



Financial Stability Report

May 2019

Reserve Bank of New Zealand *Financial Stability Report*

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This report is published pursuant to section 165A of the Reserve Bank of New Zealand Act 1989, which states that a financial stability report must:

- (a) report on the soundness and efficiency of the financial system and other matters associated with the Bank's statutory prudential purposes; and
- (b) contain the information necessary to allow an assessment to be made of the activities undertaken by the Bank to achieve its statutory prudential purposes under this Act and any other enactment.

In addition, under the Memorandum of Understanding between the Minister of Finance and the Governor of the Reserve Bank of New Zealand, the Reserve Bank's *Financial Stability Report* will report on matters relating to the soundness and efficiency of the financial system, including any build-up of systemic risk, and the reasons for, and impacts of, the use of macro-prudential policy instruments.

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Financial Stability Report in pictures

May 2019



New Zealand's financial system is resilient to current risks

Risks to the financial system remain elevated and are largely unchanged in the past six months. Now is the time to improve financial system resilience and efficiency by increasing capital levels and addressing conduct challenges.



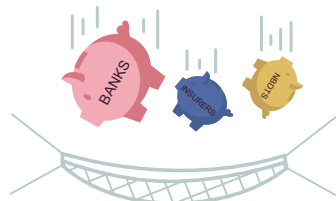
Some households and dairy farms are over indebted



LVR policy settings remain appropriate for now



High debt and asset prices could amplify global financial system disruptions



We have proposed larger capital buffers for the financial system



Good financial institution culture and conduct is critical to success



Some insurance products are becoming less affordable

Some households and dairy farms are over indebted

Some New Zealand households and dairy farms would face financial problems if their incomes fell or costs rose because they have high debt levels. Banks would face large losses if households and dairy farms defaulted on their loans at the same time as house prices and farm prices were falling.

The risk of this happening is small but it is possible. The risk has not changed much in the past six months.



LVR policy settings remain appropriate for now

The Reserve Bank imposes loan-to-value ratio (LVR) restrictions on banks' mortgage lending to improve the resilience of households and banks. The LVR restrictions are reviewed every six months.

Slower growth in household debt and house prices, alongside safer lending by banks, have allowed the LVR restrictions to be eased in the past two years. The current LVR restrictions remain appropriate for now, as household risks have not changed much in the past six months.



High debt and asset prices could amplify global financial system disruptions

Problems that develop overseas can harm New Zealand's financial system. The most concerning international risks relate to high asset prices and debt levels in many large countries, particularly China. High government debt and already low interest rates limit the ability of governments and central banks to further support economic growth. These risks have not changed much in the past six months.

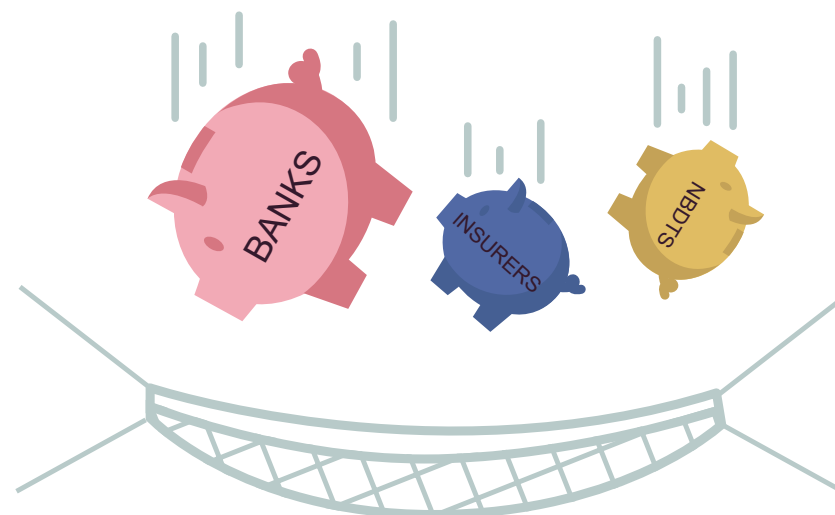
Longer term, climate change presents significant challenges for some industries and regions. The financial system must understand and adapt to climate change risks.



We have proposed larger capital buffers for the financial system

The Reserve Bank has proposed to gradually raise bank capital requirements to make the banking system safer. This reflects evidence that the costs of bank failures are higher than previously understood. We are now carefully reviewing public feedback on the proposals and expect to announce decisions by the end of November.

Separately, some insurers and non-bank deposit takers have capital buffers that would absorb only relatively small losses. These institutions should raise capital to reduce their risk of failure.



Good financial institution culture and conduct is critical to success

It is important that the financial system has a long-term customer focus to maintain public confidence and support financial system efficiency. Banks and insurers must respond to the challenges identified in the recent reviews of conduct and culture.

The Reserve Bank and Financial Markets Authority are working with banks and life insurers to ensure they have adequate plans to address the specific issues identified.



Some insurance products are becoming less affordable

The price of home and contents insurance for properties perceived to be at high risk from earthquake damage is increasing. We are working with industry to understand the impacts this will have on insurance provision more broadly. Owners of more vulnerable properties should be aware that insurance may become less affordable in the future, which may reduce the value of their homes.

Looking forward, as climate change risks become more acute, insurance for properties susceptible to rising sea levels and coastal inundation may become more expensive and difficult to obtain.



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May 2019



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Chapter 1

Financial stability risk and policy assessment



New Zealand's financial system is resilient to a broad range of economic risks.

New Zealand's financial system remains resilient to a broad range of economic risks. It remains vulnerable to severe, unlikely, risks that could cause many highly indebted New Zealand households and dairy farms to default. It is also vulnerable to international risks that could cause a major global economic recession. These vulnerabilities remain elevated but have been largely steady over the past six months. More work is needed to make the financial system more efficient and resilient to more severe risks. It is imperative to improve the resilience of New Zealand's financial system, while conditions are conducive.

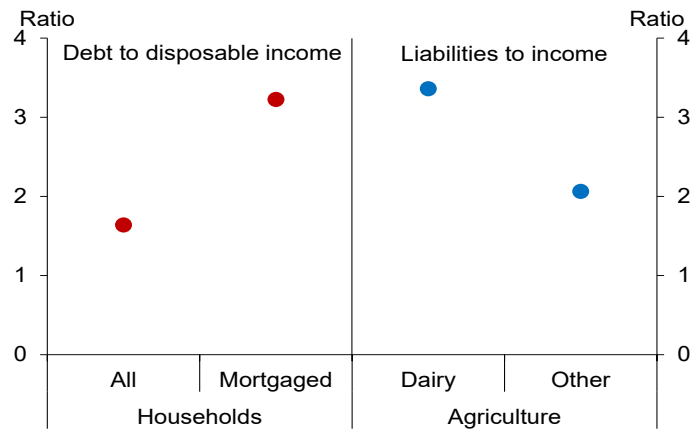
Domestic risks remain elevated and largely unchanged...

A material portion of New Zealand households and dairy farms have high debt levels that they would struggle to service if their incomes fell or costs rose (figure 1.1). Banks would face large losses if many borrowers defaulted on their loans, particularly in an environment of sharply falling house and farm prices (see chapter 2). This scenario is unlikely but it remains possible, if there were a large shock to New Zealand's economy or financial system.

A good guide to the financial resilience of a borrower is the ratio of their debt relative to their income (the 'debt-to-income (DTI) ratio'). The DTI ratio of the household sector is at a record high, despite the growth of debt slowing slightly in the past year. But the portion of mortgages going to households with high DTI ratios has fallen in recent years. If this continues, the number of highly indebted households will fall over time. Despite the growth of house prices slowing in the past year, national house prices remain at historical highs. House prices in Auckland have declined slightly, reducing the likelihood of a large and disorderly price fall.

Most dairy farms are profitable at current prices and should have been able to repay debt. However, around a third of dairy debt is held in farms with high DTI ratios. Many of these farms struggle to make profits and repay debt, despite good milk prices. This is particularly concerning as the costs of the dairy sector may rise in response to longer-term challenges, such as environmental and climate change policies. Restoring resilience in the sector will be a challenge for farms and their lenders. The willingness of banks to continue supporting the sector will be an important determinant of how smoothly the current risks will be reduced.

Figure 1.1
Debt-to-income ratio, by sector
(latest available data)



Source: RBNZ Bank Balance Sheet Survey, Stats NZ, RBNZ estimates.

Note: See the chart datapack for more information.

...and some international risks could still disrupt the global economy.

There remain a number of risks that could materially weaken the global economy or disrupt the global financial system, and would spill over to New Zealand (see chapter 3). Global economic growth has slowed in the past six months, but the most severe international risks remain largely unchanged. Severe risks relate to stretched asset prices and debt levels in many large economies, particularly China, and limited monetary and fiscal capacity in some countries to respond to downside risks. Longer term, climate change presents significant challenges for some industries and regions.

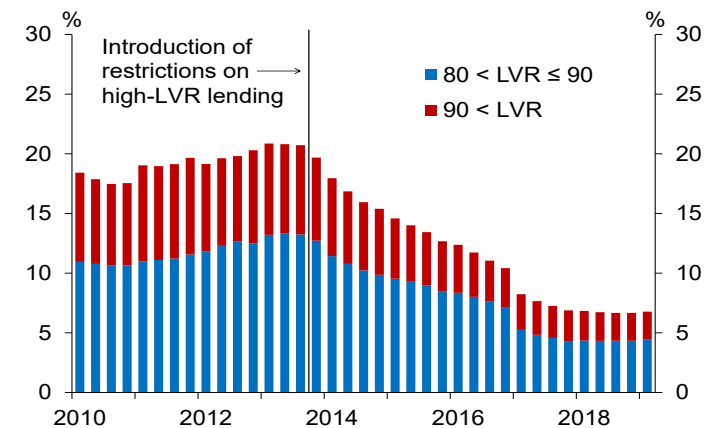
Financial system resilience has improved in the past decade...

In the past decade, the Reserve Bank has implemented policies to enhance financial system stability (see chapter 4). Policies, such as

capital and liquidity requirements, have raised baseline resilience to unexpected shocks that can hit the financial system at any time. The Reserve Bank has also improved its ability to manage distress in a financial institution by introducing an outsourcing policy and the Open Bank Resolution scheme.

The Reserve Bank has also introduced a macro-prudential policy framework to address specific risks that vary over time. This policy adds to resilience when risks are high, in order to mitigate the impact of a crisis. Loan-to-value ratio (LVR) restrictions have been in place since 2013 to address the risks associated with high household indebtedness and stretched house prices. LVR restrictions have made households and banks more resilient to financial shocks (figure 1.2). The Reserve Bank has recently published the results of a review of the effectiveness of LVR restrictions since 2013.

Figure 1.2
Proportion of mortgage lending at high LVRs
(five largest banks)



Source: RBNZ LVR New Commitments Survey.

...and the LVR restrictions have varied according to the prevailing mortgage risks.

The LVR restrictions have been eased over the past two years, as growth in household debt and house prices have slowed, and mortgage lending standards have improved. But the financial system remains exposed to highly indebted households. The impact of the last easing of the restrictions is still being assessed, and it is prudent to retain the current LVR restrictions for now.

If household lending risks continue to fall gradually, LVR restrictions will continue to be steadily eased. That will require household lending and house price growth to remain at sustainable levels, and banks to maintain prudent lending standards. We expect to review LVR restrictions every six months, unless conditions change suddenly.

Despite the easing in recent years, the current settings of the policy are continuing to improve the resilience of households and banks. This will help limit the likelihood and severity of a severe downturn in the housing market.

The baseline resilience of the financial system is under review...

The Reserve Bank is also reviewing its baseline policies to ensure that they are up to date and the financial system can withstand severe shocks. The baseline level of financial system resilience must be appropriate for New Zealand and not unduly inhibit the functioning and efficiency of the financial system.

In December 2018, the Reserve Bank released a consultation paper that proposed to raise bank capital requirements so that banks have sufficient

capital to withstand a 1-in-200 year event. The proposals reflect the critical role of banks in New Zealand's financial system, particularly the largest banks whose failure would severely affect all New Zealanders. The Reserve Bank has actively sought feedback on the proposals and is open to changes to the proposals. Submissions on the proposed changes are currently being reviewed and an independent review of the modelling methodology by international experts has been commissioned by the Reserve Bank. A response to submissions and decisions on the key aspects of the capital review is expected to be published by the end of November.

The non-bank deposit taker sector is a small but important part of the financial system. Typically small, these institutions may be more fragile in the face of industry and technological changes, and regulatory oversight is more limited. The Reserve Bank Act review is considering how best to strengthen oversight of non-bank deposit taking firms.

The Reserve Bank will also review the framework for regulating and supervising insurers. Following the failure of CBL Insurance Limited, the Reserve Bank commissioned an independent report on the licensing and supervision of CBL. The Reserve Bank intends to release the findings of the report as soon as it is able, and is consulting parties named in the report and considering their feedback. The findings of the report will feed into a review of the Reserve Bank's regulation and supervision of insurers. This will include a consideration of whether insurers should be required to maintain solvency buffers above the minimum solvency capital requirements. Currently, some insurers should increase their solvency buffers to improve their resilience to financial shocks.

...and financial institutions must help to improve their resilience.

It is important that the financial system itself acts to improve its resilience. This includes having a long-term customer focus to maintain public confidence and support efficiency. As part of this, banks and insurers must respond to the challenges identified in the recent reviews of conduct and culture. The Reserve Bank and the Financial Markets Authority are working with banks and life insurers to ensure they have adequate plans to address the specific issues identified.

The financial system must also adapt to longer-term risks and the changing competitive and regulatory environment. For example, financial institutions should identify, disclose and respond to their exposures to climate change risks, including the impacts of environmental policies on asset values in industries that emit high levels of greenhouse gases. As the financial system changes, there may be impacts on the provision of financial services and the transfer of risks across the system.

There are signs that the insurance sector's developing approach to managing its exposure to natural disaster events in New Zealand is increasingly affecting the availability and affordability of insurance. So far, the most noticeable impact has been a substantial increase in the price of home and contents earthquake insurance for properties that are perceived to be high risk. We are working with industry to understand the impacts this will have on insurance provision more broadly, but for now, insurance appears to be available for all but the riskiest properties.

As climate change risks become more acute, insurance for properties susceptible to rising sea levels and coastal inundation is likely to become more expensive and more difficult to obtain. This is likely to affect the value of these properties and shift costs and risks from

insurers to households and their mortgage providers. These risks must be appropriately identified and priced, so as to best ensure a stable transition over coming years.

The Reserve Bank will respond when needed.

