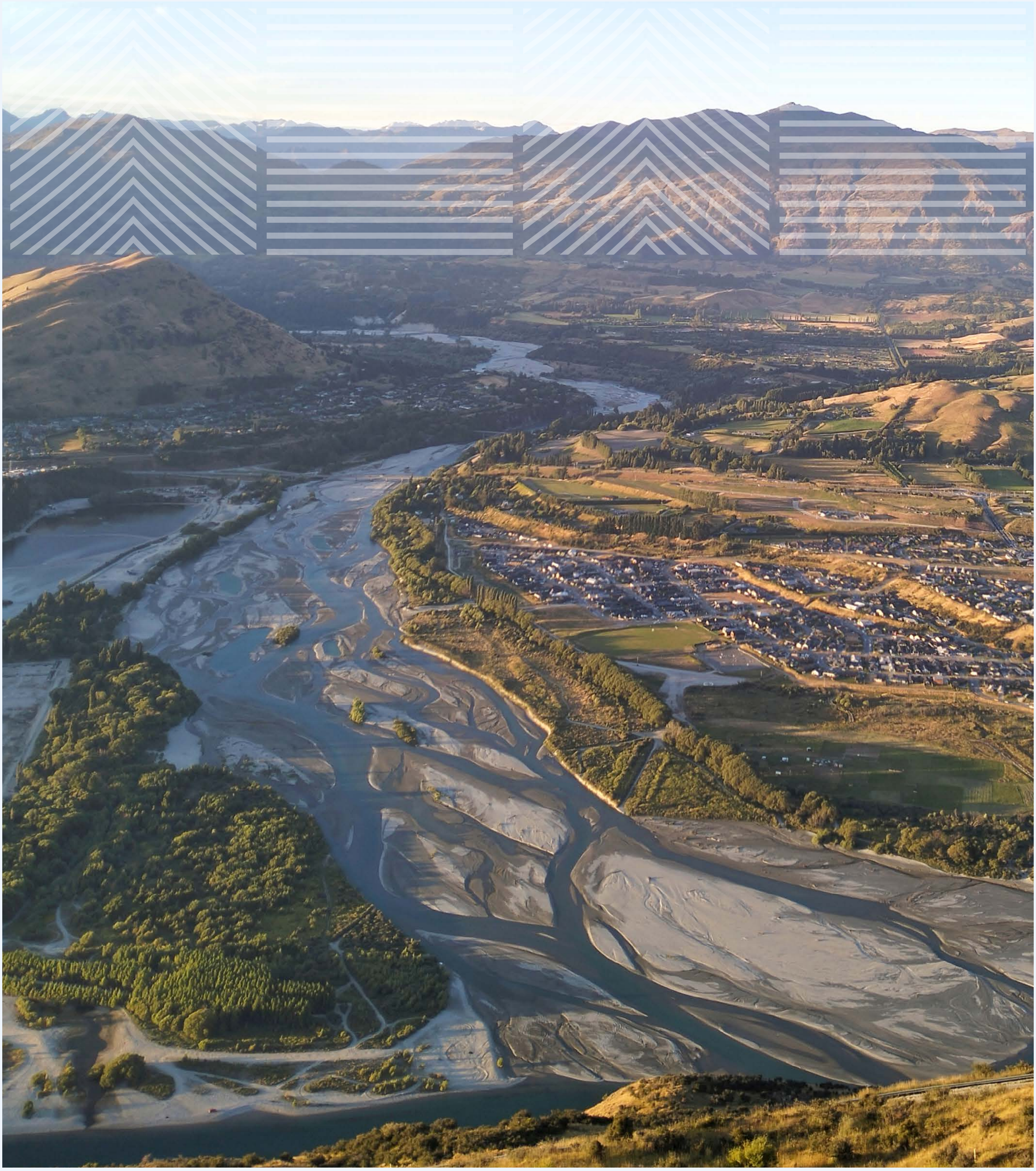
Reserve Bank
of New Zealand
Te Pūtea Matua

05/2023

Financial Stability Report



Purpose of the Financial Stability Report

The *Financial Stability Report* outlines our assessment of the state of, and risks to, financial stability. The *Report* is one of our key publications, and aims to raise public awareness of developments in the financial system. It is published pursuant to section 170 of the Reserve Bank of New Zealand Act 2021, which states that the *Report* must:

- report on matters relating to the stability of New Zealand's financial system, and other matters associated with the Reserve Bank's prudential objective; and
- contain the information that is necessary or desirable to allow an assessment to be made of the effectiveness of the Bank's use of its powers to protect and promote the stability of New Zealand's financial system, and achieve the prudential objective.

Our prudential objective is to protect and promote the stability of New Zealand's financial system. Financial stability means having a resilient financial system that can withstand severe but plausible shocks and provide the financial services that we all rely on. This ensures everyone in Aotearoa can safely save their money, make everyday transactions, access credit to consume and invest, and insure against risks.

The *Report* outlines our assessment of the state, resilience, and vulnerability of the financial system and its component parts. We assess how global and domestic developments are affecting the financial health of New Zealand's households and businesses, and the financial performance and resilience of our financial institutions. We also highlight longer-term risks and issues that may affect financial stability.

This analysis feeds into setting our strategy and priorities for pursuing our financial stability objectives. These priorities, and progress towards achieving them, are also outlined in the *Report*, including actions to strengthen the regulatory framework, the use of our macro-prudential policy tools to mitigate the build-up of systemic risk, work to enhance the risk management of regulated entities, and our enforcement activities.

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Thank you to staff in the Financial Stability Group for the photography in this *Report*.
Cover image: Shotover River, Queenstown. Photo: Chris McDonald

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Financial Stability Report

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CHAPTER 01

Sunrise Hut, Ruahine Forest Park. Photo: Trent Lockyer

CHAPTER 1
Financial stability risk and policy assessment

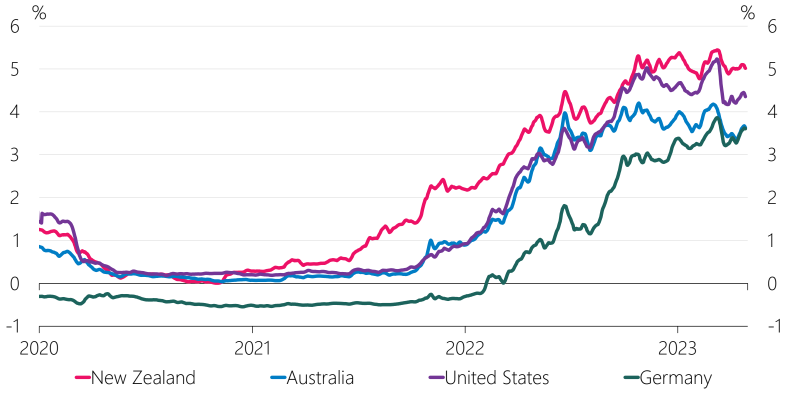
Key points

- Global inflation pressures remain high. Central banks have slowed the pace of their monetary policy tightening in recent months, as they evaluate the effects of prior interest rate increases on demand and the outlook for inflation.
- The increasing interest rate environment has exposed some fragilities in the global financial system, particularly where risks have been inadequately managed. The failure of two medium-sized United States banks and Credit Suisse in March highlighted the speed at which investors can lose confidence in institutions, although the interventions by regulators have contained any broader contagion so far.
- New Zealand households are facing increased debt servicing costs as their borrowing reprices to higher interest rates. To date there have been limited signs of distress in banks' lending portfolios. This reflects the ongoing strength of the labour market and that borrowers have been able to adjust their spending or use previous savings and repayment buffers. However, cash-flow pressures in households are growing and buffers are likely to be tested. A large rise in unemployment remains the biggest risk to domestic financial stability at present.
- Nationally, house prices are down 16 percent from their peak, with larger falls in Auckland and Wellington. Negative equity is still at relatively low levels.
- We are proposing to ease our Loan-to-value-ratio (LVR) settings reflecting the fact that current lending activity presents fewer risks to the financial system and household resilience compared to that of the past couple of years.
- Businesses are adjusting to higher interest rates, with limited signs of servicing stress to date. Vulnerabilities are highest among the agriculture sector and commercial property operators, given their higher average levels of debt, and the impacts of the North Island flooding and cyclone events. Overall, consumer and business confidence is low, pointing to a weaker outlook for household consumption and business investment, and reflecting the dampening effects of higher debt servicing costs.
- New Zealand's financial system is well placed to handle these domestic and international pressures. The banking system's capital and liquidity positions are strong, with profitability and asset quality remaining high. New Zealand banks are not materially exposed to the interest rate risks that have been realised in banks overseas. Insurers have considerable reinsurance in place for the recent weather events, but claims for these events will cause a drop in insurers' profitability for some time and will increase reinsurance costs for New Zealand.
- Overall, New Zealand's financial institutions are well positioned to continue to take a long-term perspective and support their customers through the current economic challenges.

Inflation remains high and central banks have continued tightening monetary policy, albeit at a slowing pace

Inflation is persisting at levels well above central banks' policy targets, as the global economy continues to experience fallout from the supply shocks of COVID-19 and Russia's invasion of Ukraine. The lagged effects on demand of the significant monetary and fiscal stimulus deployed in response to the pandemic are now fading. However, labour markets remain historically tight and high inflation expectations are requiring central banks to continue to raise their policy rates. The pace of tightening is slowing, with central banks evaluating the effects of the cumulative increases in interest rates to date on economic activity, the outlook for inflation, and financial stability. As a result, the upward trend in interest rates has slowed, but volatility remains high given ongoing uncertainty about the speed at which inflation will reduce (figure 1.1).

Figure 1.1
2-year wholesale interest rates
(swap rate, weekly average)



Source: Reuters.

The rising interest rate environment is exposing fragilities in the global financial system, prompting regulators to intervene to prevent contagion

Following the Global Financial Crisis prudential regulators strengthened capital and liquidity requirements significantly, and developed enhanced tools for resolving banks that encountered stress. While banking systems as a whole are more resilient now than they were a decade ago, the rapid adjustment of monetary policy in response to high inflation is creating difficulties for institutions that have taken on excessive risks during the preceding period of very low interest rates. Investors have also been reassessing the ongoing viability of some business models. Since early March a number of financial institutions in the United States and Europe have encountered difficulties and had their regulators intervene to mitigate the spread of panic to other institutions.

Rising interest rates reduce the current market value of long-term financial assets such as government bonds and mortgage-backed securities, potentially creating large unrealised losses for institutions holding these assets. Where such assets have been funded with short-term liabilities, such as deposits, and the risks have not been hedged, banks may be forced to realise losses on these assets if they face abrupt withdrawals of this funding, for example due to a loss of confidence. Silicon Valley Bank (SVB) in the United States faced this scenario in early March, with the run on its funding being accelerated by the deposit base comprising large, uninsured deposits by interconnected technology firms.

US authorities intervened to stem further contagion, but the failure of SVB and two other banks prompted a general reassessment by the market of vulnerabilities across banking systems. Following several years of financial underperformance and scandals, Switzerland-based global investment bank Credit Suisse experienced a loss of confidence among its investors and clients, and was forced to accept a distressed acquisition by its peer UBS.

While each of these bank failures had idiosyncratic factors behind them, these developments have seen a tightening in global financial conditions more broadly, including in bank wholesale funding markets and in credit conditions for households and businesses. The International Monetary Fund has also highlighted the risks to sovereign debt sustainability as the global economy adjusts to higher interest rates.[1]

1 See International Monetary Fund *Global Financial Stability Report*, https://www.imf.org/en/Publications/GFSR/Issues/2023/04/11/global-financial-stability-report-april-2023.

New Zealand banks generally take on little interest rate risk, both through having relatively short repricing profiles for their lending and funding, and through the use of hedging instruments (see Box A). Moreover, we set minimum capital requirements for any residual interest rate risks carried by banks, further incentivising the prudent management of this risk. The short fixing profile of New Zealand banks' lending means that in effect, the risk of interest rate fluctuations is borne by borrowers over the term of their borrowing, rather than by the banking system.

New Zealand households and businesses are facing higher debt servicing costs, but most borrowers are adapting so far

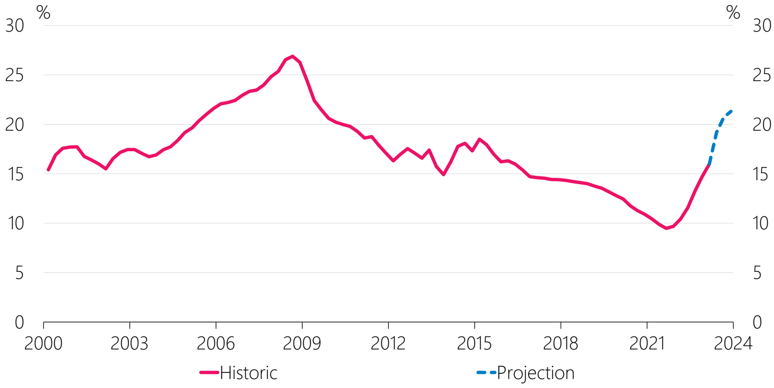
With rising interest rates since mid-2021, household and business borrowers have been gradually adjusting to significantly higher debt servicing costs. Mortgage lending that was fixed at the low rates that prevailed in the early period of the pandemic continues to roll over to higher fixed rates. For households with mortgages, we estimate that in aggregate the share of their disposable income dedicated to interest costs will rise from a low point of 9 percent to around 22 percent by the end of this year (figure 1.2).

While most households have been adapting, financial buffers will continue to be tested

The rapid rise in debt servicing costs is testing the cash flows of some households, particularly those that borrowed at high debt-to-income (DTI) multiples during the period of low interest rates. Many of these borrowers are repricing to interest rates above those at which their servicing capacity was assessed by the lenders. This trend, alongside increases in the cost of living, means cash flow stresses are growing amongst this group (see Special Topic 1 in Chapter 2).

