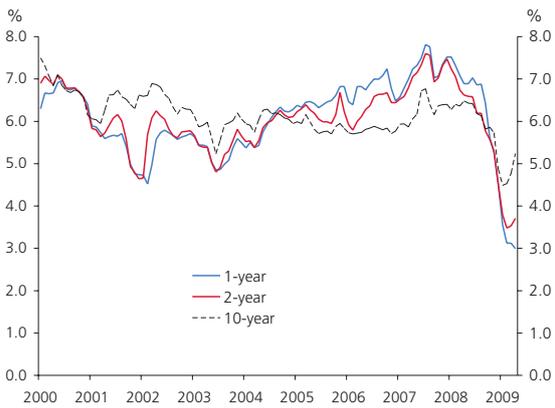


Figure A14
Non-resident holdings of New Zealand government securities

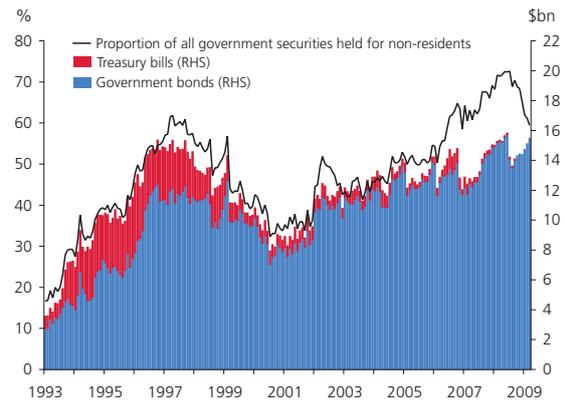


Figure A15
NZD/USD turnover in domestic markets

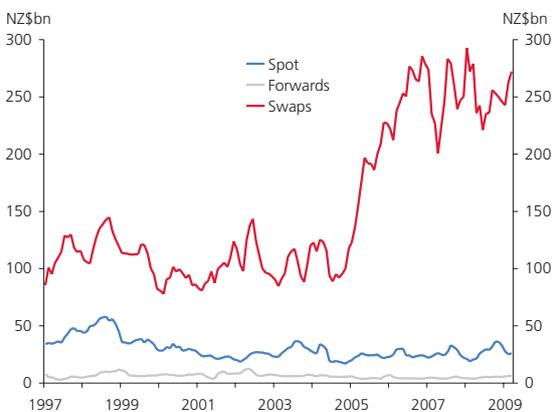


Figure A16
NZD/USD and implied volatility

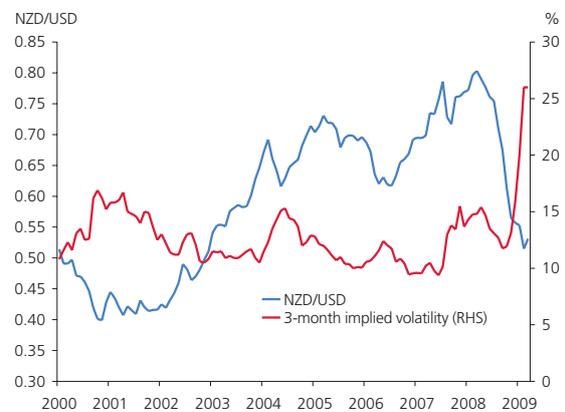


Figure A17

OCR, estimated business lending rate and effective mortgage rate

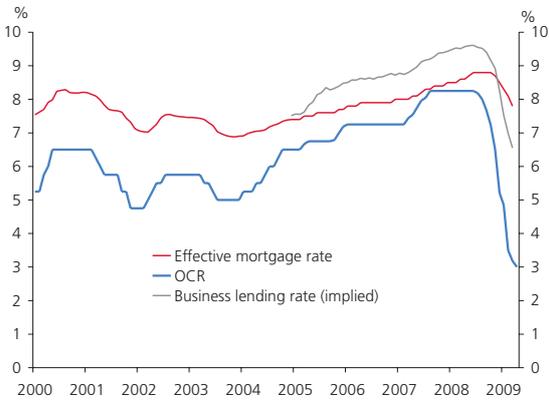


Figure A18

Equity market capitalisation

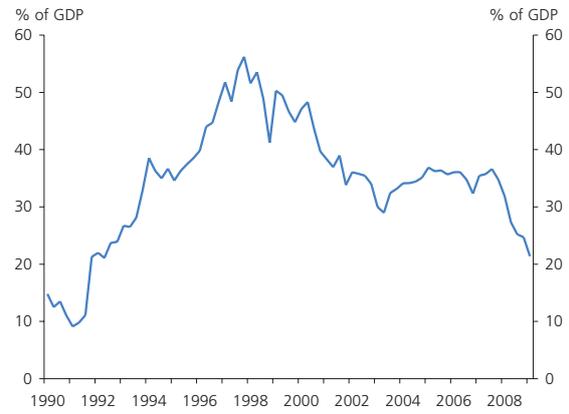
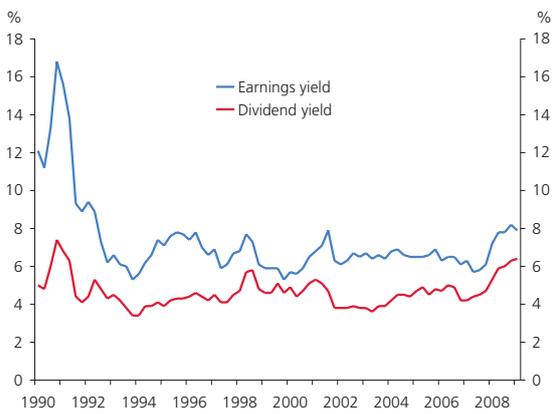