The Reserve Bank continually monitors the resilience and efficiency of the financial system. And it will respond when necessary, as the financial system evolves. As part of this work, the Reserve Bank has a number of initiatives underway to improve the long-term societal outcomes delivered by the financial system (chapter 5). These include actively engaging with international groups and the New Zealand financial industry to improve awareness and address financial stability risks associated with climate change. And the Reserve Bank is working to improve its understanding of financial inclusion in New Zealand, to ensure the financial system is serving all New Zealanders.

Adrian Orr



Governor

Chapter 2

Domestic vulnerabilities



New Zealand's financial system has two main domestic vulnerabilities: household sector indebtedness and agriculture sector indebtedness. These vulnerabilities remain largely unchanged in the past six months.

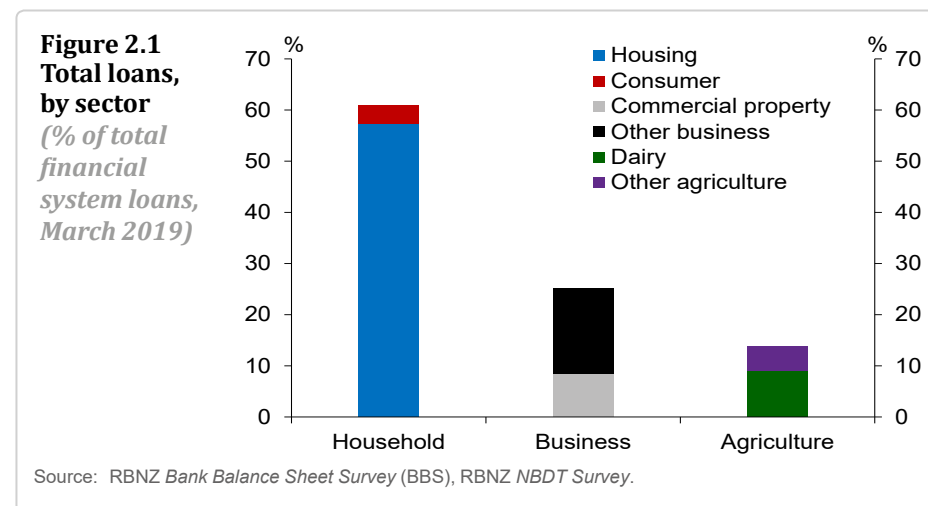
New Zealand's economy is growing but faces emerging headwinds.

The domestic economy is important for New Zealand's financial system because it affects loan losses, asset values and profitability. The pace of annual economic growth has moderated over the past year, from 3.1 percent at the start of 2018 to 2.3 percent at end 2018.

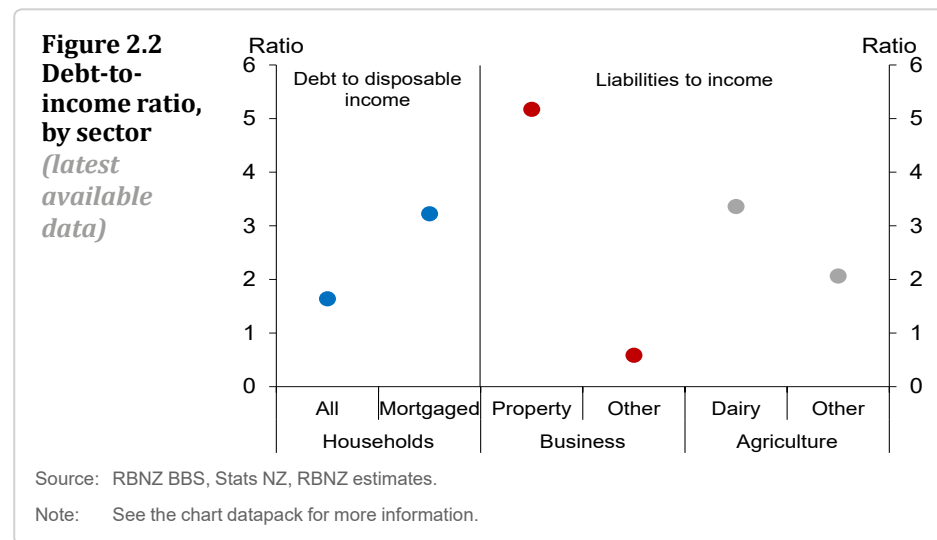
Slower growth and employment momentum is expected over the first half of 2019, due to emerging domestic and international headwinds. Domestic headwinds include slowing net migration, low house price inflation and low business confidence. International headwinds include falling export demand growth, as global economic growth remains below levels seen in recent years. The Reserve Bank reduced the Official Cash Rate in May in response to New Zealand's slower growth momentum. Extra monetary policy stimulus and elevated terms of trade are expected to help support a recovery in growth and employment from late 2019.

The financial system is heavily exposed to some sectors.

Problems in the domestic economy can weaken the financial system, particularly if the problems cause large loan losses. The potential for such losses depends on the amount of lending to each sector and the resilience of the sectors to financial shocks. Around 60 percent of financial system lending is to households, mostly housing loans (figure 2.1). Loans to the business and dairy sectors are also material.



Financial resilience varies across sectors. The level of debt relative to income (the ‘debt-to-income (DTI) ratio’) is a key indicator of a sector’s resilience, as relatively high interest costs and low borrowing capacities reduce the ability of heavily indebted borrowers to cut costs or borrow more to absorb shocks. On this measure the commercial property, household and dairy sectors appear most vulnerable (figure 2.2).



The distribution of debt and wealth in a sector is also an indicator of resilience. It tells us about the proportion of borrowers within a sector that are particularly risky, because they are either heavily indebted or have relatively few assets to sell to repay debt.

The proportion of risky borrowers in the household and dairy sectors appears relatively high. Around two-thirds of households have no mortgage debt, but nearly 40 percent of new mortgage loans are to borrowers with DTI ratios above five. In the dairy sector, 35 percent of debt is to highly indebted farms, defined as farms with more than \$35 of

debt per kilogram of milk solids produced annually. However, less than 5 percent of loans to the commercial property sector are to particularly risky borrowers,¹ suggesting debt is fairly evenly distributed across the sector.

Risks in the household and agriculture sectors are the main domestic vulnerabilities.

The following sections outline the Reserve Bank’s current assessment of the financial system’s main domestic vulnerabilities of household and dairy sector indebtedness. The Reserve Bank also monitors the commercial property sector, given the overall debt levels in the sector, but there appear to be fewer high risk borrowers in this sector.

¹ We define risky borrowers as those with loan-to-value ratios above 60 percent and interest coverage ratios less than 1.5.

Household sector indebtedness

Household sector stress can weaken the financial system.

The financial resilience of households is important for the financial system as loans to households account for around 60 percent of domestic private sector lending. Lenders could suffer large losses if many households became unable to service their loans due to a fall in incomes or increased mortgage rates. Mortgages make up the majority of household borrowing. Mortgages are typically a safe form of lending because they are secured against borrowers' houses. However, mortgage lenders can face losses if households default and house prices decline.

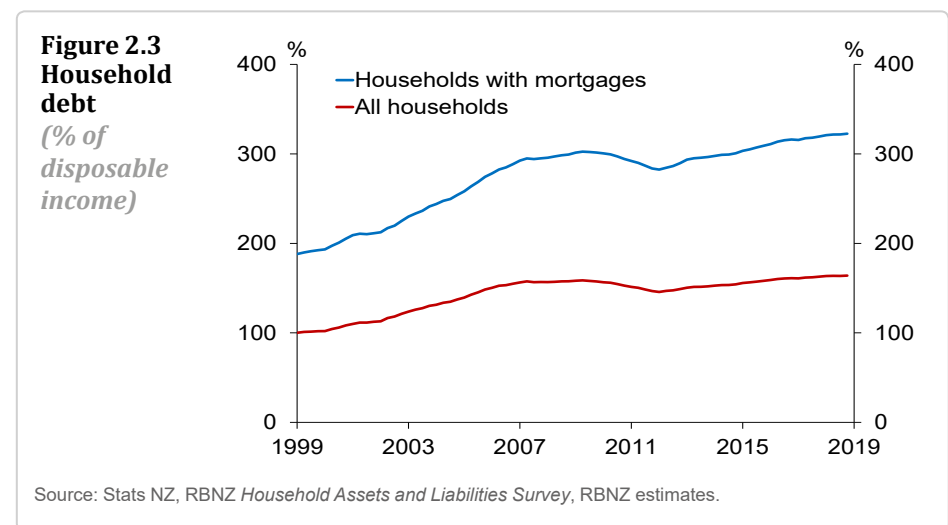
In recent years, the Reserve Bank has expressed concerns about risks relating to the level and growth of household debt, especially mortgages. Mortgage borrower resilience has to date been underpinned by low mortgage rates and rapidly rising house prices, but borrowers have become increasingly vulnerable to an unexpected rise in mortgage rates and a sharp downturn in house prices.

Banks are more cautious when lending to risky households...

In the run up to 2013, weak lending standards meant that many new mortgage loans had some high risk characteristics. In recent years, banks have limited their exposure to financially vulnerable households. Banks are more stringent when testing and verifying mortgage applicants' ability to service their debt. Lending standards also improved after the Reserve Bank introduced restrictions on the flow of high loan-to-

value ratio (LVR) mortgages to new borrowers in 2013. And stricter rules on mortgage lending in Australia have indirectly contributed to Australian-owned banks tightening their lending standards in New Zealand.

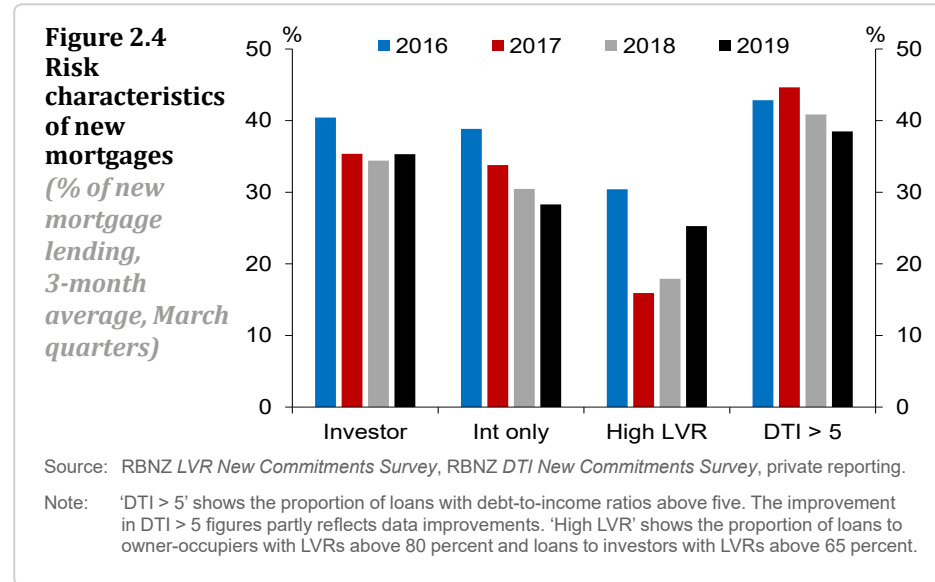
The financial strength of the overall household sector has been relatively steady over the past year. Growth in household debt has declined to around 6 percent, compared to 9 percent in 2016. But debt is still increasing slightly faster than income. The household DTI ratio increased marginally to a record high of 164 percent at the end of 2018 (figure 2.3).



...meaning fewer new mortgage borrowers are high risk.

Tighter lending standards have caused a decline in the proportion of new mortgage lending going to relatively risky borrowers. The proportion of new mortgage lending to households with DTI ratios above five is large but has declined in the past two years (figure 2.4). Fewer new mortgages are now provided on interest-only terms and the share of new mortgages going to investors has been fairly flat for the past two years.

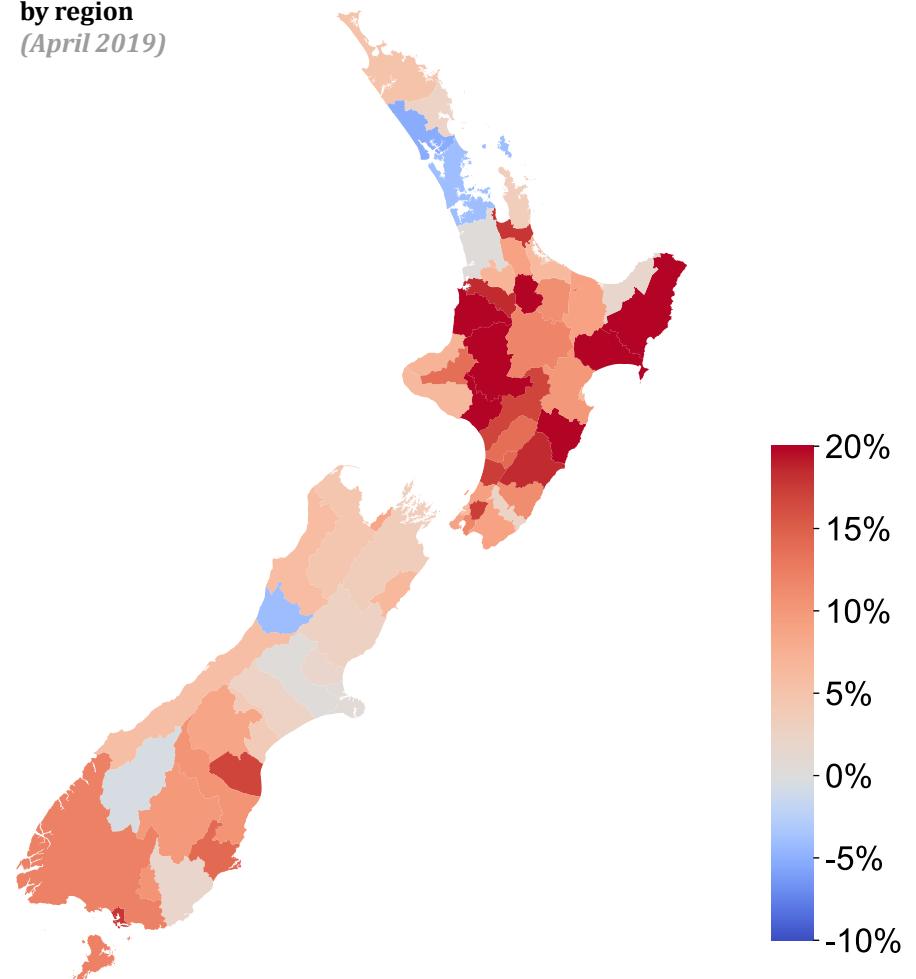
More recently, the share of new mortgages with high LVRs has increased following the recent loosening of the Reserve Bank's LVR restrictions. But the increase in high-LVR lending has been gradual and within the Reserve Bank's expectations.



House prices have fallen slightly in Auckland...