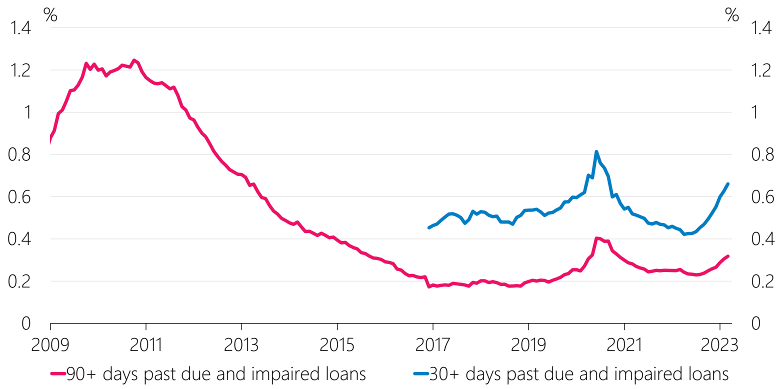
To date, mortgaged households appear to be generally coping with interest-rate repricing. Arrears rates have increased, but from a very low level, and there have been limited signs of distressed or increased mortgagee sales of properties (figure 1.3). In part, this reflects the fact that household incomes have grown strongly over recent years, meaning borrowers have had sufficient cash flows to meet their higher repayments. Households are also adapting by reducing discretionary spending and drawing on savings, including working with their banks to extend the durations of their mortgages where they are ahead of their repayment schedules. A further key support factor for households has been the strong labour market. Nevertheless, the ongoing repricing of the stock of lending is likely to see the growth of lending in arrears continue. A significantly larger increase in unemployment than projected in our monetary policy outlook remains a key risk to monitor for financial stability.

Figure 1.2
Average interest servicing costs as a share of mortgaged households' disposable incomes



Source: Stats NZ, RBNZ *Income Statement survey*, RBNZ estimates.

Figure 1.3
Housing lending in arrears and non-performing
(share of lending by value, seasonally adjusted)



Source: RBNZ *Bank Balance Sheet survey*, RBNZ estimates.

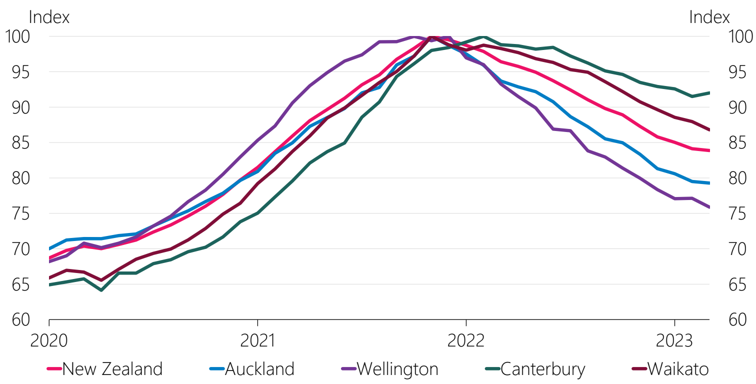
House prices continue to decline, and market activity has been subdued as lending conditions remain tight

With increased interest rates, prospective borrowers' debt servicing capacity has declined and the relative attractiveness of buying compared to renting has fallen. Prices and activity in the housing market have continued to fall, with nationwide house prices now around 16 percent below their peak (figure 1.4), taking them back to levels seen around the start of 2021. Price falls in Auckland and Wellington have continued to lead the rest of the country, with these markets 21 and 24 percent down from their respective peaks. Inventories of houses for sale have remained relatively high, with new builds continuing to come onto the market, and sales falling to historical lows. Given strong nominal income growth in recent years, house price to income ratios have also fallen substantially (figure 1.5).

Figure 1.4

New Zealand house prices, relative to their peaks

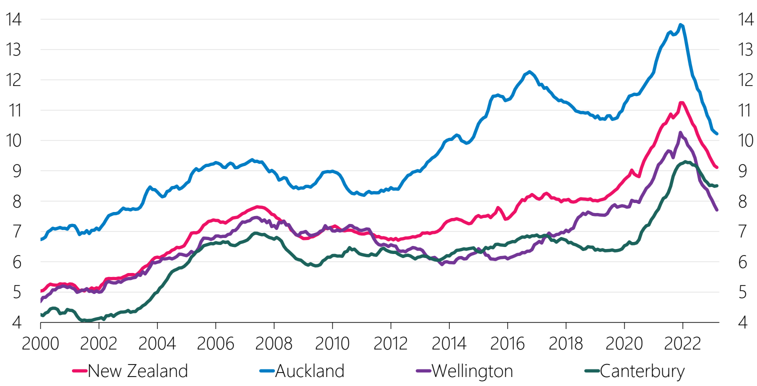
(seasonally adjusted)



Source: REINZ, RBNZ estimates.

Figure 1.5

Median house price to median household disposable income ratios, by region



Source: REINZ, Stats NZ, RBNZ estimates.

Lending conditions for housing remain tight, with banks typically now assessing borrowers' servicing capacity at interest rates around 8.75 percent. As a result, lending at high DTI multiples has declined. Loan-to-value ratio (LVR) limits and the ongoing phasing out of the tax deductibility of mortgage interest have also contributed to weak demand among investors. Current financial conditions mean that the prospective rental yields on investment property remain relatively unattractive, even with the drops in house prices seen to date.

The outlook for residential development has continued to deteriorate given the headwinds of high and uncertain interest rates, ongoing construction cost inflation, and the steady supply into the market of previously committed new builds. Pre-sales activity remains subdued, limiting the number of viable projects for which developers can obtain finance. The completion of the existing pipeline of developments is keeping construction activity high for now, but there will be a slowdown in activity once these projects have been completed.

Our current assessment is that, given recent falls, New Zealand house prices are closer to being at sustainable levels than has been the case in recent years. Current prices are within the range of fundamental values suggested by some of the metrics we monitor, but the overall balance across indicators suggests prices remain somewhat overvalued.

In the near term prices may continue to soften, given the level of interest rates, the ongoing completion of houses currently under construction, and weak market activity and sentiment. However, there remains the risk of house prices declining significantly below our assessment of their sustainable level, particularly if the number of distressed sales picks up, generating self-reinforcing negative feedback effects.

We are proposing to ease loan-to-value ratio limits given diminishing housing market risks

We recently announced a proposed easing in our LVR speed limits from historically tight settings.[2] This reflects our assessment that current lending activity presents fewer risks to financial stability and household resilience than those of the past couple of years. LVR speed limits apply to the flow of new lending, and therefore our risk analysis focuses on the extent to which current and future lending behaviour and house prices add risk to the financial system (for example, reducing households' resilience through increasing the sector's leverage and exposure to large house price corrections). House prices have declined closer to our assessment of their sustainable level, and high-DTI lending has fallen. We are confident that allowing a greater share of lending to be at high LVRs will not materially undermine households' resilience, but would help reduce the efficiency and inclusion costs of the LVR policy. In part, this reflects the fact that banks' current debt servicing assessments will limit the extent of any pickup in risky lending in the near term.

While supply chain issues are easing, the business sector is facing a range of other headwinds

Global supply chain pressures that developed during the pandemic have substantially eased over the past year, and the opening of New Zealand's border has seen a continued recovery in tourism, international education, and migration. However, businesses continue to face a challenging operating environment. Input cost inflation remains high, and employment remains above its maximum sustainable level, contributing to high labour costs. Debt servicing costs for businesses have also risen more quickly than those for households, but this has not yet led to significant increases in lending arrears at this stage. However, high interest rates and low business confidence are dampening investment intentions, and lending growth to the business sector has primarily been for working capital needs rather than for expansion. The key risk factor for the business sector as a whole is the outlook for economic activity, and the potential for a large slowdown in demand as households reduce their discretionary spending.

Agriculture and commercial property stand out as business sectors where rising interest rates could lead to financial stresses, given these sectors' reliance on debt-financed physical assets such as property. While the dairy sector has made substantial progress in reducing leverage following the 2015/2016 industry downturn, farmers' profits are being squeezed by rising input costs, a decline in the expected payout for the current season, and higher debt servicing costs.

Meanwhile, commercial property operators face an uncertain outlook as pandemic-induced changes to consumer behaviour and office occupancy continue to affect tenant demand, and discretionary retail spending slows. Liquidity in commercial property markets has been low, and values have not fully adjusted downwards to reflect the higher interest rate environment, particularly for less desirable office and retail buildings.

Banks have generally maintained conservative lending standards for commercial property in recent years, ensuring borrowers have sufficient financial buffers in place. As some stresses now emerge, banks in some cases are in a position to look "through the cycle", and relax covenants relating to debt servicing as operators adjust to higher interest rates and use their buffers. However, firms with weaker balance sheets and some residential developers are likely to encounter difficulty in adjusting to higher interest rates and a weaker market environment. Signs of stress among some higher risk property funds have already emerged.

2 See Reserve Bank proposes to ease LVR restrictions, https://www.rbnz.govt.nz/hub/news/2023/04/reserve-bank-proposes-to-ease-lvr-restrictions

The financial system has been resilient to recent flooding and cyclone events, which may accelerate long-term changes to insurance

The extreme weather events in the North Island earlier this year caused significant economic disruption and physical damage to affected households, businesses and property. Our current estimate is that the Auckland Anniversary Floods and Cyclone Gabrielle will result in total insurance claim costs of $1.6-2.1 billion and $1.4-2.1 billion respectively. While preliminary, we expect the total economic costs of these events, which also include those arising for the reinstatement of infrastructure, claims on EQC, and loss of uninsured property, to be at least double this. New Zealand's financial system as a whole has been resilient to these events, and institutions continue to work with and support affected customers. Looking ahead, these events may accelerate the adoption of risk-based pricing and reduce the availability of flooding insurance in some areas. Banks will also need to consider the impacts this will have on their mortgage portfolios (see Special Topic 2).

New Zealand's banking system is well placed to handle domestic and international pressures

New Zealand banks' profitability has been robust in recent quarters, with a pick-up in net interest margins (NIMs) supporting a return of most profitability metrics to around pre-pandemic levels. Recent profitability partly reflects the lagged adjustment of banks' deposit funding costs to tightening monetary policy (see Special Topic 3). Banks' capital levels continue to increase gradually, ahead of increasing regulatory requirements, as they retain earnings and issue additional capital instruments to further improve their resilience.

Asset quality remains high, but in light of the rising interest rate environment and worsening economic outlook banks have begun to increase provisions in anticipation of stresses they expect to emerge among borrowers. The banking system's funding and liquidity positions are also healthy, with COVID-related stimulus programmes contributing to the ongoing high level of liquid assets and deposits across the system. All New Zealand incorporated banks are subject to quantitative liquidity requirements to promote their resilience to sudden losses of funding. Offshore funding markets have been volatile following events in the US and European banking systems in March, but the large New Zealand banks are well funded, having raised long-term funding in these markets in prior months.

Overall, New Zealand's banking system remains resilient to a wide range of downturn scenarios, as demonstrated in our regular stress tests of their solvency and liquidity positions.[3] New Zealand banks have well developed approaches to managing and mitigating interest rate risk, and are therefore not generally exposed to the problems that have emerged in some overseas banking systems in recent months.

Some deposit takers and insurers face profitability challenges

The non-bank deposit taker (NBDT) sector as a whole has maintained stable capital levels and asset quality, though some smaller institutions continue to face challenges to their profitability and resilience, owing in part to limited economies of scale and ability to raise external capital. Consolidation among credit unions has continued as one way of bolstering resilience in the face of long-term challenges to viability. In addition, the sector will need to adapt to meet changing regulatory requirements in coming years (see Box C).

3 See our website for outcomes of recent stress tests, https://www.rbnz.govt.nz/financial-stability/stress-testing-regulated-entities.

Some insurers are also facing challenges to their profitability in the increasing interest rate environment, which has contributed to losses on their investments. While most of the cost of claims from the North Island weather events will be met by reinsurance, there will be an ongoing impact on insurer profitability from reinsurance excesses. Despite these headwinds, insurers' solvency is expected to remain above prudential requirements. Reinsurance premiums are also likely to rise for New Zealand, as insurers seek to pass on as higher premiums to customers. In turn, this may lead to underinsurance, particularly in higher risk areas.

Policy and supervisory developments

We continue to consolidate and deliver on key initiatives to protect and promote financial stability, with a large but focused work programme underway across our regulatory policy, supervision, and enforcement functions.

A key policy priority is supporting the passage of the Deposit Takers Bill through the Parliamentary process, which will consolidate our prudential regulation and supervision of deposit-taking financial institutions (banks and NBDTs) into a single framework. The Bill will strengthen the Reserve Bank's supervisory toolkit, and introduce a Depositor Compensation Scheme to protect deposits of up to $100,000 per depositor, per institution.

We have refreshed our risk assessment framework to guide the allocation of our supervisory resources. The framework enables a system-wide view of the entities we are responsible for supervising, and will facilitate a proportionate, rigorous, and structured assessment of risk using data and supervisory judgement. Work continues on building out our enforcement, resolution, and specialist risk supervision functions.

Box A

Interest rate risk management in the New Zealand banking system

The recent collapse of Silicon Valley Bank highlights the importance of managing interest rate risk effectively, especially in a rising interest rate environment. This risk is caused by fluctuations in the value of banks' assets and liabilities as interest rates change. If not managed well, changing interest rates can adversely affect banks' capital and liquidity positions.

New Zealand banks are required to hold sufficient capital to cover potential losses arising from interest rate risk, which provides banks with an incentive to manage related prudential risks carefully.

What is interest rate risk?

Interest rate risk is the exposure of a bank's financial position to movements in interest rates. A bank's financial position is affected by interest rate movements because current interest rates affect the present value of the future cash flows from their assets and liabilities. Bank profitability can be affected over time if assets with long-term fixed returns (e.g. government bonds) are funded with liabilities that are sensitive to current interest rates, such as deposits. As interest rates rise, the costs of deposits can become more than the returns from banks' assets, eroding net interest income. Rising interest rates also lower the present value of long-term fixed return assets, which can create potential losses that affect their capital positions. The extent of the impact depends on the magnitude of the interest rate increase and if these losses are offset by having funding with similar fixed returns (which would see equivalent declines in present value), or by hedging with other products.

Interest rate risk can have implications for liquidity as well. For a bank with high exposure to fixed-income assets, rising interest rates may lead to the liquidity problems seen with Silicon Valley Bank. If banks are unable to raise deposits at higher interest rates and pass costs through to loans, this can lead to sudden short-term liquidity problems. Likewise, concerns over the viability of a bank that is heavily exposed to interest rate risk may shake the confidence of depositors in its solvency, potentially leading to increased deposit outflows. In extreme scenarios it can contribute to a bank run.