Figure A19

Earnings and dividend yields



Banking sector indicators

Figure A20

System-wide capital adequacy ratios

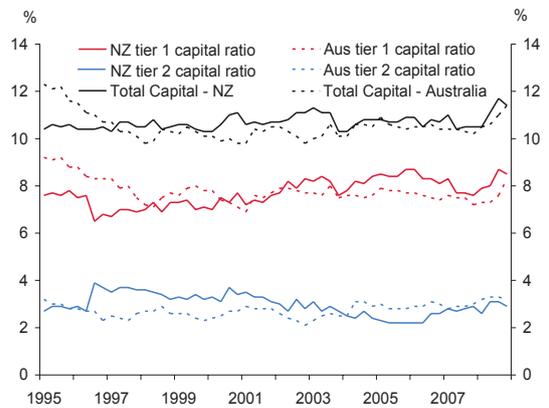


Figure A21

Asset quality

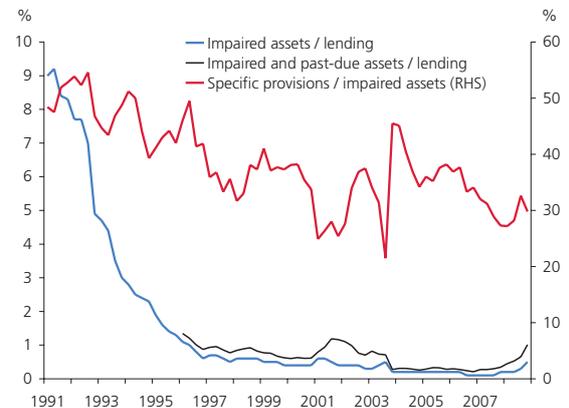


Figure A22
Return on assets



Figure A23
Operating costs to income

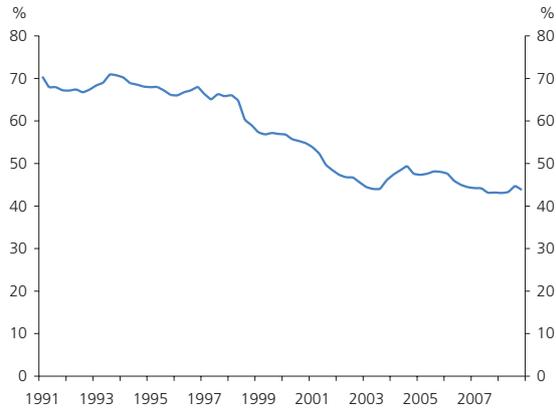


Figure A24