The reduction in the growth of household debt has coincided with slower national house price growth. House prices grew around 2 percent in the year to April, well below the recent high of 18 percent in 2015. The softening in the housing market has been led by Auckland, where house prices have fallen over 4 percent in the past year (figure 2.5) and house sales have remained low. National house price growth is expected to remain subdued in coming years, as it is expected that population growth will slow, the supply of new houses will gradually rise, and bank mortgage lending standards will remain relatively tight.

Figure 2.5
Annual house price growth by region
(April 2019)



...but most households are resilient to moderate house price declines.

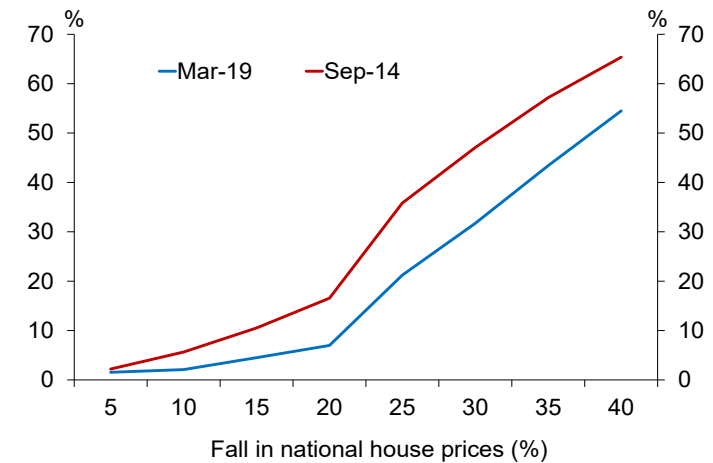
Falling house prices reduce household sector wealth and can cause some households to enter 'negative equity', where the outstanding balance on the mortgage exceeds the value of the house. Negative equity creates vulnerabilities for borrowers and lenders. It means that a borrower cannot sell their house to repay a mortgage that they cannot service. If the borrower defaults, their mortgage provider is likely to incur losses. Furthermore, borrowers in negative equity are more likely to default on their mortgages if they experience unexpected falls in income.

Borrowers with high-LVR mortgages are relatively susceptible to negative equity, as their debt is high relative to their house values. The Reserve Bank's LVR restrictions have reduced the proportion of households that are at risk of negative equity (figure 2.6). It is estimated that less than 1 percent of mortgage debt in Auckland is currently in negative equity, following the recent fall in house prices. However, a severe nationwide house price decline of 40 percent would mean that more than half of mortgage debts would be to households at risk of negative equity. In this event, banks must have sufficient buffers of capital to absorb potential losses.

Housing market risks could re-emerge quickly.

Some regions have recently had high house price growth. This is not an immediate financial stability concern as those regions have smaller and less stretched housing markets than Auckland. But if strong price growth continued, the financial system would become more exposed to those regions. The Global Financial Crisis (GFC) showed that house prices can fall dramatically in small regions.

Figure 2.6
Mortgage debt at risk of negative equity
(% of mortgage debt to households at risk of negative equity)



Source: RBNZ LVR New Commitments Survey, RBNZ estimates.

Note: This data is indicative and uncertain. Due to lack of data, the actual LVR distribution of the current stock of mortgages has been estimated using the value of houses at the time of their last credit event, e.g. when a mortgage was last topped up, rather than the current house value.

At a national level, the growth of household debt and house prices has slowed, but household debt has still grown faster than income in the past year. Housing market pressures could re-emerge if there is a strong response to the recent decline in mortgage rates, or reduced uncertainty about the future tax treatment of property investments.

Given this environment, the financial system's vulnerability to risks in the household sector remains elevated, and must continue to be closely monitored and managed.

Agriculture sector indebtedness

The financial system is vulnerable to agriculture downturns.

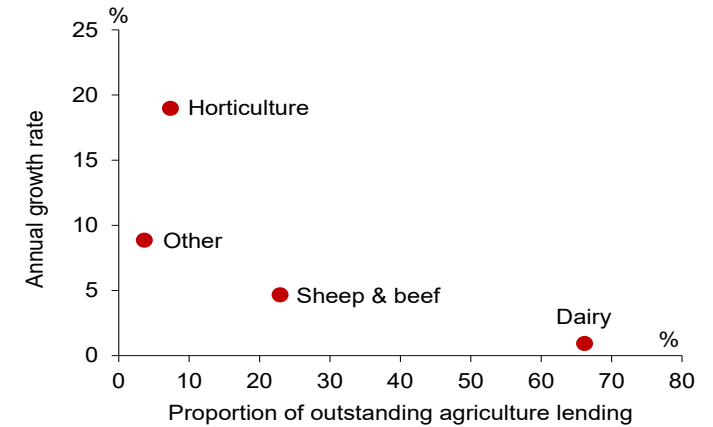
The agriculture sector is important for the financial system as it accounts for 14 percent of total bank lending. The financial system is particularly exposed to the dairy sector, after lending to the sector grew sharply in the run-up to the GFC and in 2015.

Recently, banks have increasingly diversified their agriculture lending (figure 2.7). Lending to the horticulture sector grew 19 percent in the year to March, while dairy lending growth was below 1 percent. Diversification reduces risks to banks by lowering their exposure to downturns in individual sectors. But rapid lending growth to a sector could be a sign of overly fast expansion and should be monitored by banks.

The dairy sector is recovering from previous downturns...

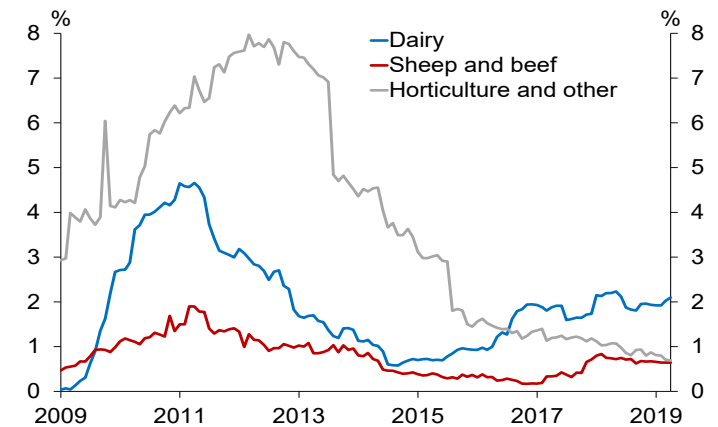
The dairy sector is continuing to recover from two major dairy price downturns in the past decade. The slow rate of recovery means some farms are financially vulnerable, resulting in the rate of non-performing loans (NPLs) in the sector rising slightly to 2 percent. However, NPLs remain well below the recent peak in 2011 (figure 2.8).

Figure 2.7
Stock and growth of agriculture debt, by sector
(March 2019)



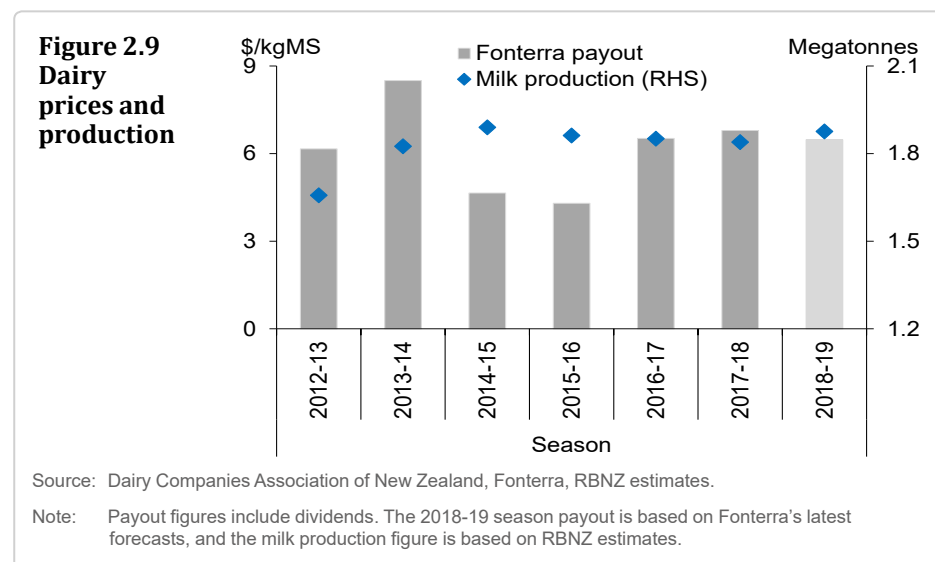
Source: RBNZ BBS.

Figure 2.8
Non-performing loans, by sector
(% of total loans by sector)



Source: RBNZ BBS.

Most dairy farms have been profitable for the past three seasons as dairy prices and production have been good (figure 2.9). But some farms struggle to make profits at current prices, particularly those with large debts. Around 35 percent of dairy farm debt is to farms that have more than \$35 of debt per kilogram of milk solids (kgMS) produced annually. On average, these highly indebted farms require a price of \$6.20 per kgMS just to break even. Fonterra currently forecasts a price range of \$6.30 to \$6.40 for this season.



...but banks have continued to support indebted farms.

Strong prices and production have allowed many farms to make progress in repaying debt, and the proportion of dairy loans on principal and interest terms has continued to increase. But the most indebted farms have struggled to repay debt. This partly reflects their need to catch up on maintenance and investment that was deferred in the last downturn.

Looking forward, farms may need to invest more, and may face higher costs, as they respond to biosecurity threats, such as the *Mycoplasma bovis* outbreak. Tighter environmental regulations may also impact the sector's costs. In May, the Government announced greenhouse gas reduction targets including the reduction of biogenic methane emissions within the range of 24-47 percent below 2017 levels by 2050, including to 10 percent below 2017 levels by 2030.

Banks have so far taken a long-term view in supporting stressed dairy farms and working with them to strengthen their financial positions. But given its high debt levels, the dairy sector is susceptible to higher interest costs or working expenses, and to changes in banks' business practices. Vulnerable farms must reduce their debt to improve their resilience to future downturns. However, options for addressing problems at financially stressed farms appear constrained at the moment, as demand for dairy farm land is low.

Chapter 3

International vulnerabilities



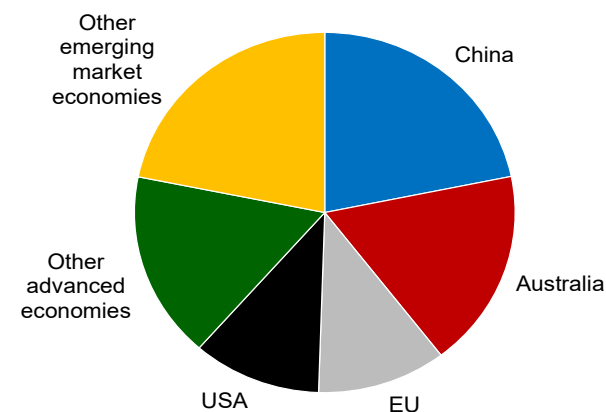
As a small open economy, New Zealand is particularly vulnerable to the impact of unexpected global economic events. New Zealand relies on export income and international funding markets to service its external debt of around 95 percent of GDP. New Zealand insurers also rely on global reinsurance markets to help insure risks. The Reserve Bank monitors the key vulnerabilities in the global economy and financial markets, and assesses how they could spill over to New Zealand.

Over the past six months, conditions in the global economy and financial markets have weakened. Global economic growth has slowed to around its 10-year average, against a backdrop of continued uncertainty about the outlook for world trade. The impact of a sustained global slowdown would likely be amplified by high debt levels and asset prices in many economies. Policymakers' ability to respond to a global slowdown may be hampered by low interest rates and high government debt levels in some advanced economies.

New Zealand is exposed to global economic developments through trade links and confidence channels...

Just over a quarter of New Zealand's output is exported. This means international events can affect demand for New Zealand's goods and services exports, which can impact the quantity sold and the price. Four trading partners – Australia, China, the European Union and United States – account for over 60 percent of New Zealand's exports (figure 3.1).

Figure 3.1
New Zealand's
export
trading
partners
(% of total
exports, end-
December
2018)

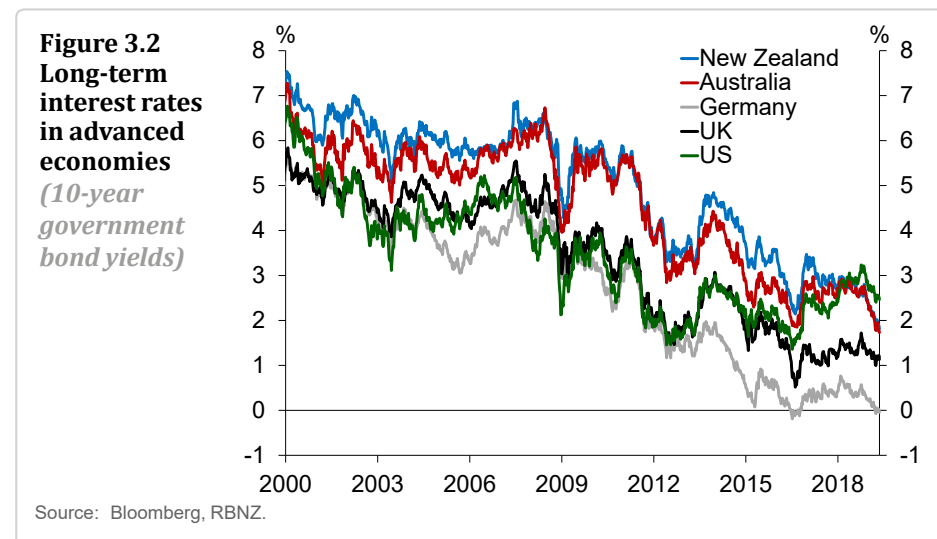


Source: Stats NZ.

International shocks can affect demand for New Zealand exports, which can damage domestic confidence. For example, the prospect of changes to international tariffs can make businesses and households more uncertain about their future incomes or employment, causing them to reduce spending and increase their precautionary savings.

...and through reliance on foreign funding.

International events can also affect New Zealand through interest rates and exchange rates. Movements in New Zealand interest rates are highly correlated with movements in other countries. The correlation is particularly high for long-term interest rates (figure 3.2), whereas short-term rates are more influenced by expectations for national monetary policy settings. Developments in international financial markets can also impact bank funding costs and lending rate spreads.



Increased cross-border financial flows in recent decades have increased links between New Zealand’s financial system and those of the rest of the world. Currently, around a third of New Zealand banks’ debt and equity funding is issued abroad. This diversifies banks’ funding sources. However, the global financial crisis (GFC) illustrated that offshore funding markets can be susceptible to unexpected increases in funding costs or reduced access to funding. Banks have reduced their reliance on offshore funding since the GFC.