Mitigating interest rate risk

Banks use strategies such as matching the repricing maturities of assets and liabilities to mitigate interest rate risk. For example, one-year fixed rate mortgages could be matched with one-year fixed rate funding (e.g. term deposits), so that the impact of rising interest rates is offset. They could also use derivative products such as interest rate swaps, futures and forward contracts to hedge any remaining repricing mismatch in their exposures. These strategies can help banks manage the impacts of interest rate changes on their balance sheets. In New Zealand, both of these strategies are commonly used to control risk.

After the 2008 Global Financial Crisis, additional requirements were implemented in the New Zealand financial system to enhance resilience by strengthening capital and liquidity requirements. We expanded prudential requirements to address capital and liquidity risk by requiring banks to have robust frameworks for managing interest rate risk.[4] New Zealand banks are required to hold sufficient capital to cover potential losses arising from interest rate risk, which provides banks with an incentive to manage related prudential risks carefully. They are also required to value their liquid assets at market price instead of book value.

4 Banking Prudential Requirements - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz)

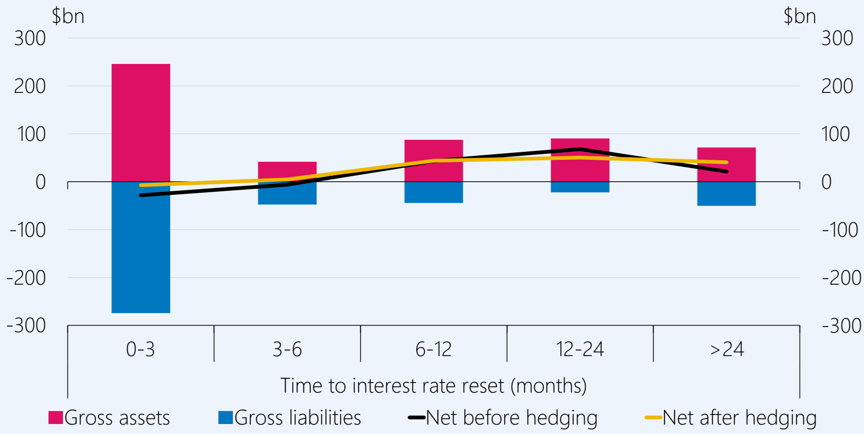
New Zealand banks' interest rate risk

New Zealand banks' lending is generally at variable or short-term fixed interest rates, which means the potential losses for banks from interest rate movements are smaller. Figure A.1 shows how banks match assets and liability repricing maturities to reduce the impacts that interest rate changes have on their net interest incomes. Additionally, residual risk is hedged to further mitigate the risk of losses. New Zealand banks also hold fewer bond assets than banks in other developed economies, and these bonds are accounted for at fair market value.

As a consequence of banks' generally prudent risk management, we see little relationship between fluctuations in interest rates and banks' NIMs (figure A.2). This reflects the fact that the yields on banks assets and liabilities tend to move together as interest rates adjust.

Figure A.1

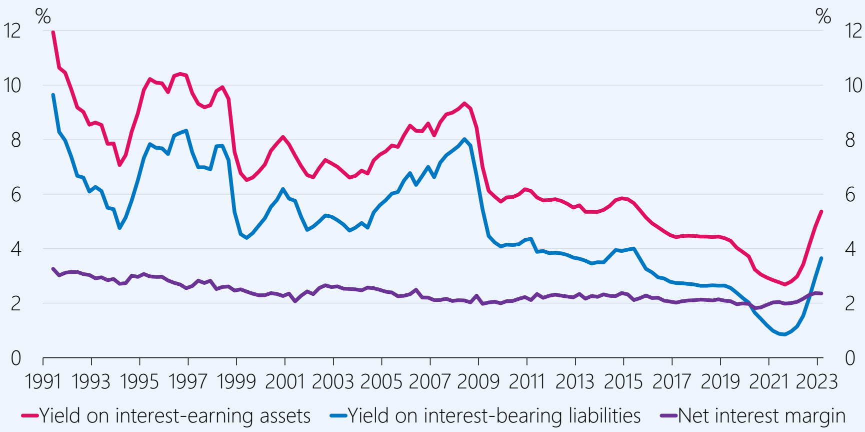
Interest rate repricing schedule of major New Zealand banks



Source: Latest Disclosure Statements of ANZ Bank New Zealand, ASB Bank, BNZ, and Westpac New Zealand.

Figure A.2

Net interest margin, asset yields and cost of funds



Source: RBNZ *Income Statement survey*, registered banks' *Disclosure Statements*.

Special topics

CHAPTER 02

Aoraki Mt Cook. Photo: Charles Lilly

CHAPTER 2
Special topics

This chapter covers topical issues relevant for financial stability in New Zealand. In this *Report*, we cover the following:

I. Financial strain on households and businesses in a higher interest rate environment
II. Financial stability implications of recent North Island weather events
III. Trends in bank profitability

1 Financial strain on households and businesses in a higher interest rate environment

A key question in assessing the outlook for the soundness of the financial system is how households and businesses are adjusting to higher interest rates. In this special topic, we look at early signs of debt servicing stress and the risks it might have for households and businesses.

Household and business lending is steadily repricing to higher interest rates

New Zealand's monetary policy has tightened significantly since mid-2021 in response to a stretched labour market and strong inflation. This has been translating into higher effective interest rates for households and businesses. Around 60 percent of the stock of housing lending is either on a floating interest rate or on a fixed rate that reprices within 12 months, while for businesses around 80 percent of bank lending is either floating or repricing within three months. Since their low points in mid-2021, the effective interest rates paid on the stock of mortgage and business lending have risen by 185bps and 400bps respectively (figure 2.1). Based on current mortgage and swap rates, we expect the average effective interest rate on mortgages to reach 6.1 percent by the end of the year.

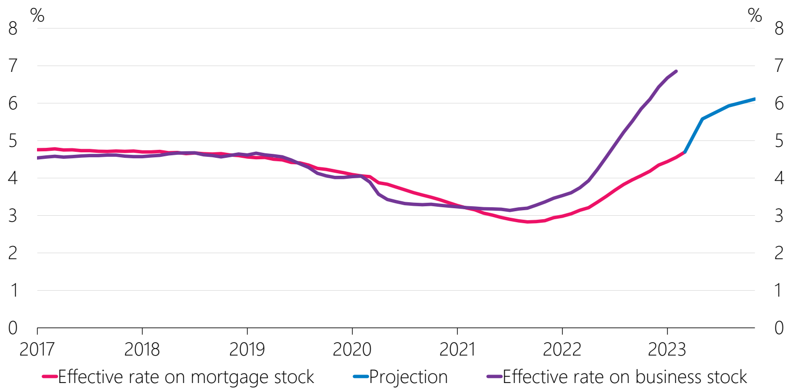
Debt servicing costs are increasing

Household balance sheets remain resilient, with most property-owning households still having substantial equity buffers. This has been due to a combination of the cumulative effects of past LVR restrictions that limited households' leverage and a rise in property valuations that has added to household wealth since 2019, which has yet to fully unwind. Nationally, house prices have returned to around the level in February 2021.

Debt servicing costs have risen significantly from historically low levels during the pandemic. For a household with a mortgage, the share of disposable income required to service the interest component of their mortgage debt will more than double from its recent low of 9 percent to around 22 percent by the end of this year (figure 1.2). Despite the significant rise, this would still be lower than the peak experienced in mid-2008. However, this increased debt servicing burden is distributed highly unevenly, with some borrowers, such as those who fixed at the low of mortgage rates in mid-2021, seeing far greater rises in their debt servicing costs than others.

Figure 2.1

Effective lending rates



Source: RBNZ *Bank Balance Sheet survey*, *Income Statement survey*, RBNZ estimates.

Note: The effective interest rate is the average interest rate paid across the stock of all mortgage lending and all business lending. This projection is based on current mortgage and swap rates as at the 27th of April.

For businesses, whose lending reprices faster than households on average, much of the increase in debt servicing costs has already occurred. Most businesses have been able to absorb the increases in debt servicing costs because of deleveraging over recent years and strong economic conditions.

Highly leveraged borrowers are the most at risk of significant debt servicing stress

Although increasing debt servicing costs alongside high inflation will constrain mortgaged households' budgets, we expect most borrowers will be able to continue to service their debt obligations without significant stress, given the servicing test buffers that banks have applied when assessing borrowers' loan affordability and the current strength in the labour market.

However, for households that borrowed during the period of very low interest rates between late 2020 and late 2021, current interest rates exceed some of the test rates used by banks during this period (figure 2.2). Therefore, some of these borrowers and other borrowers with high debt-to-income levels may begin to struggle to meet their repayment obligations as they reprice onto the higher rates. Around 25 percent of the current stock of mortgage lending was originated during 2021, with about a fifth of this being to first home buyers.

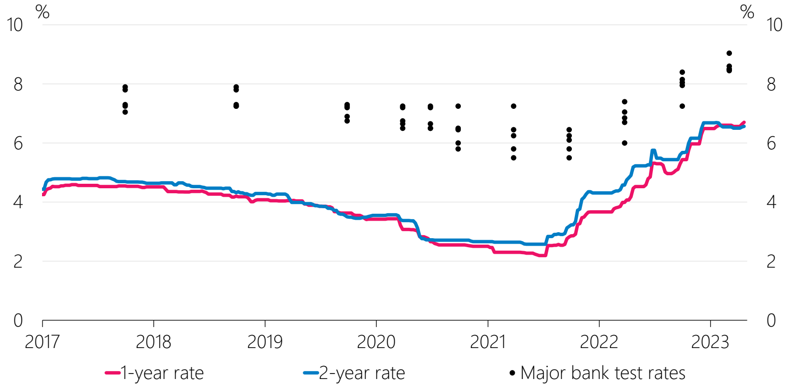
Two factors will lessen the degree of stress this repricing might cause. Firstly, affordability test rates are used to determine the maximum loan amounts that applicants can afford, and many borrowers borrow less than this amount. Secondly, nominal household incomes have grown strongly in the past two years.

Indicators of debt servicing stress are beginning to rise

Early-stage arrears (missed payments by a borrower of one to three months) have been increasing in recent months, and are currently back to where they were before the pandemic (figure 2.3). Compared to the Global Financial Crisis, these indicators so far remain low. Rates of non-performing mortgages and the number of mortgagee sales are also low albeit growing.

Figure 2.2

Mortgage serviceability test rates, compared to actual rates

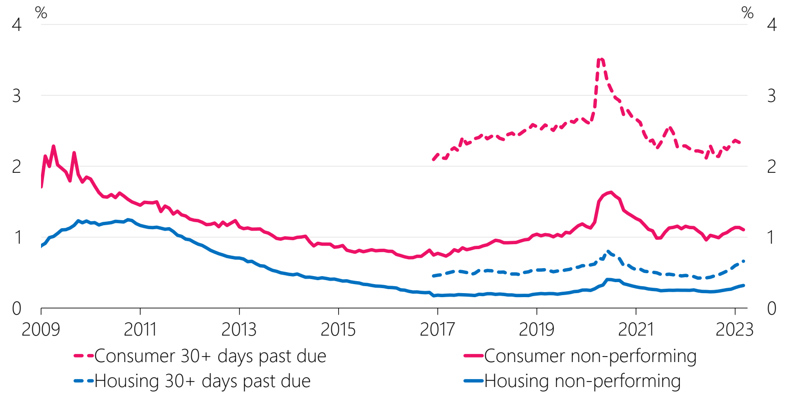


Source: RBNZ *Credit Conditions survey*, *Retail Interest Rates survey*.

Figure 2.3

Mortgage and consumer lending in arrears or non-performing

(seasonally adjusted)



Source: RBNZ *Bank Balance Sheet survey*.

Evidence from previous debt servicing distress periods shows that households with multiple forms of debt generally try to prioritise mortgage and utility bill payments. Data provided by Centrix has shown that those with multiple forms of debt including a mortgage are increasingly missing payments on non-mortgage debts.

When encountering stress, a borrower may be able to move onto a hardship programme at their bank. This could involve temporarily switching to interest-only payments or increasing the remaining term of the loan.

Banks have been proactively identifying borrowers who may face debt servicing challenges as they reprice to higher interest rates. So far they have reported relatively low numbers of customers encountering difficulties in meeting higher repayments. In part, this reflects the fact that many borrowers used the period of lower interest rates to make excess principal repayments ahead of their original schedules. These borrowers can now use this buffer to limit the rises in their repayments due to higher interest rates.

High interest rates and worsening economic conditions are expected to cause an increase in stressed business lending

Among businesses, the commercial property and agriculture sectors are relatively more leveraged, meaning they are more exposed to higher debt servicing costs on average. Debt in these sectors tends to be secured against property. This initially allows them to borrow more relative to their incomes, but also makes them more vulnerable to changes in interest rates and housing market conditions. Within the commercial property sector, falling land values and high debt servicing costs have put developers with large land commitments at risk of defaulting.

In the agriculture sector, falling dairy prices over the last six months alongside increasing farm input costs, such as those of fuel, fertilisers, and labour, are putting pressure on profit margins. Fonterra is now projecting a reduced midpoint price of $8.30 per kilogram of milk solids (kgMS) this season, driven by the slowing global demand, particularly from the Chinese market.

Another significant concern for the dairy sector is increasing debt servicing costs. At an aggregate level, average interest costs per unit of production increased to $1.20 per kgMS from $0.50 per kgMS in mid-2021 (figure 2.4). Narrowing margins from rising costs and falling international dairy prices have led to more requests from farmers for working capital and overdrafts to meet short-term cashflow needs.

In the commercial property sector, capital values have started falling across property types, particularly for retail, but we expect further declines as values adjust to high interest rates and lower demand, for example due to increases in people working from home. Liquidity and credit demand in commercial property markets has been low. Higher interest rates and a poor outlook for the sector have contributed to an increase of 10 percentage points in closely monitored lending, from a low level since mid-2021.[5]

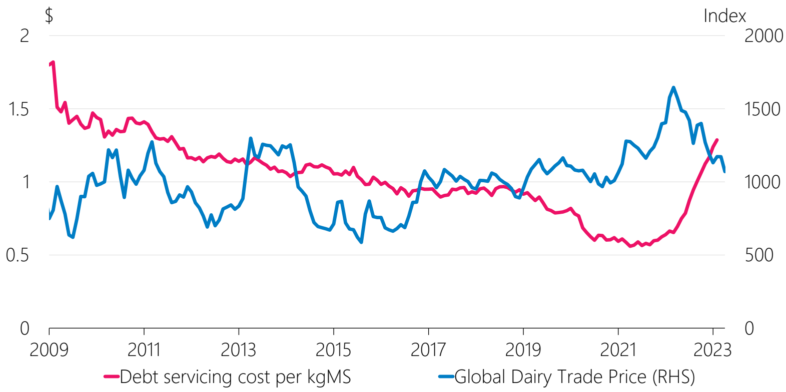
The capital value of Auckland prime retail property declined 16 percent over 2022.