Interest margin

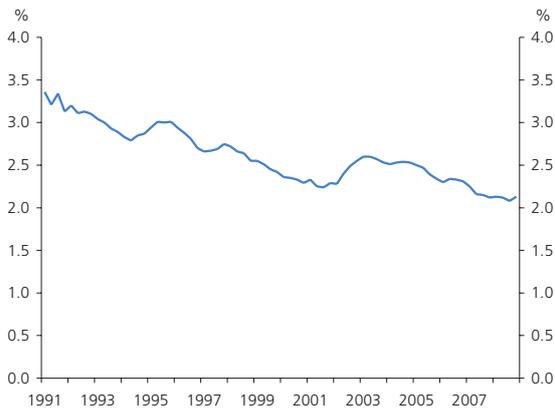


Figure A25
Registered bank offshore funding

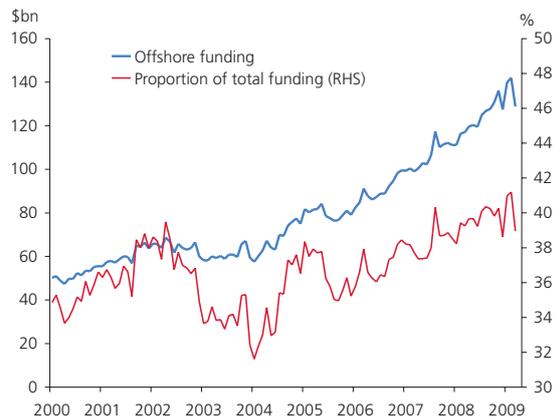


Figure A26
Bank asset composition

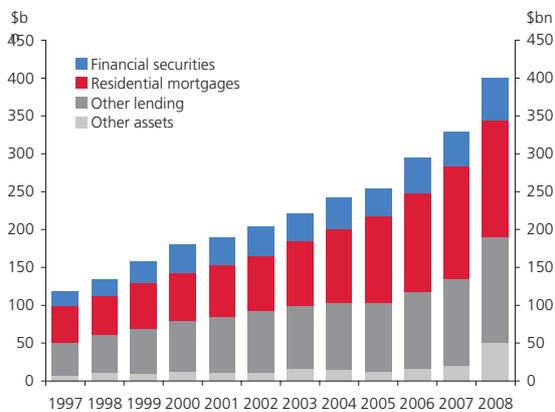


Figure A27
Bank funding composition

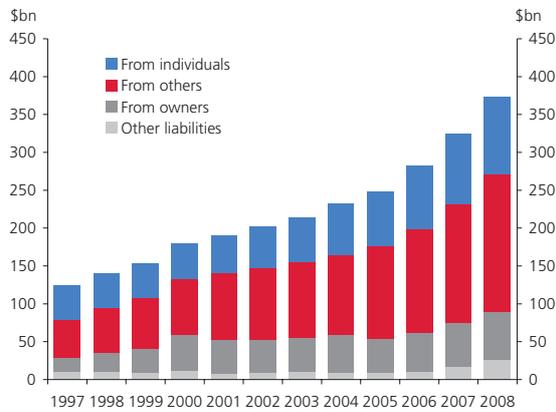


Figure A28

Bank asset growth

(annual percent change)