Banks’ offshore funding is typically issued in foreign currency. The banking system currently has around \$100 billion of foreign-denominated debt liabilities, primarily in US dollars and euros. Banks use derivatives to hedge their foreign exchange (FX) risks. Around 95 percent of their offshore FX borrowing is hedged, with most of the remainder ‘naturally’ hedged with foreign currency assets. FX risk is largely eliminated by these hedges, but risks can emerge in some circumstances (see box A).

The insurance sector is exposed to global reinsurance markets...

The widespread availability of affordable insurance in New Zealand is heavily dependent on the ability of domestic insurers to transfer risk to global reinsurers. If global reinsurance markets become stressed or if the global appetite for New Zealand risk declines, the cost and availability of insurance in New Zealand could change dramatically. This would affect households and businesses, and the institutions that lend to them.

...as demonstrated by the response to the Canterbury earthquakes.

The costs of obtaining reinsurance for New Zealand exposures were relatively low prior to the Canterbury earthquakes, as global reinsurers had underestimated the costs of a major incident in New Zealand. After the Canterbury earthquakes, reinsurers reassessed New Zealand risks, supported by enhancements to their catastrophe risk models. As a result, the costs of reinsuring New Zealand exposures increased and have remained elevated.

New Zealand insurers have responded in a variety of ways, including by charging higher premiums to customers, introducing caps on insurance cover, and retaining more insurance risk on their own balance sheets. Insurers are also increasingly reflecting the risk profiles of properties in their insurance premiums (see chapter 4).

Box A

Hedging foreign currency risks

Banks hedge their foreign currency exposures using a range of derivative contracts. When a bank uses one of these contracts to hedge foreign currency borrowing, it agrees with its derivative counterparty to exchange New Zealand dollars for foreign currency at a future date and at a predetermined exchange rate. A bank can match the amount of foreign currency and the date of the future exchange in a contract to the principal amount and maturity of the bank's foreign currency borrowing. This matching transaction effectively transforms a bank's foreign currency borrowing into New Zealand dollar borrowing.

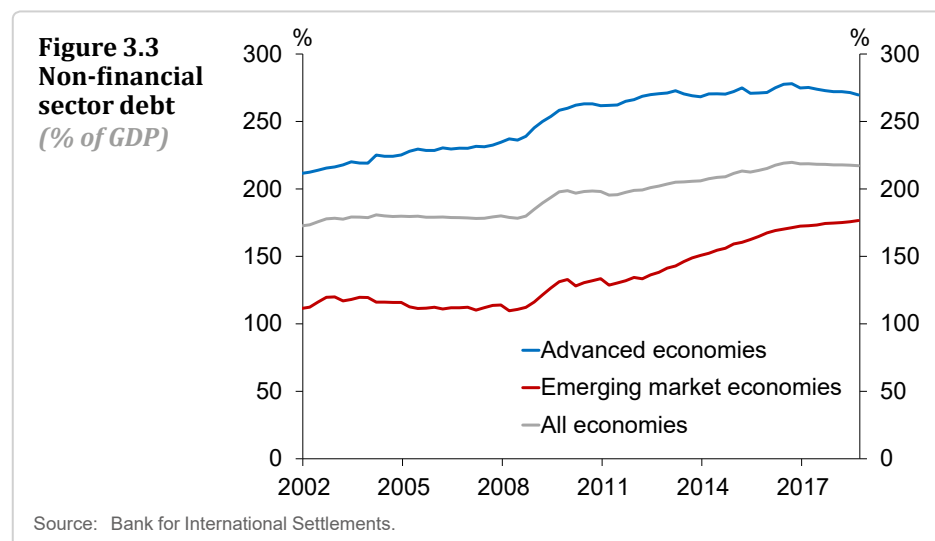
Although hedging through derivatives mostly eliminates foreign currency risk, it can create some additional risks that banks must monitor and manage:

- A bank's derivative counterparty could fail and not make good on its promise, causing a loss to the bank. Counterparties mitigate this risk by requiring each other to provide collateral when a derivative has positive value for them.
- Banks could face demands for large amounts of collateral, if the New Zealand dollar appreciates significantly.
- When they need to roll over funding, banks may be unable to find a hedging counterparty or the cost of hedging could increase, if conditions in financial markets deteriorate.
- Banks could face losses if their hedges are imperfect or if a derivative does not function as intended.

International risks

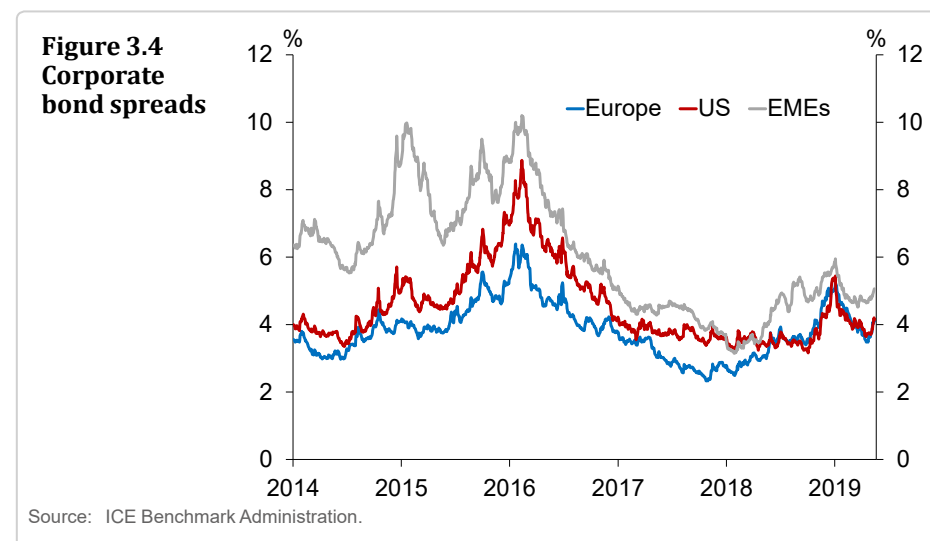
Global debt levels and asset prices are high.

Long-term interest rates are near historical lows in New Zealand and other advanced economies (figure 3.2). Persistently low interest rates have allowed a significant build-up in global debt levels and asset values (figure 3.3). This build-up has increased the vulnerability of borrowers to funding and equity market shocks, such as a sudden fall in investor appetite or global economic growth. Given the links between financial markets in New Zealand and the rest of the world, large shocks could substantially raise funding costs in New Zealand.



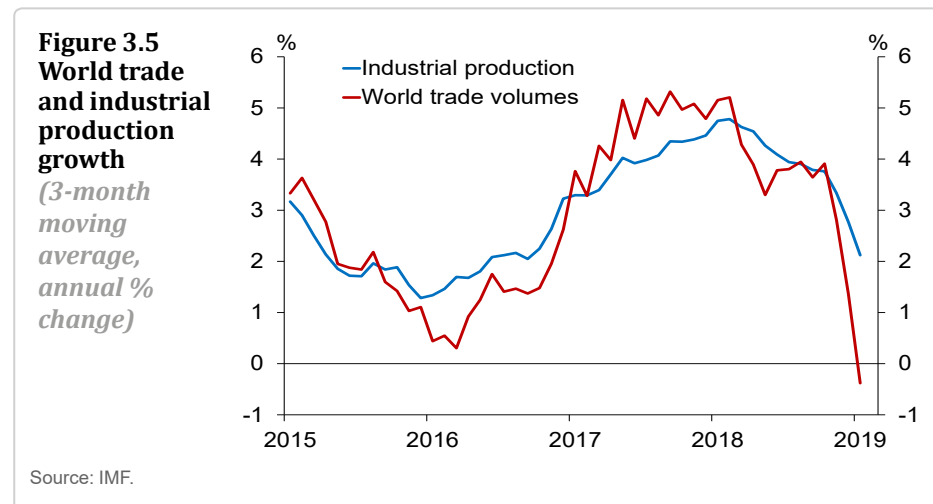
The impact of global events on New Zealand was partly demonstrated when global financial conditions tightened and asset prices fell in late 2018. Higher funding costs caused New Zealand banks to limit the issuance of offshore funding until costs declined. That strategy was enabled by the improvement in banks' funding profiles since the GFC, but it would not have been effective if funding costs had been elevated for longer.

Global financial conditions have eased since early 2019, on the expectation that interest rates, particularly in the US, will remain lower for longer. The spreads on corporate bonds have fallen back towards recent lows (figure 3.4), which has reduced borrowing costs in New Zealand and abroad.



Global growth has slowed...

Easing financial conditions followed a marked deceleration in global economic growth over the second half of 2018. Growth is also now expected to remain low over 2019. In April, the IMF cut its forecast for global growth in 2019 to 3.3 percent, from 3.7 percent in its October 2018 forecast. Global employment rates and consumer confidence have so far remained fairly robust. But other measures of global economic activity have softened, including business confidence, industrial production and trade volumes, particularly in Asia (figure 3.5).

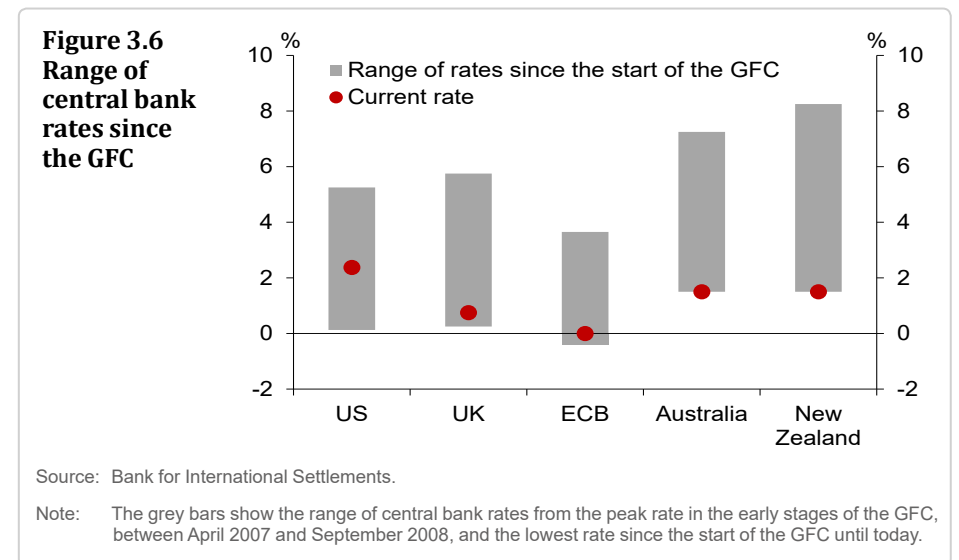


Increased uncertainty about trade policy could further weaken global growth. Recently, trade negotiations between the US and China have soured, with both announcing new import tariffs in May. Brexit negotiations also remain highly uncertain, despite an agreement to extend the UK's proposed exit date from the EU until the end of October. A sudden increase in trade barriers could materially lower economic activity by disrupting global supply chains across the world, affecting countries not directly party to the trade negotiations.

...and capacity to support growth may be constrained.

Policymakers in advanced economies have less headroom for fiscal and monetary policy to respond to a significant economic downturn than they had before the GFC. Government debt levels in many advanced economies are well above pre-GFC levels. New Zealand's fiscal position is strong compared to those of many of these countries.

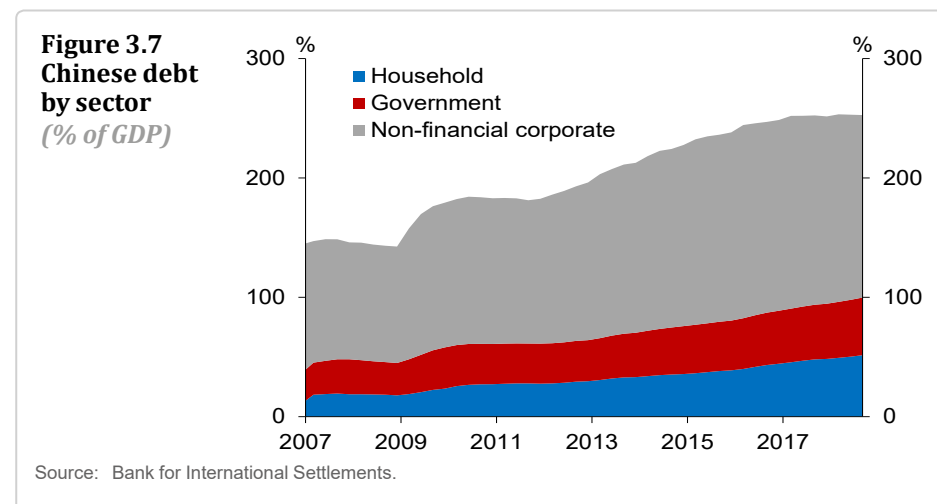
Many central banks have policy rates at, or close to, historical lows. The scope to use conventional monetary policy in a downturn is limited because policy rates, including in New Zealand, cannot be cut by the same amount as in past crises before hitting negative rates (figure 3.6). Unconventional monetary policy could be used but scope for these policies to stimulate global growth may be constrained. Current interest rates are relatively close to the 'effective lower bound' in some countries.



Recovery from a global economic downturn would also be affected by the resilience of the global financial system, including its ability to continue providing critical services. Since the GFC, regulators have acted to improve the resilience of the global financial system. Bank capital levels have increased, bank funding profiles have become more resilient and resolution regimes for failing financial institutions have been developed in most advanced economies. But in some areas, reforms are not complete or are untested. Furthermore, many financial institutions and financial systems are larger and more complex than they were prior to the GFC.

New Zealand is vulnerable to risks in China...

China is a major driver of global economic growth and is New Zealand's biggest trading partner. Negative developments in China would damage global growth and spill over to New Zealand, including through Australia. Escalation in US-China trade tensions comes at a time when Chinese authorities are acting to balance economic growth and the financial stability risks associated with the rapid growth in debt (figure 3.7).



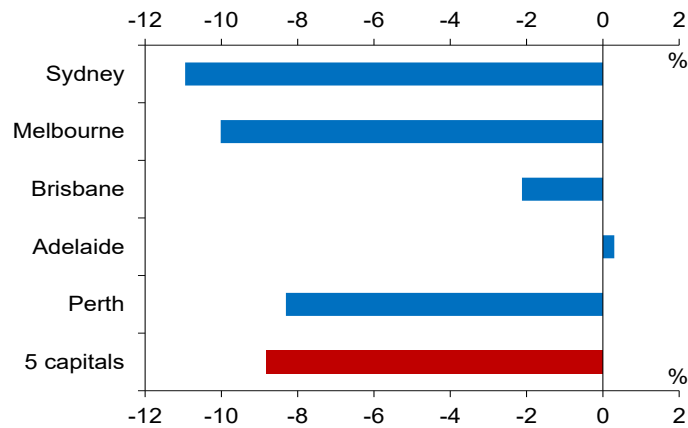
Recently, Chinese authorities have responded to weaker-than-expected economic growth with fiscal and monetary stimulus, including increased infrastructure spending and reductions in the reserve ratio requirement for banks. These measures appear to have generated higher-than-expected growth in GDP and credit, and have caused a significant rebound in equity prices. But significant risks to the Chinese economy and financial system remain.