The lower end of the retail and office markets would come under significant stress during an economic downturn, causing widespread vacancies.

Property operators' interest coverage ratios have already fallen with high interest rates. This has reduced the buffer available to deal with tenant stress and still meet debt servicing requirements. Banks are generally willing to work with stressed customers, looking at where property sales can be made to reduce debt, and where discretionary spending can be reduced to improve borrowers' ability to service debt. Banks have also indicated a willingness to renegotiate interest servicing covenants in their lending terms.

Figure 2.4

Dairy price index and interest servicing cost per kgMS of production



Source: RBNZ *Bank Balance Sheet survey*, *Income Statement survey*, registered banks' *Disclosure Statements*, private reporting, DCANZ, RBNZ estimates.

5 Closely monitored lending is all loans and advances reported to banks' management internally as warranting closer monitoring because of potential or actual deterioration in credit worthiness of the counter-party. This would also include all potentially stressed, 90+ days past due, and impaired loans.

In general, there has been a deterioration in business performance across most sectors. However, banks have maintained conservative lending standards in recent years and businesses appear to be adjusting to higher debt servicing costs without significant increases in loan arrears so far. No industry is showing a marked increase in debt servicing stress, including those most disrupted by the pandemic (figure 2.5). Banks have reported that businesses that survived the pandemic are generally quite resilient.

The financial system is well positioned to support the economy as debt servicing strains increase

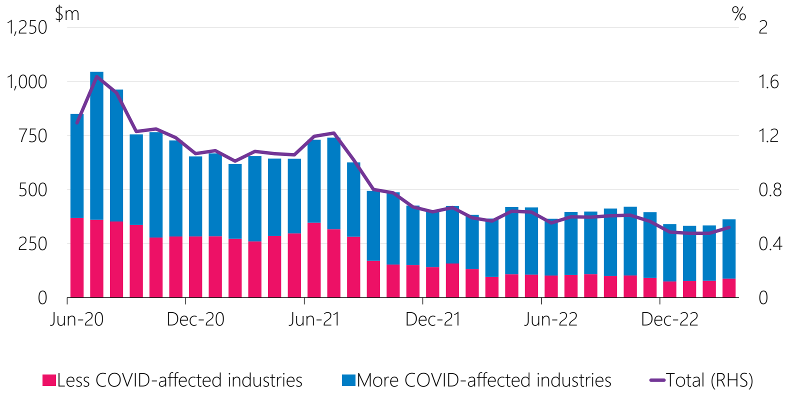
While we are not currently seeing widespread financial distress amongst households or businesses, in part this reflects the fact that the repricing of the stock of mortgage lending will take some time. Households are also adapting by reducing discretionary spending and drawing on savings, including working with their banks to extend the durations of their mortgages where they are ahead of their repayment schedules. Furthermore, the lack of acute stress showing up in banks' lending portfolios reflects the strength in the economy and labour market to date.

However, we expect more borrowers to fall behind on their payments this year, given the ongoing repricing of mortgages and expected weakening in the labour market. New Zealand's banking system remains resilient to a range of downturn scenarios, as demonstrated by our regular stress tests of their solvency and liquidity positions.

Figure 2.5

Industry breakdown of business sector lending in arrears

(30+ days past due or impaired loans, excluding agriculture and commercial real estate)



Source: *RBNZ Bank Balance Sheet survey.*

Note: 'More COVID-affected industries' include construction, wholesale and retail trade, accommodation and food services, transport and storage, education and training, health and community services, culture and recreation, and personal services. 'Less COVID-affected industries' include mining, manufacturing, utilities, communications, professional, administrative and support services.

2 Financial stability implications of recent North Island weather events

The extreme weather events earlier this year caused significant damage to a large part of the North Island. In late January, Auckland experienced very heavy rainfall, which led to extensive flooding across the city. This was followed in mid-February by Cyclone Gabrielle, which caused more widespread severe damage to parts of the North Island. In this special topic we examine the impacts of the weather events on financial system stability.

As noted in the February 2023 *Monetary Policy Statement* (MPS), the weather events resulted in significant economic disruption.[6] The size of the economic impacts is still uncertain; and we continue to monitor the situation and reassess our estimates. These weather events occurred at a time when labour and other resources in the economy were already scarce. Existing capacity constraints may mean these storms are more inflationary than previous natural disasters and it may take longer for recovery work to take place. Our analysis has suggested that the near-term inflationary impact of these events is likely to be larger than the additional 0.3 percentage points on Consumers Price Index headline inflation in each of the March and June 2023 quarters assumed at the time of the February MPS.

Over the medium term, rebuild activity is likely to provide upside risks to inflation and employment when we would otherwise expect an easing in capacity pressures. It is likely that the total additional activity from the severe weather events will be above our 1 percent annual GDP (gross domestic product) assumption at the time of the February MPS.

In addition to their economic impacts, the weather events affected several parts of the financial system, notably by:

- causing payments systems disruption;
- triggering insurance claims for damage; and
- creating difficulties for borrowers' ability to service debts in affected regions.

While the weather events caused significant economic disruption and hardship for the households and businesses affected, they do not appear to have created substantial risks to financial system stability.

Payment systems disruption

Cyclone Gabrielle caused extensive damage to payments-enabling infrastructure in affected areas, which meant that electronic payment systems such as EFTPOS were unavailable for several days. As a result, there were localised increases in demand for cash as the only viable means of payment. However, ATMs were generally inaccessible, offline or empty. Many bank branches in the affected areas were unable to open. The physical movement of cash into and out of the areas by road was impractical or impossible, resulting in added pressure on the local cash system and its users (including retailers).

The Reserve Bank collaborated with cash industry participants and other government agencies, including the National Emergency Management Agency, New Zealand Police and the New Zealand Defence Force to facilitate the movement of cash into and out of the affected regions. We also provided daily public updates on ATM availability, advice on accessing banking services and information on the safe handling of contaminated cash (including with geographically-targeted social media messaging).

Banking services and independent ATM operators are now mostly back to offering regular services in the affected regions, with the exception of Tairāwhiti, where coastal settlements still have road access problems. The cash-in-transit industry is still working hard and at extra cost to maintain services due to the damaged road network.

6 See Box A in the February *Monetary Policy Statement*

The disruptions to the cash industry caused by Cyclone Gabrielle have highlighted the lack of resilience in the cash system and its vulnerability to power, data, and road network outages, particularly due to banks reducing branch and ATM networks and retreating from offering in-branch cash services for retailers. Given the increased likelihood of extreme weather events in the future as a result of climate change, this lack of resilience in the cash sector will need to be addressed. This will be an increased focus in our prudential supervisory engagement, as well as a consideration in cash system redesign work under our Future of Money – Te Moni Anamata programme.

Insurance impacts

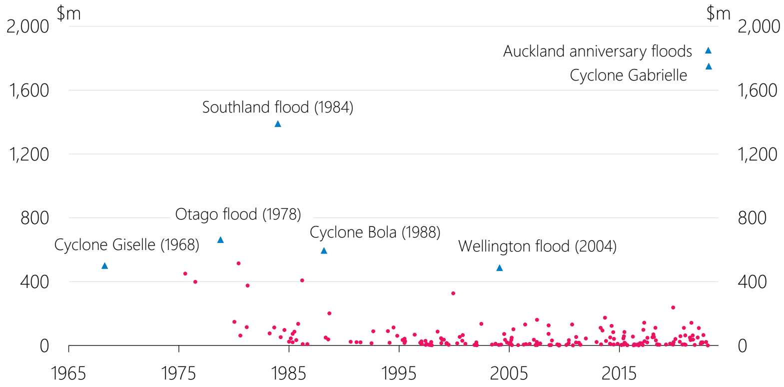
Insurance companies play an important role in helping households and businesses deal with natural disasters by pooling risks. We estimate that the total claims cost for private insurance (i.e. excluding Toka Tū Ake EQC) will be around $1.6-$2.1 billion from the Auckland Anniversary flooding and a further $1.4-$2.1 billion from the effects of Cyclone Gabrielle. In addition there will be considerable claims for Toka Tū Ake EQC. Most infrastructure has no or limited insurance cover, and costs to repair infrastructure damage will largely fall to central and local government, and ultimately taxpayers and ratepayers.

Even in exposure-adjusted terms (that is, adjusting for growth in sums insured),[7] the recent floods and cyclone have higher insurance claim costs than any previous New Zealand weather events (figure 2.6). Furthermore, having two very expensive weather events in quick succession was unprecedented in New Zealand. The combined total claims cost of the Auckland floods and Cyclone Gabrielle are slightly higher than that of the Kaikōura earthquake, but are still much lower than that of the Canterbury earthquakes of around $27 billion (excluding Toka Tū Ake EQC).[8]

Figure 2.6

Total value of weather event insurance claims

(excluding EQC payments)



Source: ICNZ, RBNZ estimates.

Note: The values of claims are exposure adjusted by deflating the nominal value of claims for each weather event by the value of the housing stock at the time of each event. This enables comparison of the level of claims at different times. The points for the Auckland Anniversary floods and Cyclone Gabrielle are the midpoints of the RBNZ's estimated ranges.

Property insurers will in aggregate record a loss in the current financial year. Claim costs net of reinsurance for the two recent weather events, plus additional reinsurance premiums, have exceeded normal profits. In addition, insurers have recorded material investment losses from rising interest rates.

While these losses have depressed solvency for the relevant insurers to varying degrees, they are not seen as risks to financial stability.[9] Some insurers have injected additional capital from their parents in response. With weaker solvency, some property insurers are at risk of breaching regulatory solvency requirements if there is a further large event in the next few months.

7 The value of the housing stock is used as a proxy.

8 The total insurance claims of flooding and cyclone weather events are also higher and closer together than events used for the 'severe weather scenario' in the General Insurance Industry Stress Test in 2021. (link)

9 Solvency is having sufficient capital to absorb losses before affecting insurers' obligations to policyholders. The Reserve Bank sets conservative minimum requirements for solvency.

The weather events will lead to higher reinsurance premiums and in turn higher premium costs for policyholders. This is on top of general existing inflationary pressures on premiums (e.g. due to the rising costs of construction) and other expenses. Insurers are considering reducing existing cross-subsidies for flood and landslide risks, and properties in particularly high risk locations could soon become uninsurable. The increased likelihood of extreme weather events as a result of climate change will likely lead to a need for 'managed retreats' from vulnerable areas. Addressing the impacts of managed retreat on the availability of insurance in these areas will require extensive collaboration across central and local government, regulators, the insurance industry, and other affected stakeholders.

Debt servicing impact

Some households and businesses in affected regions will struggle to continue servicing their debt. In many cases their sources of income have been severely disrupted. Some will also face high costs to rebuild and repair damage to their properties as they were under- or uninsured. For example, many horticultural growers in Hawke's Bay are unlikely to have insurance for lost crops and damaged land, so will likely face significant costs to re-establish their businesses.

We have discussed the impacts of the weather events on loan portfolios with the large banks. The banks have not reported any significant increases so far in the number of their borrowers in the affected regions requesting support. As a result, to date the banks have not identified a worsening in their asset quality or the need for additional provisioning for increasing loan defaults. However, banks do expect to see increased losses on mortgage lending and business loans as a result of the weather events in the near future. The scale of these losses is hard to measure at this stage as banks and customers are still evaluating the extent and the cost of damage. Several banks noted that the impacts of the flooding and cyclone on business customers has come at a time when they are already facing pressures from other factors, such as labour shortages and supply chain disruption, which have increased their vulnerability to the weather events. Similarly, mortgage borrowers are facing the impacts of the weather events while debt servicing pressures are increasing as many mortgages are being re-priced onto higher rates.

Large institutions that have diversified customer bases across the country will be able to absorb the impacts of the weather events on asset quality. However, some smaller lenders with lending concentrated in regions affected by the flooding and cyclone may face more challenges in meeting their prudential requirements.

Flooding risk as a result of climate change is likely to be an increasing focus for banks in the future. We recently published the results of flooding risk assessments of the largest banks as part of our stress testing programme.[10] Only a relatively small proportion of banks' value of residential mortgages is exposed to significant sea level rise, albeit with potential areas of geographic concentration risk. In addition, nearly a quarter of the banks' residential mortgage exposures in Auckland would be 'at risk' to a 1-in-100-year rainfall flood event in a 2.1 degree warming scenario. Overall, banks' capital ratios were resilient to the most severe sensitivities in the stress test exercise. However, more work is required on data and modelling across industry and government if we are to better understand and manage these risks.

10 Newman, R, Adams-Kane, J and Nicholls, K "2022 flood risk assessment for residential mortgages", RBNZ Bulletin, March 2023

Table 2.1

Summary of financial sector impacts from the weather events

	Near-term impacts	Long-term impacts / issues
Payments system	• Localised temporary increase for cash demand. • Disruption to cash / EFTPOS access and banking.	• Need to increase / restore resilience in the cash system.
Insurance sector	• High number of insurance claims in response to property damage. • Financial losses and weakened solvency. • Higher reinsurance premiums leading to higher insurance premiums.	• Further increased premiums in locations with high flood or landslide risks. • Particularly high risk locations becoming uninsurable.
Debt servicing	• Little reported impact so far on customers' ability to service loans.	• Banks expect increased losses on loans, but the magnitude is hard to forecast.