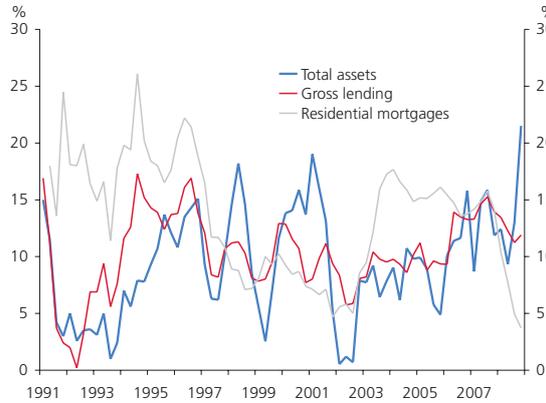
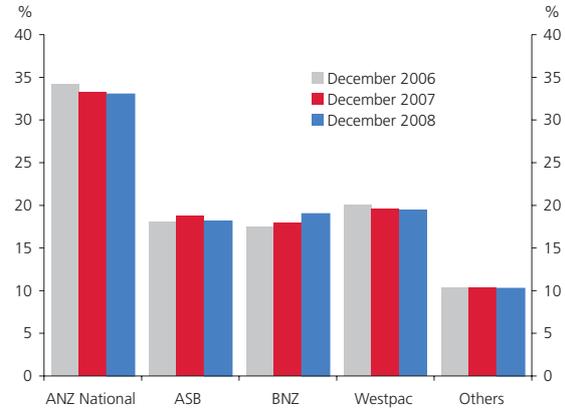


Figure A29

Bank market share



Non-bank lending institutions

Figure A30

NBLI asset composition

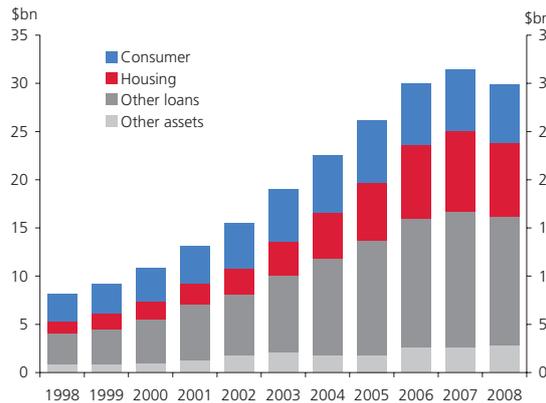
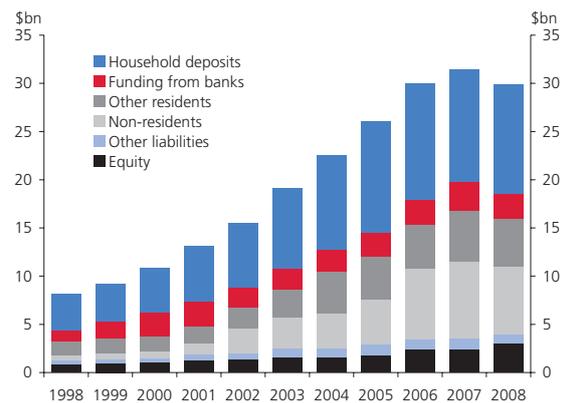


Figure A31

NBLI funding composition



New Zealand financial system assets and liabilities

Table A1

Financial system liabilities

As at 31 December \$bn	1990	1995	2000	2005	2006	2007	2008
Banks							
Households	24	32	41	61	70	79	90
Other residents	29	35	55	84	90	98	111
Non-residents	11	22	56	85	96	111	128
Other liabilities	14	14	28	24	39	41	71
Total	78	103	180	254	294	329	400
Other non-bank lending institutions							
Households	2	3	5	12	12	12	9
Other residents	3	2	3	7	7	8	7
Other funding and liabilities	1	1	2	8	11	12	11
Total	6	6	10	26	30	31	27
Funds under management							
Household assets	25	41	56	58	65	65	56
Other sector assets	2	1	4	6	7	7	6
Total	27	42	60	64	72	72	62
Total financial system liabilities	111	151	250	344	396	433	489

Table A2

Financial system assets

As at 31 December \$bn	1990	1995	2000	2005	2006	2007	2008
Banks							
Households	20	42	66	119	135	153	162
Other residents	36	45	72	101	113	128	148
General government	8	6	7	6	3	4	5
Non-residents	2	2	17	12	14	15	16
Other assets	12	8	18	15	29	30	68
Total	78	103	180	254	294	329	400
Other non-bank lending institutions							
Households	2	3	5	12	14	15	12
Other residents	3	2	4	12	13	14	13
Other assets	1	1	1	2	3	3	3
Total	6	6	10	26	30	31	27
Funds under management							
Domestic fixed interest	na	na	27	26	27	28	28
Domestic equities	na	na	7	8	10	10	7
Domestic other	na	na	4	3	4	4	4
Overseas investments	na	na	22	26	30	31	23
Total	27	42	60	64	72	72	62
Total financial system assets	111	151	250	344	396	433	489

Totals and sub-totals may not add due to rounding.