...and risks in the Australian housing market.

The performance of the Australian economy and financial system is important for New Zealand. Australia is a major trading partner and New Zealand's largest banks and insurers are Australian owned.

The Australian economy has had steady growth and low unemployment for a number of years. That has been accompanied by significant increases in house prices and household indebtedness, which leaves households vulnerable to financial shocks. In the past 18 months, house prices have fallen in major centres (figure 3.8). House prices in some areas of Sydney and Melbourne have fallen by upwards of 20 percent from their peak, in mid to late 2017. The Reserve Bank of Australia sees scope for further falls in the near term, as new housing supply is expected to run ahead of population growth in Sydney, and possibly Melbourne, for the next couple of years.

Figure 3.8
Australian residential property prices
(annual % change, April 2019)



Source: CoreLogic.

The recent price falls are not expected to materially weaken Australia's financial system as only a small share of households are currently in a position of negative equity (i.e. the value of their mortgages are greater than their house value). Economic growth and employment are still relatively robust, outside mining-exposed regions. However, continued price falls would weaken household balance sheets and increase the risks to bank mortgage lending, which could affect the funding costs of Australian-owned banks in New Zealand.

Housing market conditions in Australia are quite different from conditions in New Zealand, including Auckland. Sydney and Melbourne have had some significant increases in housing supply, particularly for apartments, in recent years. In contrast, housing supply in Auckland has been relatively muted. Furthermore, population growth in Auckland has remained strong in recent years.

Australia and New Zealand, however, have some common factors that could affect housing markets in both countries. New Zealand's largest banks are Australian owned, so credit conditions in Australia can affect New Zealand. There is evidence that down-side risks for house prices become more synchronised across advanced economies immediately before global recessions.¹

¹ See box 2.1 in the IMF's [April 2019 Global Financial Stability Report](#).

Chapter 4

Financial system assessment

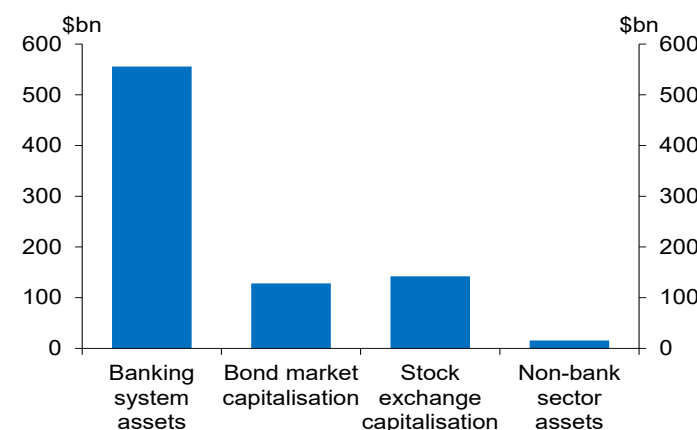


New Zealand's financial system underpins the country's economy. It facilitates borrowing and saving, allows people to diversify and transfer risks, and helps people exchange goods and services by providing convenient means of payment.

Banks dominate the domestic financial system (figure 4.1). Banking products are widely available across New Zealand, and almost all adult have bank accounts. However, the banking system itself is concentrated, and just four banks account for 86 percent of bank lending. The non-bank lending sector is small compared to the banking sector, and only competes with banks in some regions and products. New Zealand's capital markets are small relative to the banking sector and to capital markets in other advanced economies. This limits funding and investment opportunities in New Zealand.

New Zealand has a large general insurance sector and good levels of general insurance penetration by international standards. However, the insurance sector is concentrated on a few large insurers, particularly for some products such as health insurance. And there are emerging challenges to the affordability of some general insurance products (see the insurance section).

Figure 4.1
Size of New Zealand's financial sectors
(total assets, March 2019)



Source: RBNZ, NZX.

Note: Bond market capitalisation excludes private debt placements. Stock exchange capitalisation excludes unlisted share holdings.

The financial system should be customer focused and adaptable.

A healthy financial system is one that meets the needs of the public in a cost-efficient and durable manner. A weak financial system can harm public confidence and disrupt the provision of vital services, as demonstrated by the global financial crisis (GFC) and the spate of

finance company failures in New Zealand in the 2000s. Wide-ranging reforms to financial regulation were introduced following these events. The Reserve Bank continues to review and enhance its regulatory and supervisory approach (see chapter 5).

The Reserve Bank is currently reviewing the bank capital framework, an important tool for supporting banking system resilience, to ensure it is up to date and reflects the risk appetite of New Zealand. The Reserve Bank has proactively sought feedback on the review and is currently reviewing submissions on a recent consultation paper (see the bank section).

The financial system itself must adapt as the risk landscape changes. Institutions must proactively consider their exposure to risks, including long horizon risks such as climate change risks (see box B). A healthy and durable financial system must also be customer focused and adapt as customer needs change. The challenges identified in recent reviews of the conduct and culture of banks and life insurers must be addressed in order to protect public confidence (see chapter 5). Financial institutions should carefully manage, and signal, changes that could affect the availability and cost of financial services for some communities, such as bank branch closures and more risk-sensitive pricing for insurance contracts.

Box B

Industry survey on the potential impacts of climate change

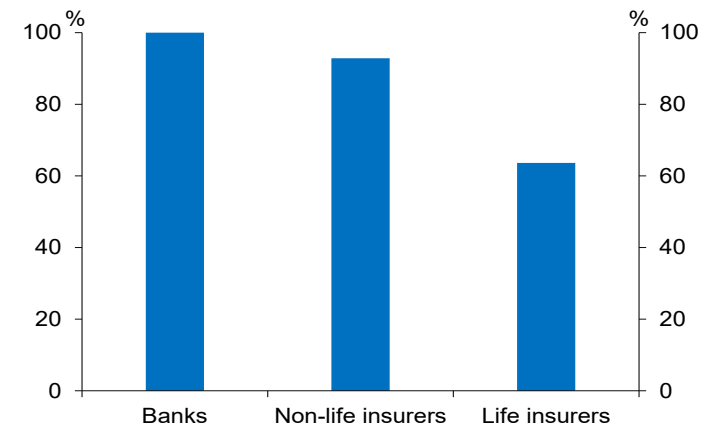
Climate change is widely expected to impact the financial system...

The previous *Financial Stability Report* outlined the potential impact of climate change on New Zealand's financial system. As part of its climate change strategy, the Reserve Bank is engaging with insurers and banks in New Zealand and with international agencies. In 2018, the Reserve Bank joined the Central Banks and Supervisors Network for Greening the Financial System and the Sustainable Insurance Forum.

The Reserve Bank recently surveyed a sample of New Zealand insurers and banks, as part of a global survey on the implementation of disclosure recommendations developed by the Task Force on Climate-related Financial Disclosures (TCFD). The survey highlighted broad consensus that climate change will impact the financial system (figure B1). All banks and 90 percent of non-life insurers thought climate change is a risk to their businesses. Around 60 percent of life insurers recognised climate change as a risk to their businesses, reflecting their less direct exposure to climate change risks.

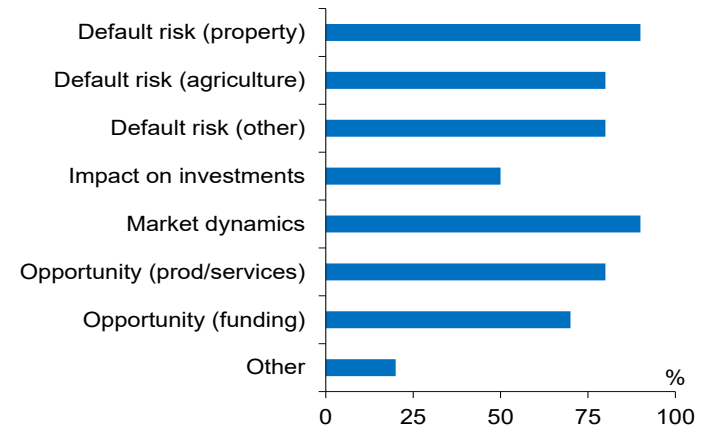
Respondents were asked to identify areas where they thought their businesses could be affected. There was a clear expectation that climate change will have a business-wide impact on the banking system, with the majority of responses identifying likely impacts on all their material business lines (figure B2).

Figure B1
Respondents who believe climate change will impact their businesses
(% of surveyed institutions)



Source: RBNZ.

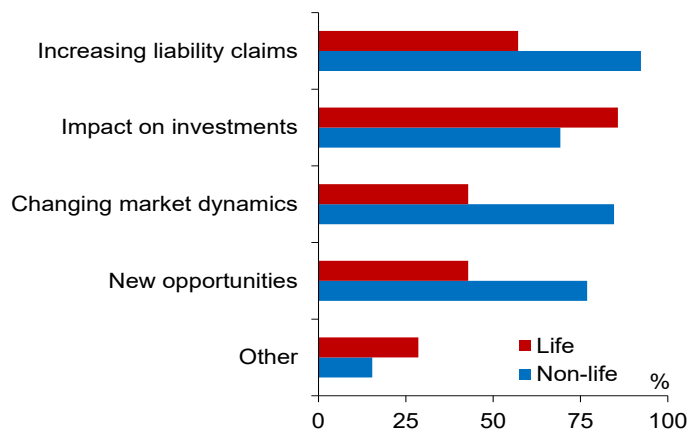
Figure B2
Expected impact of climate change on banks
(% of surveyed banks)



Source: RBNZ.

Non-life insurers identified a broad range of potential impacts, with particular emphasis on the potential for increasing liability claims (figure B3). Life insurers were less concerned around increasing claims, but many expected impacts on their investments.

Figure B3
Expected impact of climate change on insurers
 (% of surveyed insurers that recognised climate change as a risk)



Source: RBNZ.

Note: Insurers that provide life and non-life insurance products are included in the figures for both sectors.

...but climate risks must still be better integrated within business practices.

Given the widespread acknowledgement that the financial system is exposed to climate change risks, boards of financial institutions should work to understand the potential impacts on their businesses. The survey responses provided little evidence that concerns about climate change risks are influencing day-to-day business decisions. Management and boards must consider all material risks when setting the strategic directions of their businesses. The Reserve Bank will continue to engage with banks and insurers on this issue.

New Zealand currently enjoys good access to general insurance products, but that could change as banks and insurers progressively factor climate change risks into their business decisions (see the insurance section). The availability and pricing of financial products could alter significantly for some communities and individuals. As banks and insurers respond to climate change risks, some risks may ultimately end up with other parties, such as central and local government. It is important that these potential market dynamics are understood and managed appropriately.

Enhanced disclosure will facilitate better risk management.

The disclosure of institutions' exposure to climate change risks is important for there to be a coordinated response to the risks. 60 percent of surveyed banks and around a third of surveyed insurers already disclose some information on climate risk. A number of banks and insurers operating within New Zealand are part of wider groups that are actively supporting the implementation of international standards for disclosure of climate risks, developed by the TCFD. But not all disclosures are aligned with those international standards.

There are some barriers to the broader implementation of the TCFD disclosure standards in New Zealand, including the availability of data, capacity and resources. The Reserve Bank places significant emphasis on disclosure as part of its regulatory framework, and is committed to working with industry and wider stakeholders to develop an appropriate climate risk disclosure framework for New Zealand.

Banks

New Zealand's banking system is profitable and all banks have capital, liquidity and stable funding ratios that exceed current regulatory requirements (table 4.1). Banks face a complex array of risks that can be broadly grouped into credit, operational, and market and liquidity risks.

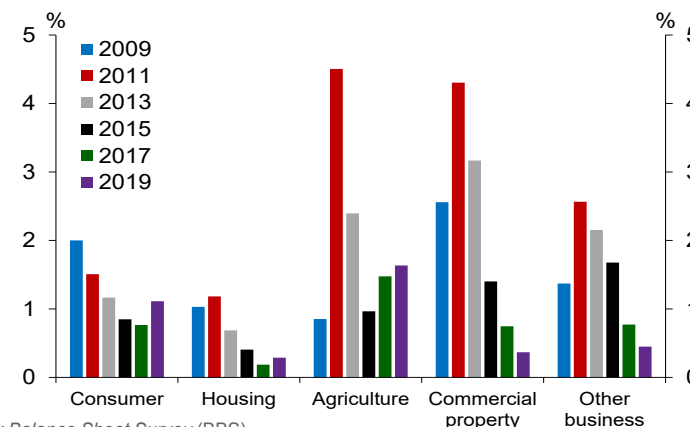
CREDIT RISK

Banks are vulnerable to economic downturns...

Credit risk is the risk that a borrower fails to meet its obligations, causing a loss to the bank. Banks are most exposed to credit risk during economic downturns, when unemployment tends to rise and business incomes and asset values tend to fall. Loans are currently performing well, relative to recent years (figure 4.2), reflecting the recent benign economic environment and sound lending standards.

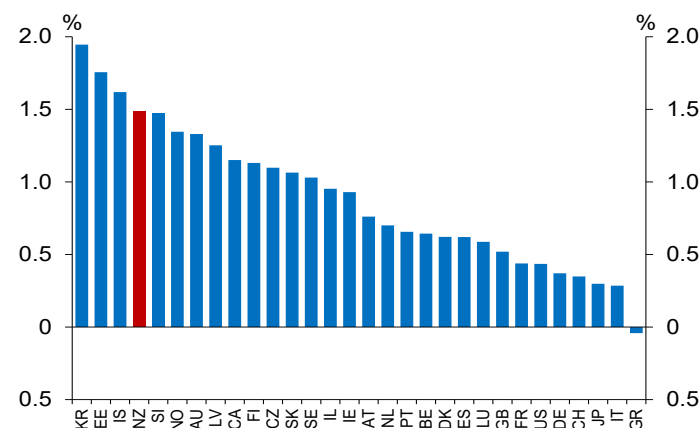
Bank profits can help absorb credit losses during times of stress. New Zealand's banking system has been highly profitable over the past decade compared with international peers (figure 4.3). But it is uncertain whether profits can be maintained when times are bad. If profits cannot be maintained, banks must rely on buffers of capital to absorb losses.

Figure 4.2
Non-performing loans by sector
(% of gross loans, March years)



Source: RBNZ Bank Balance Sheet Survey (BBS).