3

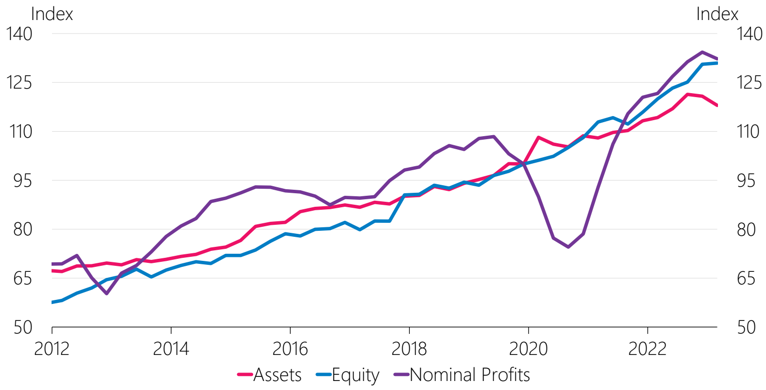
Trends in bank profitability

A profitable banking system is beneficial for financial stability, as it enables banks to generate or attract the capital base needed to absorb potential losses over economic cycles. At the same time, competition between banks has an important role in supporting an efficient, inclusive, and dynamic financial system. In light of this, this special topic analyses recent trends in bank profitability and compares key profitability indicators within the New Zealand banking sector and between banks in peer countries.

In nominal terms, profitability in the New Zealand banking sector fell materially in 2020, as banks increased provisioning for expected losses as a result of the COVID-19 pandemic (figure 2.7). However, nominal profits recovered strongly over 2021 and 2022 alongside growth in the New Zealand economy. In particular, banks' profits were aided by less impairment expenses than was initially expected and higher net interest margins (NIMs) (figure 2.8).[11] Several factors have contributed to the higher NIMs:

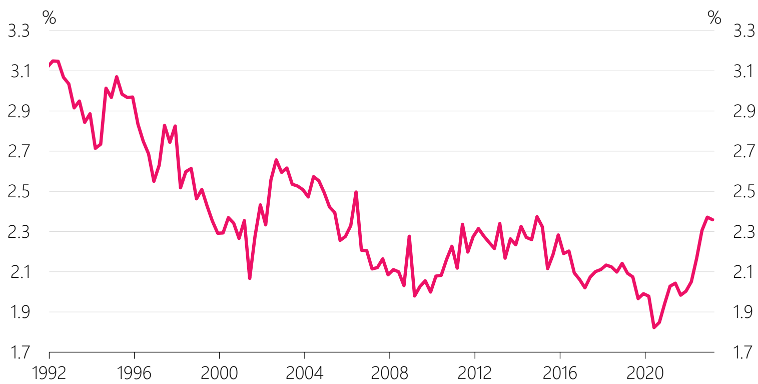
- Deposit growth has been strong, supported by the large monetary and fiscal stimulus introduced at the start of the pandemic. Deposits are a high quality source of funding for meeting banks' core funding requirements, contributing to banks' current strong funding positions (see Chapter 4). Lending growth has also been subdued in recent times. These conditions have reduced the need for banks to use more expensive wholesale funding and to compete for further deposit funding. This has kept deposit rates and, therefore, banks' funding costs lower than otherwise.
- The lags in monetary policy transmission that mean higher interest rates are taking longer to pass through to banks' funding costs. This means NIMs are temporarily higher than otherwise while the economy transitions to higher interest rates. As interest rates have risen considerably faster than they have in previous tightening cycles, this transitory effect has been more pronounced than in the past. In particular, these lags include the following:

Figure 2.7
Banking system profits, equity, and assets



Source: RBNZ *Income Statement survey.*

Figure 2.8
Net interest margin
(quarterly, annualised)



Source: RBNZ *Income Statement survey.*

11 The net interest margin (NIM) is the difference between a bank's interest income and interest expenses, divided by its interest-earning assets (for example, loans to customers) to account for size. Net interest income is the primary component of New Zealand banks' earnings, consequently, the NIM is a useful measure of how effective a bank is at generating income.

- Rates on short-duration deposits, such as transaction and on-call savings accounts, have not increased as quickly as the Official Cash Rate (OCR) and the interest income banks earn on their assets (figure 2.9). Consequently, these deposits have become increasingly profitable sources of funding relative to term deposits or issuing debt in wholesale markets.
- Following heightened uncertainty and low interest rates during the pandemic, the proportion of banks' deposit books in short-duration deposits was above its long-run average at the start of the tightening cycle. While savers are moving back to term deposits as interest rates rise, this transition is lagging the increase in interest rates (figure 2.10). Banks have been comfortable holding more short-duration liabilities than historically due to their strong liquidity positions, holding down their average funding costs.

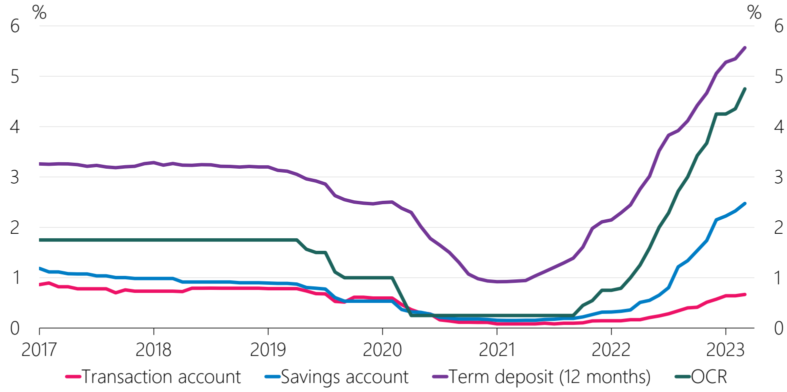
The above factors mean banks have had relatively lower interest costs in the past 18 months, while lending rates and interest income have increased alongside the OCR, supporting a recovery in banks' profits.

However, measuring profitability in nominal terms does not control for variables such as growth in the size of a business over time and inflation. Profitability ratios, such as the return on assets and return on equity, are more robust indicators of performance. Banks' balance sheets have continued to grow since 2020, reflecting growth in the economy (figure 2.7). Their equity bases have been further supported by lower dividend payout ratios, as banks have started to increase capital in anticipation of the higher future capital requirements. As a result, the return on assets and return on equity are at similar levels to those in the decade prior to the pandemic (figure 2.11).

Figure 2.9

Deposit rates

(monthly, annualised)

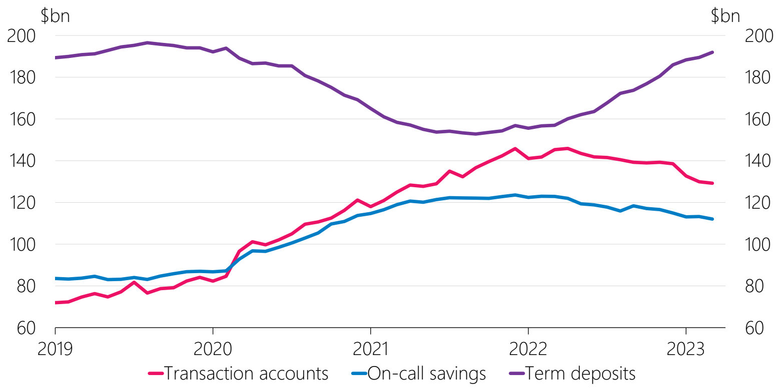


Source: RBNZ *Retail Interest Rate survey*.

Note: Rates are monthly averages, unweighted across banks. Savings account rates are rates on unconditional on-call savings accounts.

Figure 2.10

Deposit composition

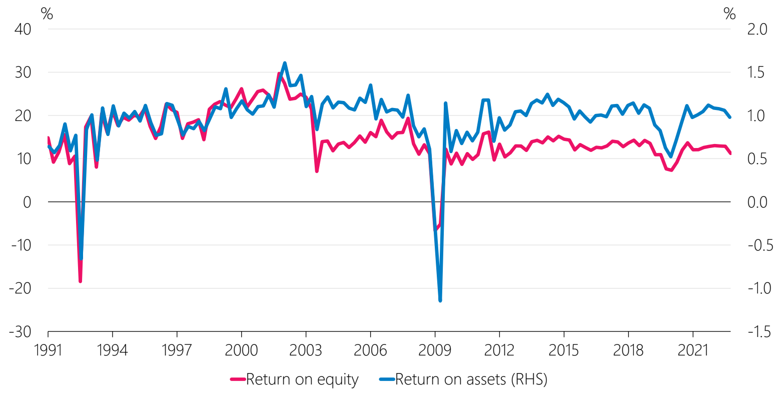


Source: RBNZ *Income Statement survey*.

Figure 2.11

Profitability ratios

(quarterly, annualised)



Source: RBNZ *Income Statement survey*.

While the banking sector as a whole does not appear to be materially more profitable in 2023 compared to the past 30 years, the large New Zealand banks have been more profitable than the rest of the New Zealand banking sector and large banks in a number of comparable economies in recent years (table 2.2).

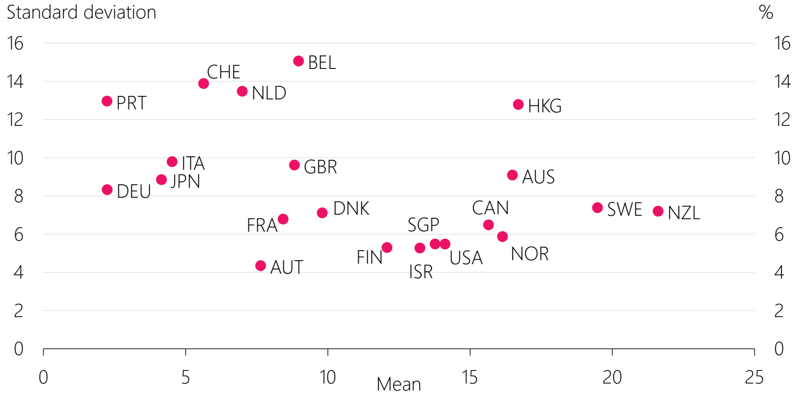
Higher risk associated with operating a bank in New Zealand relative to other countries is a potential driver of high profitability for New Zealand banks. However, the volatility of earnings, a standard measure of risk, has been relatively low in New Zealand compared to other countries in recent decades (figure 2.12). This suggests that risk does not fully explain the relatively higher returns of New Zealand banks, although it should be noted that this has been a period of ongoing economic growth and strong housing market performance.

The differences in risk-adjusted profitability may reflect a lack of competition. However, several other drivers are possible:

- The revenues of New Zealand banks relative to the size of their balance sheets are similar to the peer country average. However, the large New Zealand banks operate lower cost structures than both the small New Zealand banks and large banks in peer countries (table 2.2). The superior cost efficiency of large New Zealand banks relative to the smaller domestic banks is likely to be driven by greater economies of scale within large banks' operations. Furthermore, New Zealand is the only country in the comparison group where all of the large banks are owned by larger overseas parents. This ownership structure is likely to provide further efficiencies and support to the large New Zealand banks, from which much of the rest of the comparison group does not benefit.[12]

Figure 2.12

Mean and standard deviation of pre-tax return on equity across selected countries, 2000-2021



Source: World Bank Global Financial Development database, APRA, registered banks' *Disclosure Statements*, RBNZ calculations.

- The Australian shareholders of the large New Zealand banks may require higher risk-adjusted returns on equity than shareholders of other banks. This is possible due to differences in the tax treatment of returns to shareholders in New Zealand and Australia. In particular, imputation credits received by Australian shareholders on dividends from New Zealand banks are not transferrable to the Australian tax system.[13] In this instance, large banks would be expected to be more profitable than those in the rest of the sector, even in a competitive market.
- The differences in profitability may also be explained by other differences between the operational structure of banks in the comparison group and the regulatory environments in each country. For example, New Zealand banks engage in relatively little investment banking and funds management compared to some banks in peer countries. Investment banking generates significant revenue for these banks, but also contributes to higher cost ratios.

12 Understanding financial system efficiency in New Zealand (Bloor & Hunt, 2011)

13 Australian shareholders receive imputation credits with dividends from Australian banks, which reduces their tax burden and increases their after-tax return. However, the imputation credits received on dividends from New Zealand banks are not transferrable to the Australian system. Hence, Australian shareholders in banks with New Zealand operations require a higher return on equity from the New Zealand operations to receive the same after-tax return as the return on Australian operations.

The benefits of profitable banks are particularly evident in the current environment, with New Zealand banks in strong positions to manage increasing stress in their lending books and a deterioration in global economic conditions. Importantly, profitability allows banks to support their customers by taking a long-term view in times of stress. It also enables the necessary investment in systems to improve efficiency and operational resilience. Therefore, profitability puts banks in a position to earn their social licence by contributing to a sound, efficient, inclusive, and dynamic financial system.

Table 2.2

Profitability of banks in New Zealand and selected large banks in peer countries[1]

(Figures are 5-year averages over 2018-2022)

Country (number of banks)	Return on equity =	(Total income –	Total expenses) x	Leverage multiplier
	Net profit / CET 1 %	Net interest + other income / Exposure %	Expenses + tax / Exposure %	Exposure / CET 1 times
New Zealand large (4)	**15.28**	**2.09**	**1.21**	**17.4**
New Zealand small (5)	**7.35**	**2.07**	**1.66**	**17.6**
Canada (4)	19.59	2.72	1.91	24.4
Norway (3)	13.91	2.05	1.12	15.1
Singapore (3)	13.66	2.11	1.20	15.0
Australia large (4)	12.87	1.94	1.33	21.0
Sweden (4)	12.75	1.68	1.08	21.4
Australia small (3)	10.28	2.00	1.49	20.3
Switzerland (4)	8.30	2.88	2.53	23.4
Netherlands (4)	8.28	1.75	1.36	21.4
Denmark (4)	7.03	1.21	0.91	22.7
Ireland (4)	4.82	2.33	1.99	14.1
Peer country average (37)	**11.25**	**2.08**	**1.49**	**19.8**

Source: Banks' financial statements, RBNZ calculations. Country averages are exposure-weighted, while peer averages (last row in table) are the unweighted mean of countries.

1 Table 2.2 measures balance sheet size using the "exposure measure", which is the non-risk weighted amount capturing both on and off balance sheet credit exposures used in the Basel III leverage ratio. This exposure measure is more consistently calculated across banks and countries than risk-weighted measures. As we do not have an exposure measure, for New Zealand banks we proxy the exposure measure with credit EAD (IRB banks) and total credit exposure (on and off balance sheet) (Standardised banks). Equity is measured using banks' Common Equity Tier 1 (CET1), rather than the value of total equity (shareholders' funds) as CET1 is a more consistent and comparable measure of equity for the purposes of profitability comparisons across banks and countries.