Source: RBNZ surveys and registered banks' GDS.

Notes apply to tables A1 and A2.

Note: Figures for non-bank lending institutions incorporate securitised assets. Counterpart funding is included in 'other residents for NBLIs'. For these institutions, securitised assets represent over 13% of total assets in 2008. For registered banks in 2008, securitised assets represent less than 0.5% of the total of GDS assets reported. General insurance liabilities and assets are not included. Funds under management and non-bank lending institution data has been revised from 2000.

Table A3

New Zealand registered banks

Registered bank's name	Market share ¹	Credit ratings ²			Ultimate parent	Country of parent
		S&P	Moody's	Fitch		
ABN AMRO Bank NV (B) ³	0.4	A+	Aa2	AA-	Royal Bank of Scotland Group PLC	UK
Australia and New Zealand Banking Group Ltd (B) ⁴	-	AA	Aa1	AA-	Australia and New Zealand Banking Group Limited	Australia
ANZ National Bank Limited	33.1	AA	Aa2	AA-	Australia and New Zealand Banking Group Limited	Australia
ASB Bank Limited	16.3	AA	Aa2	-	Commonwealth Bank of Australia	Australia
Commonwealth Bank of Australia (B)	1.9	AA	Aa1	-	Commonwealth Bank of Australia	Australia
Bank of New Zealand	19.0	AA	Aa2	-	National Australia Bank	Australia
Citibank N A (B)	1.0	A+	A1	A+	Citigroup Inc.	USA
Deutsche Bank Aktiengesellschaft (B)	1.0	A+	Aa1	AA-	Deutsche Bank Aktiengesellschaft	Germany
JPMorgan Chase Bank, N.A. (B)	0.0	AA-	Aa1	AA-	JPMorgan Chase & Co	USA
Kiwibank Limited	2.4	AA-	-	-	New Zealand Post Limited	New Zealand
Kookmin Bank (B)	0.1	A	A2	-	Kookmin Bank	South Korea
Rabobank Nederland (B)	0.6	AAA	Aaa	AA+	Rabobank Nederland	Netherlands
Rabobank New Zealand Limited	1.5	AAA	-	-	Rabobank Nederland	Netherlands
Southland Building Society	0.6	-	-	BBB	Southland Building Society	New Zealand
The Bank of Tokyo-Mitsubishi UFJ Ltd (B)	0.3	A+	Aa2	-	Mitsubishi UFJ Financial Group Inc.	Japan
The Hongkong and Shanghai Banking Corporation Limited (B)	1.5	AA	Aa1	AA	HSBC Holdings PLC	UK
TSB Bank Limited	0.9	BBB+	-	-	TSB Community Trust	New Zealand
Westpac Banking Corporation (B)	5.4	AA	Aa1	AA-	Westpac Banking Corporation	Australia
Westpac New Zealand Limited	14.0	AA	Aa2	AA-	Westpac Banking Corporation	Australia

¹ Registered bank's assets as a proportion of the total assets of the banking system, as at 31 December 2008.

² Current credit rating at 24 April 2009.

³ ABN Amro intends to deregister as a bank in New Zealand during May.

⁴ Australia and New Zealand Banking Group Limited was registered on 5 January 2009.