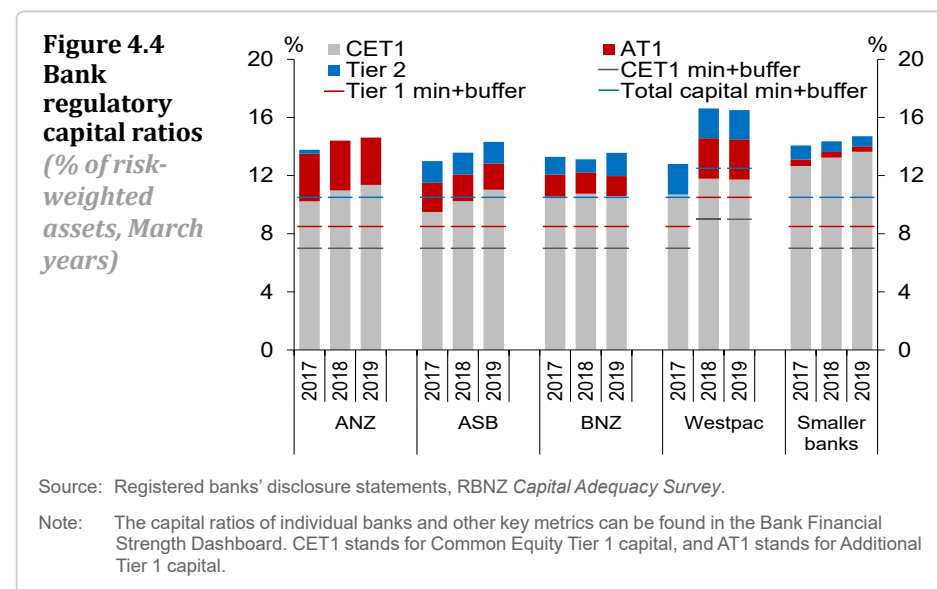
Figure 4.3
Bank profitability in advanced OECD countries
(pre-tax return on assets)



Source: IMF, RBNZ Income Statement Survey (ISS).

Note: Dates for each country vary. Most figures are for the year ended Q2 2018, but the figure for New Zealand is at Q1 2019.

The Reserve Bank requires banks to maintain minimum levels of capital, relative to their risk exposures (mainly comprising credit risk), to ensure bank owners have enough 'skin in the game' and absorb losses before other investors, such as depositors. Banks can boost their resilience by maintaining large buffers of capital over their minimum capital requirements. All banks currently exceed their minimum requirements (see figure 4.4).

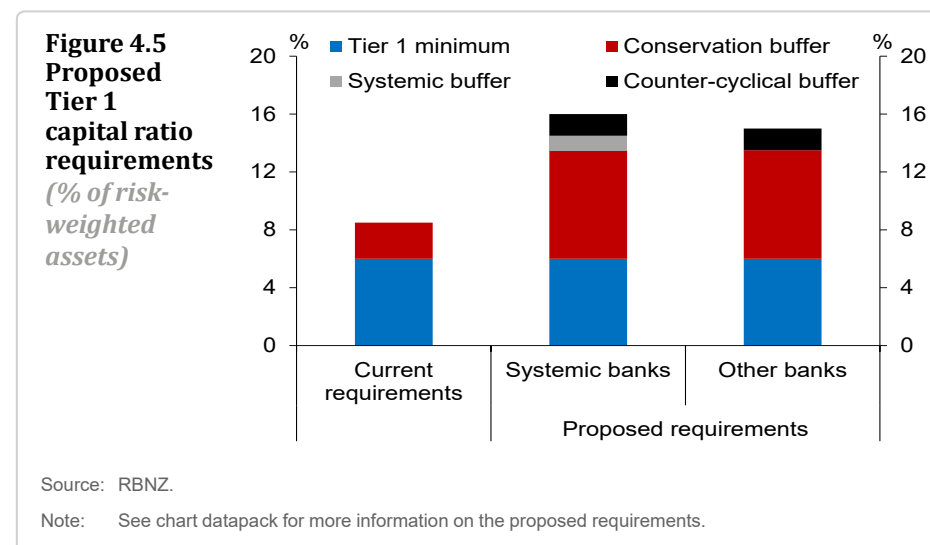


...so the Reserve Bank has proposed higher capital requirements to improve the banking system's resilience.

Since 2017 the Reserve Bank has been undertaking a review of its bank capital framework to ensure it is up to date and reflects the specific risk environment and risk appetite of New Zealand. Four consultation documents have been published on proposed changes to the current bank capital framework, including: the types of instrument that are

accepted as regulatory capital; the way banks measure and aggregate risks; and minimum capital ratios.

In December 2018 the Reserve Bank published proposals to increase the minimum level of regulatory capital, to ensure the banking system can better withstand financial and economic shocks. It proposed that the current Tier 1 capital requirement, of 8.5 percent of risk-weighted assets, be increased to 16 percent for 'systemically important' banks and 15 percent for all other banks (figure 4.5). It proposed that this should be achieved by increasing regulatory capital buffers over a five-year transition period.



The proposals would increase the conservativeness of New Zealand's capital requirements relative to other advanced economies, which has fallen in the past decade. The proposals reflect evidence that the costs of bank failures are higher than previously understood and the Reserve Bank's view on the appropriate risk appetite for banking crises. It was proposed that the capital framework should be set so that banks have

sufficient capital to withstand a 1-in-200 year event. The Reserve Bank's preliminary assessment was that while the proposals could lead to a slight increase in borrowing costs, this would be more than offset by the benefits of a safer banking system.

The Reserve Bank has proactively sought public and financial industry feedback on the capital proposals, and has commissioned external reviews on the approach to the capital review by independent experts. The consultation period ended on 17 May, and the Reserve Bank is currently reviewing the submissions. This includes reviewing the proposal that banks should be resilient to 1-in-200 year events. The Reserve Bank is open to changing the proposed capital framework. A response to the submissions and decisions on the key aspects of the capital review is expected to be published by the end of November 2019.

OPERATIONAL RISK

Operational risk is the risk of losses resulting from inadequate or failed internal processes, people and systems, or from external events. Operational risk has caused significant losses for banks in New Zealand and abroad (see box C).

Risks from IT disruptions, misconduct and cybercrime are elevated...

Operational risk can be hard to measure as severe loss events occur very infrequently. But some risks currently appear to be elevated:

- An IT system disruption can severely disrupt the provision of services and cause large losses for a bank. The most vulnerable banks have aging and complex IT systems, partly due to underinvestment in core IT infrastructure over the past decade.

- Misconduct in the sale of banking products can lead to legal costs, remediation costs and penalties. Australian banks have recently put aside significant funds to cover fines and remediation costs relating to misconduct.
- Cybercrime has increased and become more complex over the past decade. The theft of customer funds or sensitive data can lead to significant compensation and legal costs for a bank, as well as reputational damage.

...but are incorporated into banks' risk management.

New Zealand banks are focused on developing processes and controls to monitor and mitigate operational risks. Banks' internal risk management frameworks are the first line of defence against operational risks. The Reserve Bank assesses these processes as part of regular supervision, and requires banks to hold a minimum amount of capital against their operational risks.

Some banks are accredited to use their own models for calculating capital requirements for operational risk. It was recently discovered that New Zealand's largest bank, ANZ, has not been operating an approved model and has had its accreditation for modelling its own operational risk capital requirements revoked (see Appendix).

Box C

Examples of operational risk events

Internal fraud: Instances of internal fraud have caused large losses for banks such as Barings Bank (US\$1 billion in 1995), Société Générale (US\$7 billion in 2008) and JP Morgan (US\$6 billion in 2012).

External fraud: US\$81 million was stolen from the Central Bank of Bangladesh in 2016 after criminals hacked into its systems and attempted to steal nearly US\$1 billion from one of its accounts.

Clients, products and business practices: In 2009, four New Zealand banks faced back taxes totalling over \$2 billion following a court ruling on their tax arrangements. CBA has been fined AU\$700 million for serious breaches of anti-money laundering laws.

Damage to physical assets: The 11 September 2001 terrorist attack destroyed infrastructure around the World Trade Center and caused the temporary closure of US equity and bond markets.

Business disruption and system failures: In 2012 there were significant delays to retail payments in New Zealand due to communication problems. In 2018, 5.2 million payments failed during a Visa system outage across Europe.

Execution, delivery and process management: In April 2014, technical problems in a major New Zealand bank caused 1,280 trades to be generated from a single FX order of \$1 million. This resulted in an unintended position of over \$1 billion against the US dollar (equivalent to around 20 percent of the bank's total regulatory capital).

MARKET AND LIQUIDITY RISKS

Banks' funding arrangements create liquidity and market risks...

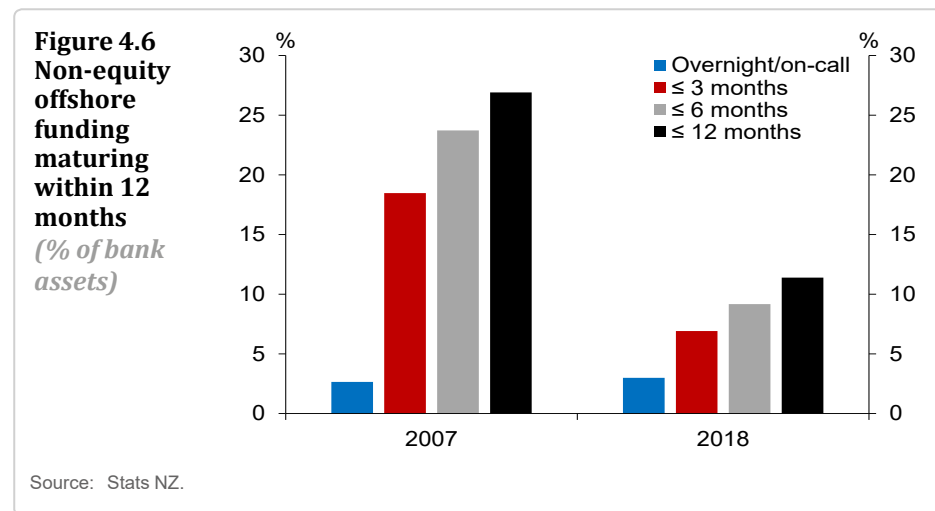
Market risk arises when a bank incurs losses due to financial market developments. Liquidity risk occurs when a bank does not have the resources to make payments or finds it difficult to secure funding.

New Zealand banks are mainly exposed to market and liquidity risks through their regular banking activities, as their financial market trading activities are modest, relative to those of large international banks. Banks rely on funding markets to fund their assets, so they are vulnerable to unexpected periods of stress in domestic and offshore funding markets. Risks to offshore funding market conditions are outlined in chapter 3.

...which banks guard against in various ways.

Banks guard against market and liquidity risks by diversifying their funding and by using relatively stable sources, such as long-term equity and debt funding and retail deposits. Greater diversity and the use of long-term funding reduce the potential outflow of funding during periods of stress.

Banks have significantly reduced their funding risks since the GFC, partly as a result of the Reserve Bank’s liquidity policy. In particular, banks rely far less on short-term offshore funding (figure 4.6).



stakeholders, to develop a new mortgage bond standard. This standard aims to provide issuers, such as banks, and investors with an additional funding and investment instrument, to support the development of capital markets. It will also reduce risks for the Reserve Bank when it acts as lender of last resort, by increasing the supply of high-quality and liquid assets. The Reserve Bank has consulted on a proposed mortgage bond standard and is currently reviewing submissions. The intention is to publish final policy decisions this year.

Projects will help reduce funding risk in New Zealand.

New Zealand banks use derivatives to manage foreign exchange risk when raising funds offshore in foreign currencies (see box A). This approach is currently threatened by new rules being introduced by G20 countries. These rules will require parties to these types of derivative contract, including large New Zealand banks, to exchange collateral to ensure that they are compensated if another party fails. Aspects of New Zealand law currently mean these firms cannot comply with these requirements, but proposed changes to the law to remove the impediments are currently before Parliament.

Liquidity risk is also managed by using diversified sources of funding. The Reserve Bank is currently working with banks, and other

Table 4.1
Key metrics for New Zealand's banking system (March 2019)

Metric	Value (%)		Regulatory minimum (%)	Comment
	Current	1 year ago		
Tier 1 capital ratio	13.6	13.4	8.5*	Banks' capital ratios, which measure their ability to absorb losses, remain above regulatory minimums. The Tier 1 capital ratio has increased slightly over the past year.
Liquidity mismatch ratio (1 month)	6.0	6.3	0	All banks are compliant with their minimum mismatch requirements and are therefore expected to be resilient to both one-week and one-month periods of liquidity stress.
Core funding ratio	87.8	88.4	75	All banks have buffers of stable funding over what is required by the core funding ratio requirements. This helps to protect them against a disruption in funding markets.
Return on assets (after tax)	1.1	1.1		Banks remain profitable relative to most OECD countries' banks. Strong profitability can support the resilience of New Zealand's banking system.
Net interest margin	2.1	2.2		Banks' gross profits from their borrowing and lending activities are high by international standards. These have fallen slightly over the past year.
Non-performing loan ratio	0.48	0.56		Banks' loan portfolios are generally performing well, reflecting the benign economic environment. The system's non-performing loan ratio remains low by historical standards.
Cost-to-income ratio	39.5	41.4		The banking system's costs are low relative to its income when compared to other countries. The cost-to-income ratio has fallen slightly in the past year.

* This includes the capital conservation buffer requirement of 2.5 percent of risk-weighted assets, which banks must maintain to avoid dividend restrictions.

Source: RBNZ *Capital Satellite Survey*, RBNZ *Liquidity Survey*, RBNZ ISS, RBNZ BBS.

Note: Mismatch ratio (1 month) is presented as a 3-month moving average to remove short-term volatility.

Non-bank deposit takers

The non-bank deposit taker (NBDT) sector includes building societies, credit unions, and finance companies. The sector is relatively small, accounting for just 0.6 percent of deposits in New Zealand.

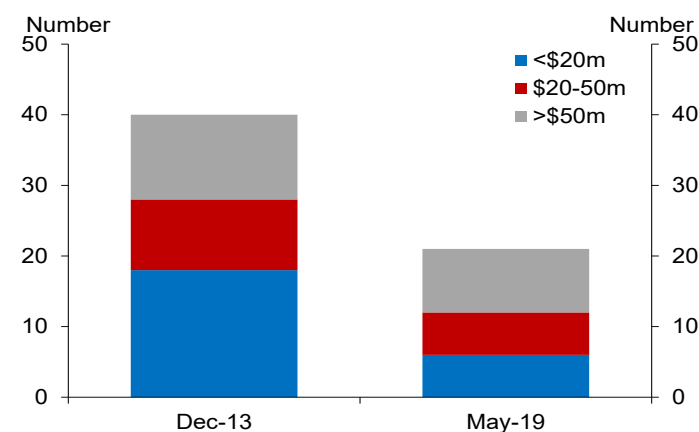
Since 2009, the Reserve Bank has imposed capital and other prudential requirements on NBDTs to support the resilience of the sector. All NBDTs are currently meeting their minimum regulatory capital requirements (table 4.2) but some exceed the requirements by small amounts, in dollar terms.