Box B

The relationship between financial inclusion and financial stability

Our regulatory functions aim to protect and promote the stability of New Zealand's financial system. In doing so we must have regard to factors set out in the Financial Policy Remit, including financial inclusion.[14] This Box explores the relationship between financial stability and inclusion, what we can learn from other central banks, and next steps for us.

Inclusion initiatives by central banks

Central banks around the world, including us, continue to contribute to inclusion through various initiatives. These include delivering inclusive payment systems, factoring inclusion into regulatory settings, collaborating with public and private networks, delivering financial literacy programmes, and undertaking research to fill evidence gaps.[15] However, central banks are mindful of the implications of improving inclusion, including those relating to stability.

The relationship between inclusion and stability

Inclusion and stability are interconnected. A well-functioning financial system with a low probability of insurers and deposit takers getting into trouble increases the likelihood that people can access, and have trust in, the products and services they rely on.[16] In an unstable environment, entities could collapse and credit access could be limited, reducing options for customers. Similarly, keeping inflation low and predictable promotes a more stable economy, reduces future uncertainty, and provides more opportunities for everyone to participate.

Inclusion can also contribute to stability. Since 2016, for instance, the nine largest providers of banking services in the United Kingdom have been legally required to offer basic bank accounts, which has contributed to inclusion and acted as a stepping stone for people to access further banking services.[17] Reducing the unbanked population helps grow the balance sheet of the formal financial sector, and broadens the base of low-income savers and borrowers who often maintain steady depositing habits.[18] In addition, inclusion efforts to increase lending to smaller firms can help to diversify asset portfolios and reduce the relative size of any single borrower.

A review of 2,600 banks in 86 countries in 2004-2012 found that a higher level of inclusion contributes to greater bank stability, particularly in countries with strong institutions and sound regulatory settings.[19]

However, ambiguity remains in the empirical literature around the relative strength and direction of causation between inclusion and stability. There are instances where increasing inclusion can have negative impacts on stability; for example, extending access to credit for marginal borrowers could result in financial institutions taking on a greater degree of risk as seen during the subprime mortgage crisis in the United States.[20] The Bank for International Settlements has found that, in India, providers such as micro-finance institutions and regional rural banks that are geared to meet the needs of their regions and under-served communities can face greater challenges with connected lending, poor governance and geographic concentration, increasing their exposure to downturns and natural disasters.[21] In New Zealand, the collapse of finance companies such as South Canterbury Finance in 2009 highlights how institutions that support inclusion in their communities (e.g. through small business financing) can also pose risks to stability if lending standards are undermined.[22]

14 The World Bank defines financial inclusion as "when individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way".

15 National Financial Inclusion Strategies: Current State of Practice (2022) | Alliance for Financial Inclusion (afi-global.org); Morgan, P. (2021). Central banks and financial inclusion.

16 IFC Report on measures of financial inclusion – a central bank perspective (bis.org)

17 Financial_Inclusion_Report__002_.pdf (publishing.service.gov.uk)

18 H R Khan: Financial inclusion and financial stability: are they two sides of the same coin? (bis.org)

19 Is financial inclusion good for bank stability International evidence SRO-version.pdf (sussex.ac.uk)

20 The Nexus of financial inclusion and stability: Implications for holistic financial policy-making (worldbank.org)

21 H R Khan: Financial inclusion and financial stability: are they two sides of the same coin? (bis.org)

22 House of Representatives. (2011). Inquiry into finance company failures. New Zealand Parliament.

Three important factors to consider when optimising inclusion and stability are the types of products and services affected, the size and scale of affected groups, and whether inclusion efforts could lead to a reduction in lending standards.

Considerations for the Reserve Bank

There are areas in which we can deliver positive outcomes for stability and inclusion. Under the new Deposit Takers Bill, we will think carefully about creating rules that are appropriate to the characteristics and soundness of deposit-taking entities (see Chapter 3). The extent to which certain deposit takers provide access to financial services for specific customers could be a relevant factor in how a proportionate approach is applied in the calibration of prudential requirements.

We also have regard to inclusion and stability in our work to improve Māori access to capital. The issues paper we developed in 2022 highlighted barriers that Māori firms face when seeking finance, which undermine inclusion and constrain the growth and diversity of our economy.[23] We are now working collaboratively with retail banks to support the development of solutions for:

- lending on whenua Māori, which has the potential to improve access to capital for Māori landowners and collectives; and
- data related to Māori access to capital, which could be a first step in financial inclusion indicators that sit alongside financial stability measures.

We will continue to explore the connections between inclusion and stability as we develop our inaugural Financial Inclusion Strategy. We will also continue to collaborate and co-ordinate efforts with external stakeholders including the Council of Financial Regulators (CoFR), for which financial inclusion is one of five priority themes.

23 Improved Maori Access to Capital Issues Paper (rbnz.govt.nz)

Regulatory developments

CHAPTER 03

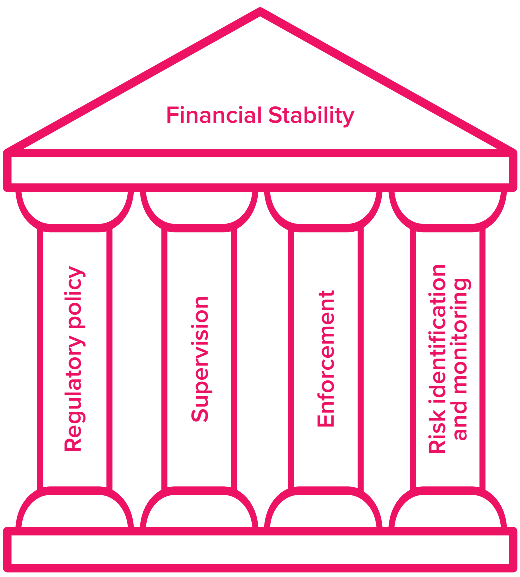
Hauraki Gulf. Photo: Conor Steffey

CHAPTER 3
Regulatory developments

We continue to consolidate and deliver on key policy initiatives that will protect and promote financial stability. We have prioritised work on major legislative reforms and other key initiatives as set out in the November 2022 *Report*. We also continue to expand and build capacity as we become a more intensive prudential supervisor.

We continue to evolve to meet growing expectations tied to our role as New Zealand's prudential regulator, following the International Monetary Fund's Financial Sector Assessment Program review in 2017.[24] In line with these expectations, we are continuing our major legislative reform programme that will underpin a more intensive approach to supervision.

This chapter provides an update on the key work streams to support financial stability, with a particular focus on the Deposit Takers Bill and the next steps to move to this significant new regulatory regime. This work is important in enabling a healthy and resilient financial system, given the important role that deposit taking institutions play in our economy as credit intermediaries.



Our financial stability objective

We have a large, but focused, work programme underway across regulatory policy, supervision, enforcement, and resolution, to further our financial stability objective, with a view to promoting the prosperity and well-being of New Zealanders and contributing to a sustainable and productive economy.

Alongside this work we have been focused on greater collaboration with other regulators through the Council of Financial Regulators (CoFR). One outcome of this work has been the enhanced Regulatory Initiatives Calendar, which was developed in response to industry feedback on the need for greater clarity on the collective work programme for CoFR agencies over a longer time horizon.

Risk identification and monitoring

We are continuing to identify, monitor, and report on key risks to financial stability. We assess risks and resilience through our monitoring of the financial system, thematic reviews, and analysis, including our stress testing programme and review of macroprudential settings. The *Financial Stability Report* outlines our current assessment of the state of and risks to financial stability and of the resilience of the financial system. We also have an emerging risk framework to identify upcoming areas of risk, such as climate change and cyber security.

24 International Monetary Fund (2017), New Zealand: Financial Sector Assessment Program: Financial System Stability Assessment, May 8.

These are important inputs to prioritise our supervisory and regulatory work programmes, making sure the monitoring of individual institutions covers important cross-sectional risks between financial institutions, how risks may evolve over the financial cycle, the feedback loops between the financial system and the economy, and the early detection of and preparation for exogenous shocks affecting financial stability.

Regulatory policy

Our approach to the current regulatory agenda has been to continue to consolidate and deliver on key legislative reforms and other high-priority work programmes to achieve our financial stability objective.

- **The Deposit Takers Bill** was introduced to Parliament in September 2022, with the select committee reporting back in April 2023.[25] The Bill is the final phase of the review of the Reserve Bank of New Zealand Act 1989, which establishes a single framework for the regulation and supervision of financial firms that take 'deposits' (as defined in the Bill) and lend to households and businesses. The Bill also introduces a Depositor Compensation Scheme (DCS) to protect deposits up to $100,000 per depositor, per institution.

  We will continue to support the passage of the Bill through the Parliamentary process and will start consultation on the implementation of key aspects of the Bill, in particular the DCS and our approach to tailoring regulatory requirements to reflect the diversity of the deposit taking sector (i.e. embedding a proportionate approach to standards – see Box C).

- **The review of policy for branches of overseas banks** has progressed. We are currently reviewing feedback from the second consultation paper, and plan to communicate policy decisions later in 2023. This will allow an implementation timeline for existing branches that is compatible with the introduction of the DCS and the issuance of standards under the Deposit Takers Bill.

  The objective of the review is to create a simple, coherent, and transparent policy framework for branches that promotes financial stability.

- **The Financial Market Infrastructures Act (FMI Act)** continues to be implemented. We have been processing feedback from public consultation on an exposure draft of a full suite of standards for designated FMIs. Work is also progressing on re-designating five FMIs that are currently designated under the Banking (Prudential Supervision) Act 1989.

  The FMI Act established an enhanced regulatory framework for financial market infrastructures. We are undertaking the work alongside the Financial Markets Authority (FMA), as joint regulators.

- **The Insurance (Prudential Supervision) Act (IPSA)** continues to be reviewed, with an omnibus consultation to be published in the middle of 2023 setting out a full set of proposals for amending IPSA. To date, we have conducted four topic-specific consultations.

  This review is being undertaken to ensure the legislation is fit for purpose to underpin the more proactive and intensive approach to supervision we are adopting as part of our transformation into a modern prudential regulator.

- **The debt-to-income (DTI) framework** for residential mortgage lending was published in April.[26] The objective of the framework is to help maintain financial stability by providing the Reserve Bank with the practical means of imposing DTI restrictions on residential mortgage lending by registered banks. DTI restrictions target a different dimension of risk that the housing market can create to financial stability (the probability of default) to LVR restrictions, which are focused on financial loss in case of mortgage default. They are complementary tools.

25 https://selectcommittees.parliament.nz/v/SelectCommitteeReport/4951ebe6-c883-4cbd-d33a-08db3a0449c0

26 https://www.rbnz.govt.nz/hub/news/2023/04/reserve-bank-releases-debt-to-income-framework

Banks will have until April 2024 to make system changes to be ready should the Reserve Bank decide to activate these restrictions. Our view is that this timeline does not present a risk to financial stability.

- **The liquidity policy review** second consultation paper was released in February 2023. It focuses on a number of fundamental issues, including whether we should adopt the quantitative liquidity standards used internationally (the Basel Committee's Liquidity Coverage Ratio and the Net Stable Funding Ratio), the eligibility criteria for liquid assets, and how liquidity requirements should be applied across deposit takers in a proportionate manner.

  The purpose of this review is to ensure that the policy remains fit for purpose to promote financial stability. At this time we expect the entire review to conclude with a final liquidity policy in late 2025 or early 2026.

- **The capital review implementation work** continues, with four consultations currently underway on topics related to bank capital, including reporting modelled and standardised equivalent risk weighted assets (RWAs) for credit risk (dual reporting), capital instruments for mutual owned banks, clarifications to the RWA framework, and connected exposures.

  We are also continuing to implement the changes announced in December 2019, with the second increase in the Prudential Capital Buffer (PCB) to take place on 1 July 2023, when the PCB applying to domestic-systemically important banks (D-SIBs) will increase by another 1 percent of RWAs. Further increases applying to all locally incorporated banks will take place each year until 2028.

- **Cyber risk** has emerged as a significant source of operational risk for financial institutions alongside the ongoing rise of the digital economy. We continue to implement our three step approach to supporting cyber resilience in our regulated entities.

  We will soon release a consultation document seeking feedback on proposals to collect cyber-resilience-related data that will strengthen our understanding of cyber resilience within the financial sector.

  In November 2022 the Trans-Tasman Banking Council[27] endorsed an incident response protocol between New Zealand and Australian financial regulators for our joint response to cyber incidents affecting entities in both countries.

- **Climate-related risk** is another emerging policy area. Building on our climate-related stress testing with banks, in March we published draft guidance for our regulated entities on the management of climate-related risks.[28] We intend the guidance to support entities in improving how they manage climate-related risks, and to help them develop a shared understanding of what is needed.

  We see this as important to achieving our financial stability objective, given the increasing risks posed to our entities by climate change. The guidance is intended to inform and does not impose any enforceable requirements. It will be relevant for all our regulated entities to the extent that climate-related risks are, or will be, material for them.