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

Table A4
Selected non-bank lending institutions' (NBLI) assets and liabilities

	Non-deposit-taking finance companies						Deposit-taking finance companies						Savings institutions						Total NBLIs			
	\$m		Growth ¹		% pa		\$m		Growth ¹		% pa		\$m		Growth ¹		% pa		\$m		Growth ¹	
	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08
NZD Funding																						
NZ resident households	-	-	-	-	-	-	5,907	6,081	3%	4,212	2,653	-37%	10,119	8,734	-14%							
Other funding ²	3,479	3,326	-4%	3,792	2,946	-22%	305	287	-6%	593	235	-60%	7,864	6,507	-17%							
Non-residents	6,900	6,049	-12%	10,004	9,314	-7%	10,004	9,314	-7%	123	72	-41%	7,328	6,408	-13%							
Total NZD funding	10,379	9,375	-10%	10,004	9,314	-7%	10,004	9,314	-7%	4,928	2,960	-40%	25,311	21,649	-14%							
Foreign currency funding	149	162	9%	249	281	13%	249	281	13%	-	-	-	398	443	11%							
Other liabilities	672	410	-39%	291	249	-14%	291	249	-14%	98	50	-49%	1,061	709	-33%							
Capital and reserves	299	995	233%	1,105	1,035	-6%	1,105	1,035	-6%	440	341	-23%	1,844	2,371	29%							
Total Liabilities	11,499	10,942	-5%	11,649	10,879	-7%	11,649	10,879	-7%	5,466	3,351	-39%	28,614	25,172	-12%							
NZD lending to residents																						
Farm lending	109	128	17%	880	999	14%	880	999	14%	501	104	-79%	1,490	1,231	-17%							
Business lending	2,632	2,515	-4%	5,561	4,862	-13%	5,561	4,862	-13%	787	491	-38%	8,980	7,868	-12%							
Housing lending	3,873	3,134	-19%	1,132	1,070	-5%	1,132	1,070	-5%	3,200	1,650	-48%	8,205	5,854	-29%							
Consumer lending	3,203	3,304	3%	1,894	1,620	-14%	1,894	1,620	-14%	401	393	-2%	5,498	5,317	-3%							
Total NZD loans by sector	9,817	9,081	-7%	9,467	8,551	-10%	9,467	8,551	-10%	4,889	2,638	-46%	24,173	20,270	-16%							
Foreign currency loans	7	10	43%	621	543	-13%	621	543	-13%	-	-	-	628	553	-12%							
All other loans and assets ³	1,675	1,851	11%	1,560	1,785	14%	1,560	1,785	14%	577	713	24%	3,812	4,349	14%							
Total assets	11,499	10,942	-5%	11,648	10,879	-7%	11,648	10,879	-7%	5,466	3,351	-39%	28,613	25,172	-12%							
Memo item: Lending to non-residents	6	-	-100%	895	834	-7%	895	834	-7%	-	-	-	905	838	-7%							

Source: RBNZ – NBLI SSR. Includes NBLIs with total assets (including securitised lending) exceeding \$100m at relevant dates. Totals may not add due to rounding.

Notes:

¹ Percentage growth calculations are affected by entry of new respondents to the NBLI survey and recategorisation of assets and liabilities among NBLI groups.

² Counterpart funding to securitised loans is included here.

³ Includes, inter alia, claims on banks and NZD non-resident lending.

Savings institutions include building societies & credit unions with assets exceeding \$100m at relevant dates, and PSIS Limited.

Asset values for firms in receivership may not be updated to fully reflect market conditions (e.g. recovery estimates will largely not be reflected in recorded value). In this sense, given recent events, the survey is currently likely to understate the rate at which the non-bank deposit-taking sector is shrinking.