The NBDT sector is facing challenges...

The non-bank sector has shrunk markedly in size over the past 15 years, following the collapse of numerous finance companies and several large entities becoming banks. The number of NBDTs has declined over the past five years, from 40 to 21, mainly due to consolidation between credit unions (figure 4.7).

By its nature, the NBDT sector faces challenges. Most NBDTs are small – over half have less than \$50 million in assets – meaning they do not benefit from the same economies of scale as larger banks. The low profitability of some NBDTs reduces their ability to maintain capital buffers in the event of an unexpected loss. Smaller NBDTs are also more vulnerable to single loss events than large institutions, as their lending is more concentrated.

Figure 4.7
Number of
non-bank
deposit
takers, by
asset size



Source: RBNZ NBDT Survey, private reporting, RBNZ estimates.

Note: Excludes licensed NBDTs that are no longer operating.

...and further consolidation in the sector is likely.

Given these challenges, further consolidation in the sector is likely.¹ Some NBDTs may merge to economise on costs or bolster their resilience. Recently, four credit unions have merged in order to better benefit from efficiencies of scale.²

The Reserve Bank's approach to regulation reduces, but does not eliminate, the possibility that some NBDTs might fail or withdraw from the sector. The failure of individual NBDTs is unlikely to weaken the soundness and efficiency of the financial system. But broader weakness in the NBDT sector could have a larger impact on the financial system or disrupt the availability of financial services in certain communities. As a result, the Reserve Bank continues to monitor the sector carefully.

¹ Despite consolidation trends, the NBDT sector has adjusted reasonably well to the increased regulation since 2009. For more information see Collins, R., T. Irrcher (2019), 'A tale of small branches: NBDT sector performance under increased regulatory scrutiny', *RBNZ Bulletin*, Vol.82, No.5, May 2019.

² Aotearoa Credit Union, NZCU Baywide, NZCU Central and NZCU South.

Table 4.2
Selected metrics for the non-bank deposit taker sector

Metric	December 2018			December 2017		
	Building societies	Credit unions	Finance companies	Building societies	Credit unions	Finance companies
Total assets (\$ million)	996	1,156	410	910	1,123	494
Capital ratio (%)	11.1	14.7	14.5	10.4	14.7	14.2
Non-performing loan ratio (%)	0.2	2.8	3.9	0.2	2.4	4.0
Return on assets (%)	0.9	-0.1	1.2	0.8	0.3	2.0
Cost-to-income ratio (%)	47.9	94.4	78.9	63.5	87.1	67.0

Source: RBNZ NBDT Survey.

Note: Excludes UDC Finance Limited, which is consolidated into the Reserve Bank's banking sector statistics. NBDTs must have minimum capital requirements in their trust deeds. The Reserve Bank specifies minimum levels for these requirements. For NBDTs with credit ratings, the minimum is 8 percent. For other NBDTs, the minimum is 10 percent if an NBDT has assets of less than \$20 million or 12 percent if an NBDT has assets of \$20 million or more.

Insurers

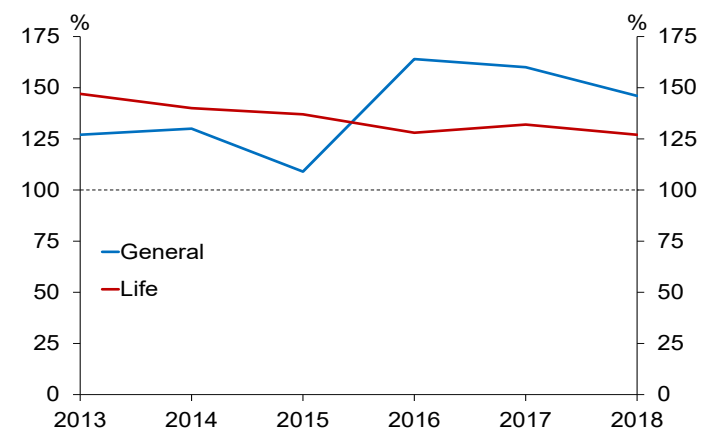
Insurers' solvency ratios have continued to decline...

A sound insurance sector needs insurers that are strongly capitalised and can withstand a range of possible loss events. The solvency of New Zealand's insurance sector has fallen, despite the sector being profitable.

The Reserve Bank currently requires New Zealand insurers to maintain a solvency ratio above 100 percent. All New Zealand insurers, except one, are meeting their minimum solvency requirements, but solvency ratios have continued to decline for both life and general insurers (figure 4.8). Overall, solvency ratios have fallen for larger insurers but held steady or increased for smaller insurers. Some insurers should increase their solvency ratios to improve their resilience to financial shocks.

The situation with locally incorporated New Zealand insurers contrasts with that of Australian insurers with New Zealand branches, whose solvency ratios have been increasing (figure 4.9). This divergence is partly due to regulations in Australia that can require Australian insurers to build or maintain buffers over their minimum solvency requirements. The Reserve Bank will consider the case for requiring insurers to maintain solvency buffers in New Zealand as part of a forthcoming review of the Insurance (Prudential Supervision) Act 2010 (IPSA).

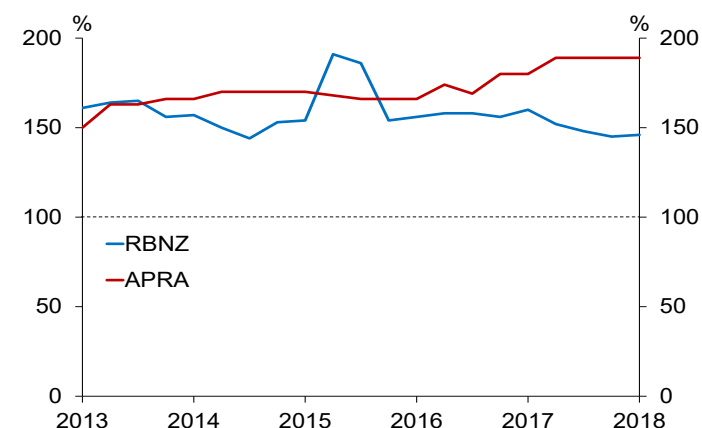
Figure 4.8
Solvency ratios, by sub-sector



Source: RBNZ *Insurer Return*.

Note: The health insurance subsector is not shown. Its solvency ratio, adjusted for licence conditions, is in excess of 300 percent. Averages are weighted by insurers' minimum solvency capital requirements (adjusted for licence conditions).

Figure 4.9
Solvency ratios for insurers subject to RBNZ and APRA solvency requirements



Source: RBNZ *Insurer Return*, Australian Prudential Regulation Authority (APRA).

Note: The RBNZ line represents all insurers that are subject to RBNZ solvency requirements. The APRA line represents all New Zealand licensed insurers that are Australian-based and exempted from RBNZ solvency requirements (i.e. Australian insurers with New Zealand branches).

...and an insurer failed in November 2018.

CBL Insurance Ltd (CBL) is the only insurer known to be in breach of the Reserve Bank's minimum solvency requirements. CBL was placed into liquidation in November 2018. The first liquidator's report was published in December 2018 and gave a range for CBL's net liability position (i.e. capital deficit) of \$188 million to \$344 million. There is still substantial uncertainty in the value of CBL's assets and liabilities, so the ultimate loss could be materially higher or lower than this range.

Following CBL's failure, the Reserve Bank commissioned an external independent report on the licensing and supervision of CBL. The report identifies lessons for the Reserve Bank from the failure of CBL and broader implications for the insurance regulatory regime. The Reserve Bank intends to release the findings of the report as soon as it is able, and is consulting parties named in the report and considering their feedback.

When it has considered the report, the Reserve Bank will announce its response. The findings of the report will feed into the Reserve Bank's future review of IPSA and help inform how the Reserve Bank supervises insurers in the future.

The conduct and culture review identified weaknesses.

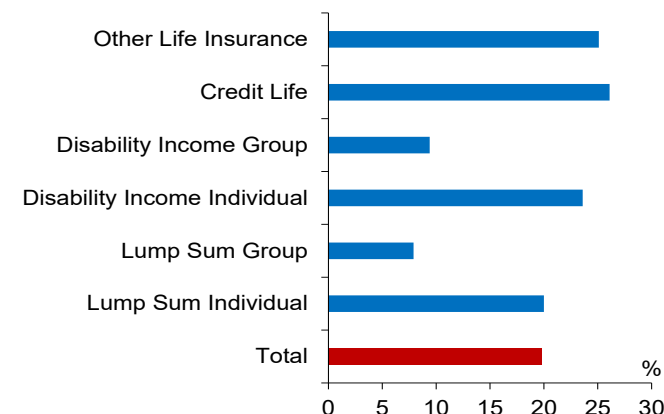
The conduct of insurers directly affects customers, and culture is a key driver of a firm's conduct. The FMA and Reserve Bank published the results of a review of the conduct and culture of 16 New Zealand life insurers, in January 2019.³ Specific findings, along with general

³ See [Life Insurer Conduct and Culture: findings from an FMA and RBNZ review of conduct and culture in New Zealand life insurers](#), Financial Markets Authority and Reserve Bank of New Zealand, January 2019.

observations, have been provided to each insurer involved in the review, and they are required to respond by the end of June 2019.

The review showed the life insurance sector in a poor light. It found that all life insurers need to make substantial improvements to how they identify, manage, remediate and report on conduct risks and issues, in order to deliver better customer outcomes. The review asked insurers to review their commission structures. The level of commission payments made to intermediaries / agents for New Zealand life insurance contracts is very high compared to international norms, although it varies across different products (figure 4.10).

Figure 4.10
Commission ratios by life insurance product
(as % of gross premium revenue, year to September 2018)



Source: RBNZ Insurer Return.

Note: Excludes specialist reinsurers and captive insurers.

While life insurers were prioritised for the review, all insurance sectors should actively consider conduct risk within their businesses. All insurers are expected to assess their conduct and culture governance frameworks and act on all relevant recommendations in the report.

Insurance pricing has become more risk-sensitive...

Sound pooling and pricing of risk is a fundamental feature of an efficient and sustainable insurance sector. Insurers are increasingly using granular data on risk exposures and historical claims experience to price risks more accurately. A consequence of this greater 'risk-based pricing' is increased selectivity, differential pricing and changes in levels of coverage for insurance contracts. It will enable insurers to make targeted responses as they change their assessments of the risks of climate change to coastal property, areas prone to flooding, and more frequent extreme weather events.

Risk-based pricing results in higher insurance costs for some, and a transfer of risk from insurers to affected households and businesses, and institutions that lend to them. This is likely to reduce the value of assets negatively affected by risk-based pricing, and weaken the financial positions of the assets' owners. A rapid and disorderly change in the provision of insurance could also reduce competition and efficiency in the insurance market.

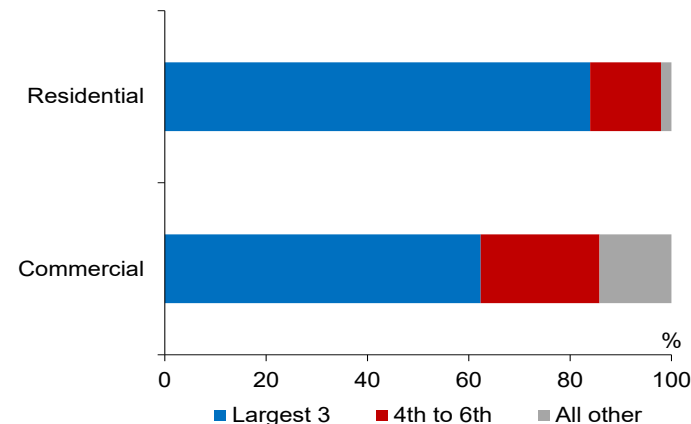
The impact of risk-based pricing in New Zealand is likely to be amplified by the high concentration of the general insurance sector (figure 4.11). High concentration reduces the capacity for other insurers to insure risks affected by risk-based pricing.

...affecting the affordability of home insurance.

Some of the impact of risk-based pricing has already occurred. A greater appreciation of earthquake risks in New Zealand following the Canterbury and Kaikōura earthquakes has caused some insurers to change the price and coverage of some home and contents insurance contracts to better reflect the underlying risks of properties they insure. This has caused a

decline in the affordability of home and contents insurance for relatively risky properties.

Figure 4.11
Market share of property insurers, by sub-sector (% of gross premium revenue, year to September 2018)



Source: RBNZ Insurer Return.

Note: Includes New Zealand insurance business only. Excludes inward reinsurance and foreign business.

Currently, it is expected that a small proportion of insurance customers will face materially higher prices, and very few will be unable to obtain full insurance cover. But the precise impact on the overall availability and price of insurance is uncertain, reflecting limited information on reinsurance costs for New Zealand and insurer strategies. The Reserve Bank is engaging with insurers and reinsurers to better understand the evolving position in more detail.

It is likely that risk-based pricing will become more widespread in New Zealand over time. Owners of particularly high-risk assets should be aware that their insurance costs are likely to rise and the level of cover that they can obtain may become more limited in the future.

Table 4.3
Key metrics for New Zealand's insurance sector

Metric	Value (%)		Reg. Min. (%)	Comment
	Current	1 year ago		
Non-life insurers				
Solvency ratio – general	146	160	100	Almost all general insurers are meeting the Reserve Bank's solvency requirements, but buffers have continued to decline.
Solvency ratio – health	348	383	100	Health insurers have stronger capital buffers, reflecting that many are mutual companies with restricted access to capital.
Profit margin	6	4		Profit margins appear to be in line with those of international peers. Margins are higher for general insurers than for health insurers.
Expense ratio	14	14		Expense ratios compare favourably with those of international peers. Expense ratios for health insurers are lower than those for general insurers.
Life insurers				
Solvency ratio	127	132	100	Life insurers are meeting the Reserve Bank's solvency requirements, but buffers have continued to decline.
Profit margin	18	20		Profit margins appear to be high relative to international peers. Bancassurers* and mature traditional businesses tend to have higher profits than insurers that distribute through advisors.
Expense ratio	22	21		Bancassurers have expense ratios in line with international averages. Expense ratios for other types of life insurer are significantly higher.

Source: RBNZ *Insurer Return*, RBNZ *Quarterly Insurance Survey*.