27 Trans-Tasman cooperation - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz)

28 https://www.rbnz.govt.nz/have-your-say/2023/managing-climate-related-risks

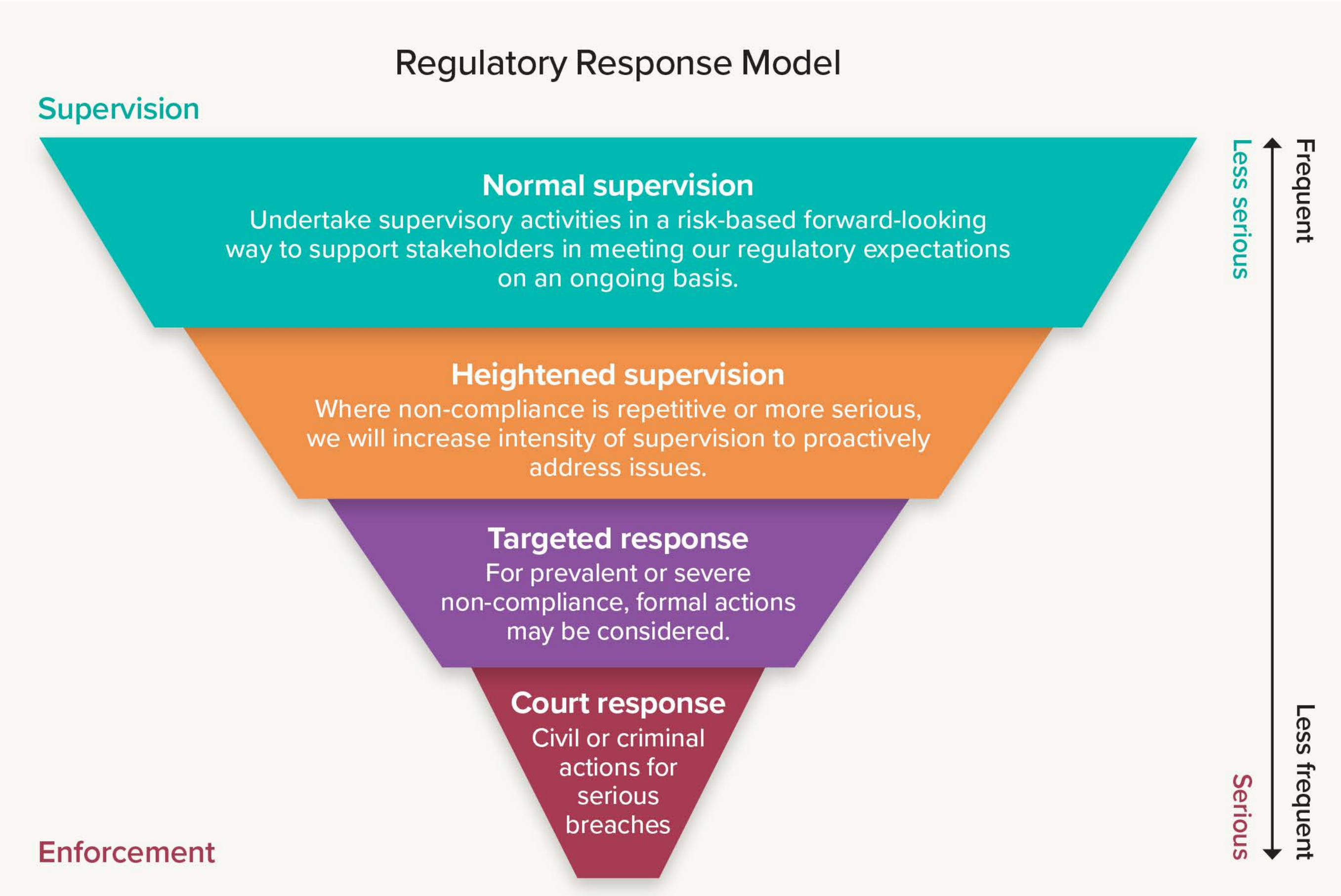
Supervision and enforcement

In the supervision and enforcement space we have been focusing on the following:

- **Reporting requirements for insurers.** We are reviewing and updating insurers' conditions and statutory notices to properly implement the new accounting and Interim Solvency Standards. This will continue until mid-2023 as firms' balance dates roll over.
- **Our risk framework** has been refreshed to enable a comparative, system-wide view of risks across banks, NBDTs and insurers. The framework guides the allocation of our supervisory resources, and facilitates proportionate, rigorous, and thoughtful assessments of risks using a structured and data informed but judgement enabled approach to assessment.

  The refreshed framework will strengthen our consideration of each entity's systemic importance and risk mitigants, and focus our attention on what we see as unacceptable risks. This framework is being implemented over 2023.
- **The Investigation Guidelines and Enforcement Guidelines** were published in January 2023 and completed our Enforcement Framework,[29] along with the earlier published Enforcement Principles and Criteria.[30] The Enforcement Framework provides guidance on how we propose to act when considering and pursuing enforcement matters.

Our regulatory response model gives an overview of the tools we have available in relation to the increasing levels of seriousness of non-compliance by a regulated entity. We will choose the most appropriate tool or combination of tools from anywhere within the model to suit the circumstances.



29 Enforcement - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz)

30 https://www.rbnz.govt.nz/regulation-and-supervision/cross-sector-oversight/enforcement

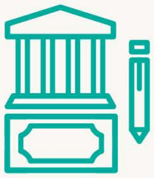
- **Our joint cross-sector thematic review on the governance** with the FMA recently concluded onsite engagements with 29 regulated firms.

  The review seeks to identify governance best-practice and areas for improvement. We expect to publish a joint report with the FMA on overall themes and findings in the third quarter of 2023.

- Additionally, following the **extreme weather events earlier this year**, we have been co-ordinating the CoFR engagement and information requests to the insurance and deposit taking industries. We have used the various CoFR fora to share information and insights from those engagements with our fellow regulators and the Treasury.

Priorities for the coming year

Over the next year we will continue to review existing, and implement new policy and legislation that support our financial stability objective. With the expected implementation of the Deposit Takers Bill (see Box C) we will also be working to establish our new enforcement and resolution teams and embed the frameworks under which they will operate.



Regulatory Policy

- Implementation of the Deposit Takers Bill
- IPSA Omnibus Consultation
- FMI Act implementation
- Cyber resilience data
- Capital review
- Liquidity policy review
- Overseas bank branch review
- Stage 2 of insurance solvency review
- Capital review implementation

Enforcement

- Embed, strengthen, and modernise the enforcement function, including the new Enforcement Framework
- Support the implementation of the Deposit Takers Bill
- Investigate incidents of serious non-compliance with our legislation and determine appropriate outcomes

Supervision

- Domestic and global regulatory co-ordination
- Support the implementation of the Deposit Takers Bill

Resolution

- Embed role for the Reserve Bank as the Resolution Authority, with new statutory purposes
- Develop a Statement of Approach to Resolution
- Engage with relevant domestic and international agencies

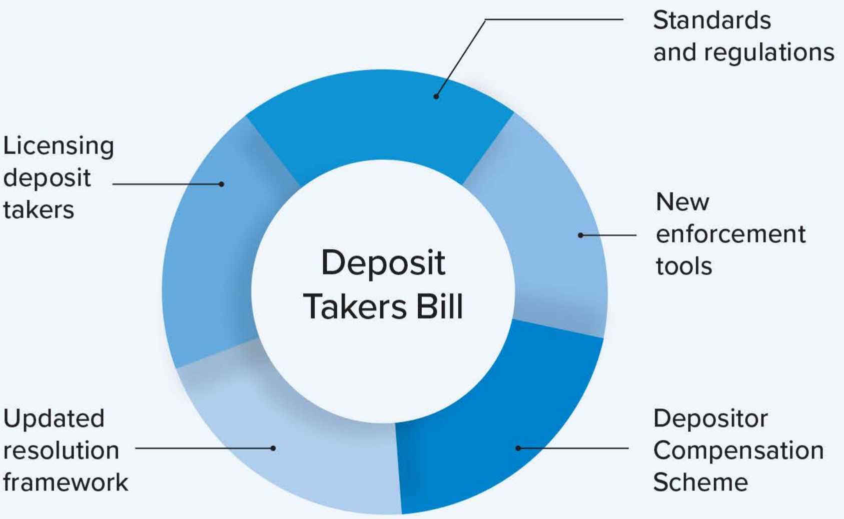
Box C

The Deposit Takers Bill

The Deposit Takers Bill will replace the existing prudential regulatory regime contained in the Banking (Prudential Supervision) Act 1989 and the Non-bank Deposit Takers Act 2013. The integration of these previously separate regimes will create a single, consistent framework for the regulation and supervision of financial institutions that essentially engage in the same activity – the business of taking 'deposits' from the public, and lending to individuals, households, and businesses. This will be a major change to the way we work as the prudential regulator and for industry.

We plan to consult extensively during the implementation period. Details of the planned consultations can be found in the CoFR Regulatory Initiatives Calendar.[31]

The key areas of focus for the Reserve Bank in implementing the Bill are:



New prudential standards for deposit takers and the proportionality framework

The Deposit Takers Bill will modernise and enhance the prudential regulation of deposit-taking institutions. Prudential standards are the primary legal mechanism by which prudential requirements will be imposed on deposit takers. Standards aim to ensure that risks to the soundness of deposit takers and the financial system are appropriately managed.

These standards are secondary legislation and will replace the current conditions of registration model (for banks) and regulations (for NBDTs). The Bill sets out the subject matter of the standards, the procedure for issuing the standards, and a number of decision-making principles to be applied in developing the standards (for example, the desirability of proportionality, competition, and avoiding unnecessary compliance costs).

The development of these standards will be a major feature of our prudential policy work programme in the coming years, and will be subject to several rounds of public consultation. There will be an intensive process to translate the respective bank and NBDT rulebooks to standards, in order to have the rules ready to relicense existing deposit takers under the new legislation (and to license any new applicants).

In most areas, we are not envisaging a fundamental redesign of all our existing rules for banks that are already subject to regulation by the Reserve Bank, but there will be areas where our rules need to be updated to reflect the new law, and opportunities to clarify and simplify the rules in some instances. For NBDTs, the existing rules to which they are subject will also be considered to ensure some degree of consistency across the sector, albeit balanced with taking a proportionate approach (see below). There will be substantial engagement with industry as we develop the new rules. NBDTs are currently supervised by trustees; however, when the Bill is passed the Reserve Bank will assume this responsibility.

A single regulatory regime means that we must design prudential standards and other regulatory tools that have proportionate requirements for the wide spectrum of deposit takers. We do not envisage the prudential rules as being 'one size fits all', and will be thinking carefully about creating rules that are suitable for the size and other characteristics of these entities, while ensuring the soundness of individual deposit takers.

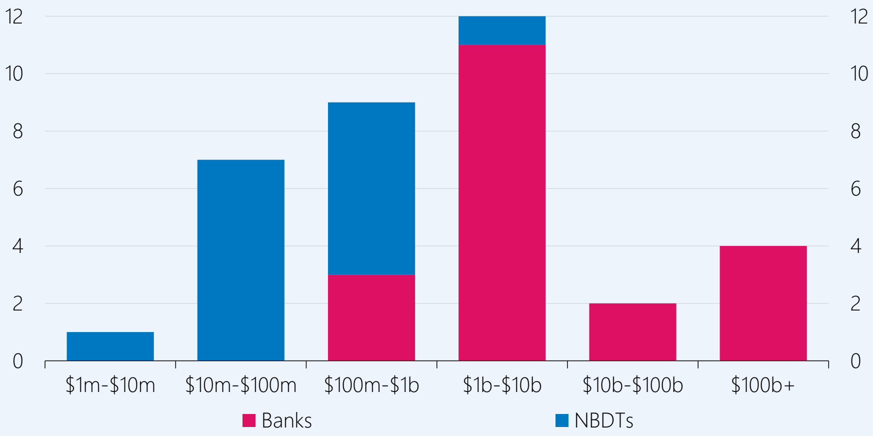
31 Regulatory-initiatives-calendar-q1-2023.pdf (cofr.govt.nz)

Based on current data, NBDTs account for just over $3 billion in assets, out of around $658 billion in total deposit taker assets. Within the NBDT sector itself, there is a wide range of entities, ranging in size from $1 billion to the smallest at $4 million.

Figure C.1

Registered banks and NBDTs by total assets banding

(as at December 2022)



Source: RBNZ *Non-bank Deposit Takers survey, Bank Balance Sheet survey.*

To help facilitate a consistent and transparent approach to proportionality across a wide range of standards, we are developing a proportionality framework. The value of the proportionality framework in the development of new standards is that it can assist in calibration where simpler, but still strong, requirements are warranted.

As indicated in the CoFR Regulatory Initiatives Calendar, we intend to consult on the proportionality framework later this year.

New Depositor Compensation Scheme (DCS)

The DCS will protect deposits up to $100,000 per eligible depositor, per licensed deposit taker. 'Protected deposits', as defined under the Bill, will include New Zealand dollar deposits in transactional accounts, call accounts and savings accounts, and term deposits (and equivalent products) issued by licensed deposit takers.

The DCS is a significant new initiative for New Zealand, and function for the Reserve Bank. There are significant implications for deposit takers as well, including the development of 'single customer view' files to support the accurate identification of depositors eligible for compensation.

The Minister of Finance has indicated his intention for the Scheme to commence operation in late 2024. To support this, the Treasury and Reserve Bank will consult on a range of funding and levy related policies this year.

New resolution framework

The Bill provides an updated crisis management and resolution framework and establishes the Reserve Bank as the Resolution Authority for all licensed deposit takers. The new framework contains additional purposes for the Reserve Bank to pursue in its role of Resolution Authority, and provides for additional protections for creditors, in line with international practice.

Under the Bill, the Reserve Bank will be required to publish a Statement of Approach to Resolution, setting out our expected strategies for dealing with failing deposit takers, and our intended approach to co-operating and engaging with relevant agencies, both domestically and internationally. To support this, the Reserve Bank is currently undertaking policy work to explore optimal resolution strategies for different cohorts of deposit takers. This work will include a further consideration of the potential role for statutory bail-in powers, upon which we are expected to report back to the Minister of Finance within two years of the enactment of the Bill.

Licensing deposit takers

All 'deposit takers' will need to be licensed under the new standards issued under the Bill. There will be a transitional period from the current to the new licensing regime. It is envisaged that 'core standards' (those needed for licensing) will be consulted on first, to allow licensing and re-licensing to commence.

New enforcement tools

The Bill establishes new criminal offences, civil pecuniary penalty liability and infringement offences for the breach of requirements imposed by, or under, provisions contained in the Bill. The enforcement tools in the Bill are designed to provide a range of options that will allow for a proportionate, risk-based, and transparent response. Our Enforcement Framework sets out the considerations that apply when we select matters for investigation, conduct investigations, and ultimately make decisions relating to enforcement matters.

CHAPTER 04

Institutional resilience

Lambton Quay. Photo: Charles Lilly

CHAPTER 4
Institutional resilience

A sound and efficient financial system with the ability to absorb shocks is fundamental to the health of the New Zealand economy. Financial institutions have remained resilient in the past six months. Bank profitability has continued to recover, and capital levels are being increased in preparation for upcoming regulatory requirements. However, banks are anticipating greater pressure on borrower debt serviceability in the coming year, driven by weaker economic conditions and higher interest rates. Positively, the financial system is well placed to withstand higher credit losses and continue to supply credit. New Zealand's major financial market infrastructures continue to exhibit high availability and resilience, with no significant incidents recorded in recent months. The insurance sector remains profitable and its solvency ratios are stable. However, some insurers have been adversely affected by severe weather events and investment losses.