Notes to the graphical appendix

The appendix contains a suite of charts that appear regularly in the *Financial Stability Report*. They 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. <i>Datastream</i> .
2	Current account balance	Current account balance as a percentage of GDP, four-quarter total. <i>Datastream</i> .
3	Trade-weighted exchange rate indices	Trade-weighted indices, January 1990 = 100. <i>Bank of England</i> .
4	Short-term interest rates	Yields on 90-day bank bills. <i>Reuters</i> .
5	Equity market indices	Morgan Stanley Capital Indices, January 1990 = 100. <i>Datastream</i> .
6	House price inflation	Annual percentage change in national house price indices. <i>Datastream</i> , <i>Quotable Value Ltd</i> .
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 <i>Statistics New Zealand</i> , with <i>RBNZ</i> forecasts. The weighted average interest rate is obtained from <i>SSR</i> data for residential mortgages and <i>RBNZ</i> calculations for consumer interest rates.
8	Household assets and liabilities	Housing assets are the aggregate private sector residential dwelling value. Data is from <i>Quotable Value Ltd</i> from 1995, with <i>RBNZ</i> estimates based on the House Price Index for prior years. Household financial assets are as published annually by <i>RBNZ</i> , with aggregate quarterly figures interpolated prior to 1995, based on component estimates from then. Household liabilities are from <i>RBNZ</i> series as for figure A7.
9	Property price inflation	Annual percentage change in property price indices. Commercial and industrial property prices are interpolated from semi-annual figures. <i>Quotable Value Ltd</i> .
10	Government debt	Net core Crown debt is debt attributable to core Crown activities and excludes Crown entities and state-owned enterprises. Forecasts from December Fiscal and Economic Update (DEFU). <i>The Treasury</i> .
11	Government bonds on issue and turnover	Total government securities on issue and New Zealand government bond turnover survey. <i>RBNZ</i> .
12	Ten-year government bond spreads	Yield on 10-year benchmark New Zealand government bonds, less yield on US and Australian equivalents. <i>RBNZ</i> .
13	Yields on New Zealand government securities	<i>Reuters</i> , <i>RBNZ</i> .
14	Non-resident holdings of New Zealand government securities	<i>RBNZ</i> .
15	NZD/USD turnover in domestic markets	<i>RBNZ survey</i> . Three-month moving average of monthly totals.
16	NZD/USD and implied volatility	Standard deviation used to price three-month NZD/USD options. <i>UBS</i> , <i>RBNZ</i> .
17	OCR, estimated business lending rate, and effective mortgage rate	<i>RBNZ</i> estimates.
18	Equity market capitalisation	Total market capitalisation of firms listed on New Zealand Stock Exchange, as a percentage of annual nominal GDP. <i>Datastream</i> . Latest GDP value is estimated.

19	Earnings and dividend yields	Earnings and dividends as a percentage of total market capitalisation. <i>First New Zealand Capital</i> .
20	System-wide capital adequacy ratios	Capital as a percentage of risk-weighted assets for all locally incorporated banks. <i>Registered banks' general disclosure statements (GDS), Reserve Bank of Australia</i> .
21	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. <i>GDS</i> .
22	Return on assets	Net profits after tax and extraordinary items, as a percentage of average total assets, four-quarter average, for all registered banks. <i>GDS</i> .
23	Operating costs to income	Operating expenses as a percentage of total income, four-quarter average, for all registered banks. <i>GDS</i> .
24	Interest margin	Net interest income as a percentage of average interest-earning assets, four-quarter average, for all registered banks. <i>GDS</i> .
25	Registered bank offshore funding	<i>RBNZ</i> .
26	Bank asset composition	As at 31 December. <i>GDS</i> .
27	Bank funding composition	As at 31 December. <i>GDS</i> .
28	Bank asset growth	Year-on-year change in total assets of all registered banks. Gross lending before provisions. <i>GDS</i> .
29	Bank market share	Bank assets as a percentage of total assets of registered banks. <i>GDS</i> .
30	NBLI asset composition	Data are series-break adjusted by retaining the same non-bank lending institutions (NBLI) in the data-set. Levels therefore differ from tables A1 and A2 from 1998 to 2001, and for 2008. <i>RBNZ Annual Statistical Return and NBLI SSR</i> as at 31 December.
31	NBLI funding composition	Data are series-break adjusted by retaining the same NBLIs in the data-set. Levels therefore differ from tables A1 and A2 from 1998 to 2001, and for 2008. <i>RBNZ Annual Statistical Return and NBLI SSR</i> as at 31 December.