Note: Solvency ratios are as at 30 September 2018 and are for the whole industry. Profit margin and expense ratios are for 31 December 2018 and cover 88 percent of the insurance industry by premium. Profit margin is profit after tax divided by gross premium (expressed as a percentage); note that this measure overstates profitability for mature traditional life insurers with large balance sheets and low levels of premium. Expense ratio is non-commission expenses divided by gross premium (expressed as a percentage).

* Bancassurers are insurers that distribute products largely through banks.

Financial market infrastructures

Financial market infrastructures (FMIs) – such as payment systems, settlement systems, central counterparties, central securities depositories, and trade repositories – deliver services that are vital to the smooth functioning of the financial system.

The regulation of FMIs is due to be updated.

Work is underway on the drafting of a new legislative framework for the regulation of FMIs. The framework will be jointly administered by the Reserve Bank and the FMA (except for payments systems, which will be solely administered by the Reserve Bank). An exposure draft of the framework is expected to be released for public comment in June 2019.

The framework focuses on the regulation of FMIs that are identified as systemically important ('designated FMIs').⁴ It will provide the Reserve Bank and FMA with various regulatory powers in relation to designated FMIs, including the ability to set regulatory standards, powers to oversee rules, investigative and enforcement powers, and crisis management powers. The framework will also provide information-gathering powers over non-designated FMIs to ensure that the broader sector is monitored and that systemically-important FMIs are promptly identified.

⁴ FMIs not identified as systemically important can choose to be a designated FMI, e.g. to access legal protections around settlement finality and netting.

SWIFT is improving its cyber security.

SWIFT is a key messaging system used by banks to exchange payment instructions with FMIs. Its integrity is fundamental to the smooth operation of the financial system. SWIFT is undertaking a Customer Security Programme (CSP) aimed at improving the cyber security of users' systems in order to enhance the resilience of SWIFT's messaging system. This will indirectly help safeguard all consumer payments.

Users of SWIFT are required to implement a set of security controls and attest to SWIFT every 12 months that the controls are in place. The Reserve Bank encourages domestic SWIFT users to meet their CSP obligations. To date, the programme has already seen New Zealand users identify and address issues with their security arrangements.

Innovation in retail payments is underway.

Payments NZ has a lead role in the development of new retail payment systems. It is leading work aimed at enhancing the existing retail payment systems, including:

- enabling retail payments to be processed on weekends and public holidays; and
- further speeding up of the processing of interbank retail payments.

Payments NZ is also coordinating the development of a standardised Application Program Interface (API) framework in New Zealand that will enable banks and service providers to exchange customer data securely. The API framework will enable the creation of new retail payment systems that can improve payment system efficiency and convenience for users. In March, Payments NZ released the standards for APIs

relating to the initiation of payments and the exchange of account information.

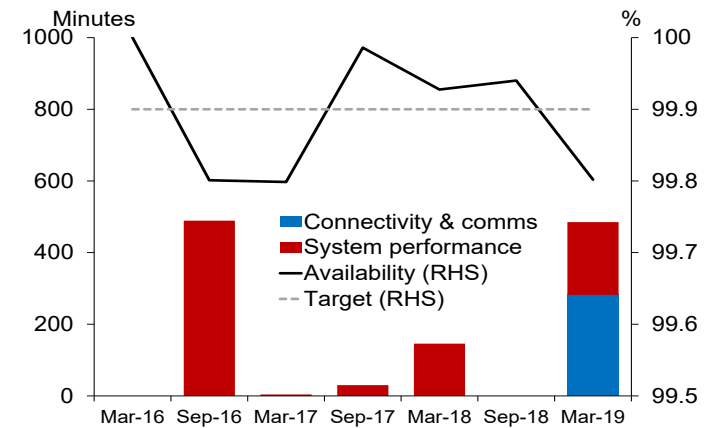
ESAS and NZClear are being made more resilient.

The Reserve Bank operates two critical FMIs: the Exchange Settlement Account System (ESAS), which settles all financial transactions involving interbank payments, and NZClear, which settles trades of securities. The availability of ESAS and NZClear was 99.8 percent over the past 12 months, slightly below the Reserve Bank’s target of 99.9 percent availability (figure 4.12). This below-target performance reflects two periods of impaired system performance. In November 2018, changes to the interface between NZClear and SWIFT led to inadvertent changes in settings that prevented messages being exchanged with users. In January 2019, an IT disruption temporarily reduced the system’s performance. In both cases the issues were fixed on the day.

The Reserve Bank is replacing the hardware and software that underpin ESAS and NZClear. The current system will soon become obsolete, increasing the risk of performance failure. Although switching to new systems carries risks, the Reserve Bank is managing the transition to minimise disruptions.

The new systems were originally expected to be operational from April, but implementation has now been delayed. A new go-live date has not yet been set. The delay is due to software development complications. The new system will not go live until it has been rigorously tested by the Reserve Bank and the system users.

Figure 4.12
ESAS/NZClear
availability
and outages



Source: RBNZ.

Note: System performance outages and connectivity and communications outages are for the six months to the end of the given month. Availability is for the 12 months to the end of the given month. ESAS and NZClear availability are reported together because of the close links between the two systems.

Chapter 5

Regulatory developments and initiatives



The Reserve Bank undertakes a wide range of reviews, consultations and initiatives to ensure it best meets its objective of promoting the maintenance of a sound and efficient financial system. This helps ensure that the Reserve Bank's policies and practices are up to date and respond to changes in the financial system, legal system and broader regulatory landscape in New Zealand and abroad.

The RBNZ Act is currently under review...

Since 2017, the Government has been reviewing the Reserve Bank of New Zealand Act 1989 (the 'RBNZ Act') to ensure that the Reserve Bank's responsibilities, governance arrangements and policy frameworks are up to date. Phase 1 of the review, which considered the monetary policy arrangements, finished on 1 April 2019. Phase 2 focuses on the financial policy framework.

The first consultation within Phase 2 closed in January 2019. The Government will shortly publish a second consultation paper, setting out its decisions on the topics covered in the first consultation, including objectives, depositor protection and governance. The second consultation will also open discussion on some remaining issues, including: the legal basis for bank regulation; the Reserve Bank's approach to supervision and enforcement; macro-prudential policy; crisis

management; and resourcing and funding. A final consultation document, seeking feedback on residual issues, will be published later this year. The Reserve Bank encourages people to provide their views on the consultations.

...as is the macro-prudential policy framework.

Phase 2 of the review of the RBNZ Act will include a review of the governance and accountability framework for macro-prudential policy, established in 2013. Macro-prudential policy complements the Reserve Bank's prudential regulation by lowering the likelihood of a financial crisis, for example, by improving the resilience of borrowers and banks.

The Reserve Bank recently published a refreshed decision-making framework for macro-prudential policies, along with a review of the lessons from the use of macro-prudential policy in New Zealand.¹ The Reserve Bank also plans to publish more detail on the indicators that will guide the future use of macro-prudential instruments. These publications are designed to improve the quality, predictability and transparency of macro-prudential policy decisions, which will improve accountability.

¹ Links to the papers can be found in the [Reserve Bank's media release](#).

The Reserve Bank has proposed higher bank capital requirements...

The Reserve Bank's bank capital framework is an important financial policy tool, as it helps determine the size of losses that banks can absorb before they fail. The Reserve Bank has been reviewing the bank capital framework since 2017 and, in December 2018, published proposals to increase capital requirements for New Zealand banks to make the banking system more resilient to shocks (see chapter 4).²

The Reserve Bank has proactively sought feedback on the proposals, and is open to changing the proposals based on the feedback it has received. Submissions on the December 2018 consultation closed on 17 May, and the Reserve Bank is now considering the submissions. Key decisions on the capital review are expected to be published by the end of November 2019, together with a response to submissions to the December 2018 consultation and a Regulatory Impact Statement.

...and is following up on the review of bank conduct and culture.

The conduct of banks is also important for the soundness and efficiency of the financial system. Conduct affects public confidence in banks and influences how well banks serve their customers. In November 2018, the Reserve Bank and the Financial Markets Authority (FMA) completed a review of the conduct and culture of the 11 largest retail banks in New Zealand.³ The review found weaknesses in the governance and management of conduct risks, and significant gaps in the measurement

² All relevant material can be found on the Reserve Bank's [website on the review of the capital adequacy framework for registered banks](#).

³ The findings were published in the [report on Bank Conduct and Culture](#).

and reporting of customer outcomes. There were significant variations in the maturity of banks' approaches to identifying, managing and remediating conduct issues.

Individual feedback was sent to each bank and, in response, all banks provided action plans. A good plan is an important part of ensuring banks address the issues identified in the conduct and culture review. Each bank will be provided feedback on its plan in due course, including on where the plan could be improved or made clearer. The Reserve Bank and FMA also intend to publish a statement following the review of the plans.

The Reserve Bank is reviewing the framework for regulating insurers...

The Reserve Bank regulates and supervises insurers because they are essential for New Zealanders who want to reduce their risks. The prudential framework for regulating and supervising insurers is set out by the Insurance (Prudential Supervision) Act 2010 (IPSA), and supplementary regulations. The Reserve Bank is set to recommence a review of IPSA, including the capital / solvency standards and risk management policies. Recommendations from the external independent review of the Reserve Bank's licensing and supervision of CBL Insurance Ltd (see chapter 4) will feed into the review of IPSA.

Solvency standards influence the ability of insurers to absorb unexpected losses. Currently, insurers are required to meet a minimum solvency capital ratio of 100 percent. The Reserve Bank intends to consider whether additional solvency buffer requirements are justified. Solvency buffer requirements are applied to insurers in other jurisdictions and analogous requirements are applied to banks in New Zealand.

The Reserve Bank and FMA also recently published a report on the conduct and culture of life insurers, which found multiple issues with the identification and measurement of conduct risks. Life insurers are required to provide a response to the findings of the report by June 2019.

...including the appointed actuary regime.

IPSA requires each insurer to have an 'appointed actuary' who is responsible for a number of functions, including reviewing elements of financial statements. The Reserve Bank is currently conducting a thematic review of the appointed actuary regime. The review aims to (a) better understand how the appointed actuary role works in practice for insurers, actuaries and supervisors, and (b) identify potential areas for improvement, such as policy changes or guidance, that would make the role more effective.

Open forums have been held in Auckland and Wellington, along with meetings with key stakeholders, for feedback on the objectives and the draft review plan. The Reserve Bank will publish a thematic report at the completion of the review and will consult on any policy changes that come out of the review.

The Reserve Bank is deepening its knowledge of financial inclusion.

Financial inclusion is an important part of the Reserve Bank's approach to promoting a sound and efficient financial system. A lack of financial inclusion can lead to undesirable effects for New Zealand communities, including:

- poor availability of accessible and safe financial products;

- restricted access to banking and insurance services; and
- societal problems from the impact of high-cost short-term loans.

The Reserve Bank is working with the finance sector and other stakeholders to develop a deeper understanding of the interaction between its policies and financial inclusion. The long-term aim is to ensure financial inclusion is firmly embedded in the Reserve Bank's normal business practices.

The Reserve Bank has already begun a number of projects that will help promote financial inclusion. A year ago the Reserve Bank launched the Bank Financial Strength Dashboard ('dashboard'), an online tool for disclosing financial information on banks.⁴ The dashboard allows a side-by-side comparison of banks on a range of key metrics, to help the public and investors judge the relative safety of banks before investing funds. Public feedback on the dashboard has been positive and there has been an average of 10,000 visits to the dashboard per quarter.

The Reserve Bank has also been considering the future of cash in New Zealand. The use of cash for transactions is declining. If this leads to a reduction in the acceptance of cash, it could cause problems for vulnerable people who are heavily reliant on cash. The Reserve Bank is currently undertaking analysis to inform upcoming decisions on the appropriate future role of cash, and to assess what government intervention, if any, is needed. Final decisions will only be made after consultation with all relevant stakeholders.

4 [The Bank Financial Strength Dashboard](#).

The Reserve Bank has become more active on climate change risks.

The Reserve Bank has a strong interest in climate change, as it will have a significant effect on New Zealand's economy and financial system. The Reserve Bank has developed a climate change strategy and is engaging with New Zealand's financial industry to respond to climate change risks (see box B).

The Reserve Bank also participates in international groups working on the global financial system's response to climate change risk. It has joined the Sustainable Insurance Forum, which promotes supervisory and regulatory leadership on sustainability challenges and opportunities for insurers. The Reserve Bank has also joined the Network for Greening the Financial System (NGFS), a network of 36 central banks and financial supervisors coordinating work on climate change risks and promoting investment in green technology.

In April, the NGFS published its first comprehensive report, which included six recommendations for central banks, supervisors and financial institutions to enhance their role in managing climate change risks. In addition, the Reserve Bank has agreed, with other central banks in the South Pacific region, to involve the NGFS in an event in November 2019 to consider the potential impacts of climate change on the South Pacific's financial systems, and the appropriate responses to potential risks.⁵

⁵ The other central banks are Reserve Bank of Australia, Reserve Bank of Vanuatu, Reserve Bank of Fiji, Banco Central de Timor-Leste, Central Bank of Samoa, National Reserve Bank of Tonga, Bank of Papua New Guinea and Central Bank of Solomon Islands.

Appendix

Compliance and other supervisory actions



Westpac New Zealand Limited's internal capital models

In November 2017, the Reserve Bank imposed higher minimum regulatory capital requirements on Westpac New Zealand Limited (Westpac) after an independent review found Westpac had failed to comply with regulatory obligations relating to its status as an internal models bank.¹

Westpac has been undertaking a remediation programme that includes the development of a new suite of credit risk models and improvements to its internal controls and model governance. It is expected to provide a submission to the Reserve Bank detailing its remediation work in June 2019. Higher minimum capital requirements will continue to be imposed on Westpac until the Reserve Bank makes its final assessment of that submission.

ANZ capital model for operational risk

In May, the Reserve Bank revoked ANZ Bank New Zealand Limited's (ANZ's) accreditation to model its own operational risk capital requirement due to a persistent failure in its controls and attestation process. ANZ's directors have attested to compliance despite the approved model not being used since 2014. The fact that this issue was not identified for so long highlights a persistent weakness with ANZ's assurance process. ANZ is now required to use the standardised approach for calculating appropriate operational risk capital.

ANZ rural and housing risk weights

In May, the Reserve Bank imposed new conditions of registration on ANZ that set minimum risk weights for the bank's non-defaulted housing and farm lending portfolios, effective on 30 June 2019. Risk weights measure the riskiness of loans within a portfolio and determine capital requirements. Minimum risk weights for ANZ were set following the conclusion of the Reserve Bank's benchmarking project. This project assessed the conservatism of housing and rural credit risk models used by banks accredited to model their own credit risk capital requirements.

¹ [Announced by the Reserve Bank on 15 November 2017.](#)