Summary

Banks

Registered banks' capital buffers are comfortably above the minimum regulatory requirement. Capital levels continued to increase in anticipation of higher capital buffer requirements, as the Capital Review decisions are implemented over time.[32] Figure 4.1 shows the scheduled capital requirement increases up to 2028. This means banks are becoming better able to absorb losses during an economic downturn, while continuing to supply credit to the economy.

Discussions with banks point to early signs of emerging serviceability pressure, including among mortgage borrowers and small businesses, but on the whole borrowers have so far been able to continue servicing their debt as their interest rates reprice. Banks' overall asset quality remains strong to date, with non-performing loan ratios near historically low levels. Nevertheless, asset quality may deteriorate going forward, reflecting the anticipated weakening of the labour market and as interest rate repricing continues. Early-stage arrears have started to increase from a low level. Anticipating increasing borrower defaults, banks have begun to increase their levels of collective provisioning. The recent floods and cyclone damage in the upper North Island in early 2023 are expected to further affect credit quality at the margin (see related Special Topic in Chapter 2).

We require banks to maintain core funding ratios (CFR) of at least 75 percent.[33] This means banks are required to fund at least 75 percent of their lending activity with long-term and stable funding, such as retail deposits, long-term debt from wholesale markets, and equity from their shareholders. This regulatory requirement aims to ensure that banks are resilient to disruptions to funding markets or losses of confidence that could otherwise impair their ability to continue providing credit.

The aggregate CFR is currently strong at around 90 percent, reflecting the ongoing high level of deposits in the banking system due to high household savings during the COVID-19 pandemic, and slower credit growth in recent years. Prior to the recent disruptions in the US and European banking sectors, the large New Zealand banks had been actively issuing long-term wholesale debt, in part to pre-position themselves ahead of the repayment of COVID-related programmes, such as the Funding for Lending Programme. Funding markets have become more volatile in recent months. However, New Zealand banks are well positioned to withstand this volatility given their high CFR at present.

Deposits have continued to switch from transaction accounts to term deposits, as savers respond to the growing differential in returns between savings products. The large growth in transaction accounts resulting from COVID-related stimulus had the effect of shortening the average duration of banks' liability profiles, placing downward pressure on their liquidity mismatch positions. However, this was more than offset by the abundance of liquid assets in the banking system as a result of the Reserve Bank's Large Scale Asset Purchase (LSAP) programme (figure 4.4). We anticipate that banks will continue to tilt their deposit portfolios towards term deposits from on-call deposits, to sustain healthy funding positions in the long term.

Banks' net interest margins have expanded in recent quarters, after falling in the early stages of the pandemic (see the related Special Topic in Chapter 2). The share of deposits in transaction accounts with zero or near-zero interest rates remains high for now. Furthermore, the relative cost of transaction account funding has fallen sharply compared to term deposit funding in an environment of rising interest rates. Therefore, the high margins banks are enjoying from the funding side reflect the higher interest rate environment. Higher margins on deposits more than offset a relatively competitive market for new mortgages owing to weak housing demand, in turn bolstering net interest margins.

Measures of profitability have recovered from 2020. Profits have been supported by healthy asset quality and high net interest incomes, which have more than offset an increase in operating expenses amid the high inflation environment. Banks are retaining a large share of this profit to build their capital buffers and resilience. However, the continued switching of deposits into term accounts over time may lead net interest margins to compress, and therefore profitability to pull back over time.

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32 The large fall in the Common Equity Tier 1 (CET1) capital ratio in early 2022 reflects the implementation of a major Capital Review element, the internal rating-based (IRB) output floor that set the risk-weighted assets of IRB banks at no less than 85 percent of the standardised approach. Additionally, the increase in the IRB scalar from 1.06 to 1.2 in October 2022 contributed to a small decline in the CET1 ratio.

33 Banks: Core funding ratio (L2) - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz)

The closure of US-based Silicon Valley Bank (SVB) in March, following a large deposit run, highlighted the importance of prudently managing interest rate risks and deposit funding risks, and how issues at one bank can lead to contagion spillovers. New Zealand banks use hedging instruments and other strategies to manage their interest rate risk. New Zealand banks also have sound deposit funding positions that are less concentrated in large depositors than SVB was. Box B examines interest rate risks in the New Zealand banking system.

Most indicators of bank resilience have improved and compare favorably with their long-term averages, particularly in liquidity and funding positions (figure 4.8). While borrower stress and impairments have started to rise, this is from a low level. Pressure on the banking sector may increase over time as economic conditions are expected to weaken, but banks have built strong buffers to weather shocks. Our regular stress tests of banks' solvency and liquidity positions have shown the sector to be resilient to a range of adverse shocks, including a scenario combining a downturn and high interest rates.

Banks are willing and able to extend credit. However, credit growth has weakened owing to slow demand given the housing market downturn, and some borrowers are finding it difficult to meet lending standards, due to rising interest rates and the changing economic environment. Growth in mortgage lending, corporate lending for capital expenditure, and property development has been subdued.

Cyber risks facing the financial system are becoming more prominent and sophisticated, reflecting the long-run trend of greater digitalisation of banking services. We are encouraging the banking and insurance sectors to build further cyber resilience, including through embedding our published cyber guidance, our monitoring of industry responses to cyber-attacks, and the inclusion of cyber risk in the Reserve Bank's solvency stress tests of banks.

Non-bank deposit takers (NBDTs)

There are 15 NBDTs operating in New Zealand, which include building societies, credit unions, and deposit-taking finance companies.[34] They have diverse business models, asset sizes, geographic concentrations and product mixes. Total lending by NBDTs is around $2.1 billion, compared to $542 billion in lending by banks. While small, parts of the NBDT sector help to serve some customers who may be unable to access the products they need from banks. NBDT capital levels have been generally stable in the past year. Aggregate capital ratios are above their regulatory minimums. Asset quality has been stable, with non-performing loan ratios at their historical averages. However, borrowers may be increasingly challenged by the subdued economic outlook and higher debt servicing costs.

The need to meet changing regulatory requirements can be challenging, particularly for the smaller NBDTs. The regulatory framework for NBDTs will change with the Deposit Takers Bill, which will cover both banks and NBDTs with a single regulatory regime that includes a Deposit Compensation Scheme (see Box C). We are currently developing standards for applying the new regulatory regime to NBDTs of different asset sizes, to ensure regulation remains proportional for small lenders. There will be further consultation opportunities for lenders to engage with us on the detail of the legislation. According to industry contacts, the 2021 amendment to the Credit Contracts and Consumer Finance Act (CCCFA) lending regulations has continued to affect lenders. The CCCFA changes have the objective of protecting consumers from irresponsible lending, although they also have the effect of reducing credit availability.

NBDTs are diverse in terms of asset size, and the lack of economies of scale continues to weigh on profitability for many. This has been a long-standing challenge in parts of the sector, with 10 of the 15 current NBDTs having total lending of less than $100m. Operating costs tend to be high relative to income, and the capacity to raise capital is limited. The business models of individual lenders tend not to be well diversified in terms of geographic exposure and products. These factors contribute to lower resilience in the NBDT sector compared to the banking sector. The sector has consolidated in recent years, particularly for credit unions. Further consolidation and/or changes to the business model may be required. However, the NBDT sector is diverse, with some building societies and finance companies better able to build resilience in the long term.

34 Oversight of non-bank deposit takers - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz)

Insurers

Insurers have a critical role in helping households and businesses with risk management.[35] The start of 2023 saw two severe weather events: the Auckland Anniversary floods and Cyclone Gabrielle (see the related Special Topic in Chapter 2). Since property insurers are required to hold reinsurance for a 1-in-1000 year earthquake, which is much more severe than the recent weather events, most of the insurance claim costs for these events are covered by reinsurance. However, insurer profits will reduce from reinsurance excesses and additional reinsurance premiums to reinstate cover for any future events. Reinsurance premiums at renewal are also likely to be much higher, leading to insurers charging higher premiums to customers (in addition to other increases related to claim cost inflation, etc.).

Insurers are finding the higher interest rate environment increasingly challenging. They experienced $1.1 billion in investment losses in the year to September 2022, due mainly to interest rate rises. In the previous three years, annual investment gains were $0.2 billion to $0.8 billion. However, the impact on profitability is a small reduction in net profit of $0.4 billion, because there are offsetting reductions in technical provisions and tax.

Despite investment losses and the impacts of recent disasters, in aggregate insurers have remained profitable, with net profits of $0.7 billion in the year to September 2022. In the previous three years annual net profits were about $1.1 billion. However, property insurers will in aggregate record losses in the current financial year. For property insurers, claim costs, investment losses, and additional reinsurance premiums have exceeded normal profits. In the year to September 2022 aggregate insurer dividends and capital distributions of $1.3 billion exceeded net profits of $0.7 billion, thus reducing net assets. Solvency ratios were broadly stable in the year to September 2022, albeit with a slight decline for general insurers from September 2021.

Financial market infrastructures (FMIs)

FMIs are the payment systems through which financial transactions are cleared, settled, and/or recorded.[36] Their importance to the stable operation of the financial system makes it crucial that they are reliable, are proactively regulated, and operate with minimum risk. New Zealand's major FMIs continue to exhibit high availability and resilience, with no significant incidents recorded in recent months. Following the Cyclone Gabrielle weather event, there were localised issues with retail payment systems due to data connectivity and power outages, but they had no impact on FMIs nationally.

Significant developments:

ISO 20022[37] New Zealand was the first in the world to open the gateway for SWIFT ISO 20022 MX messaging standards on 20 March 2023, allowing enhanced messaging capability for cross-border payments. The new standards create a common language for global payment messaging, carrying richer data, enabling more detailed and improved structured payment information, and making it easier to detect fraud. Both the new MX and the former MT messaging formats will coexist in the Exchange Settlement Account System until the global rollout of ISO 20022 is completed in 2025, when all financial institutions will have to have adopted the new standards. The successful implementation of ISO 20022 messaging is of high importance for the New Zealand financial system, enabling efficiencies, increasing stability, and providing an enhanced customer experience both in New Zealand and globally in the long run.

SBI 365[38] is another major industry project currently underway to establish the ability for banks to transfer and settle domestic payments 365 days per year; it is scheduled to go live on 26 May 2023. This initiative is being led by Payments NZ, and will enable New Zealand individuals and businesses to make and receive electronic transactions for goods and services with same-day settlement, not only during the traditional five-day business week but also on weekends and public holidays. The faster settlement of payments will help to improve stability in the New Zealand financial system by creating efficiencies and reducing risks, given there will be fewer financial transactions in the system awaiting receipt or payment at any given time. The change should also provide a foundation for innovations in the New Zealand payment system in the long run.

35 Insurance sector - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz)

36 Our oversight of financial market infrastructures - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz)

37 ISO 20022 - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz)

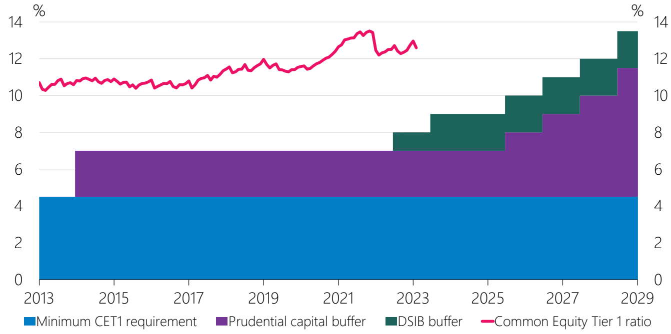
38 SBI365 - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz)

Charts

Figure 4.1

Common Equity Tier 1 capital ratio of locally incorporated banks

(monthly)

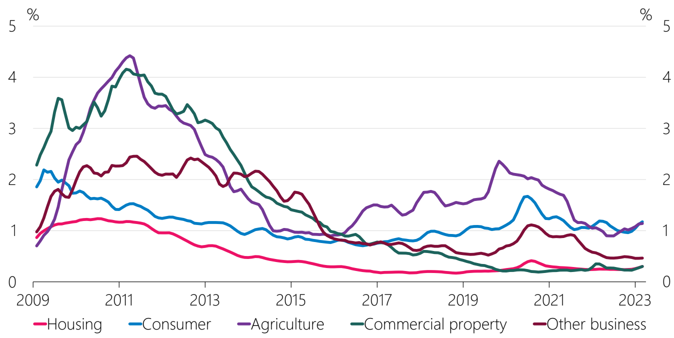


Source: RBNZ *Capital Adequacy survey.*

Figure 4.2

Bank non-performing loan ratios by lending portfolio

(monthly, 3-month average)

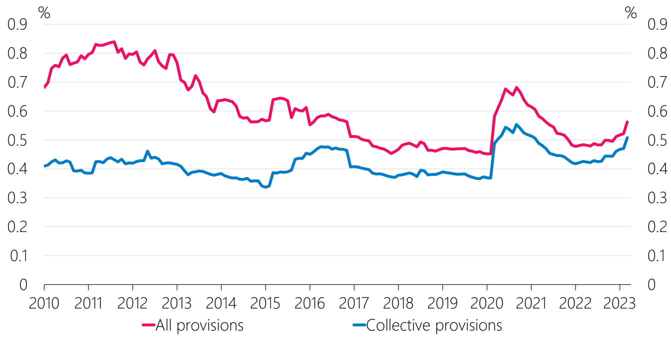


Source: RBNZ *Bank Balance Sheet survey.*

Figure 4.3

Bank provision-to-loan ratios

(monthly)

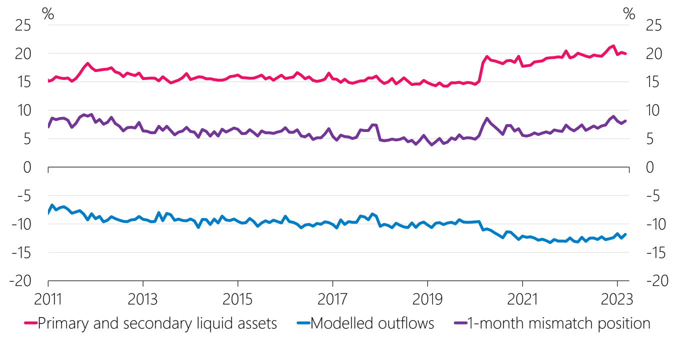


Source: RBNZ *Bank Balance Sheet survey.*

Figure 4.4

Breakdown of bank liquidity mismatch ratio

(monthly, percent of funding)

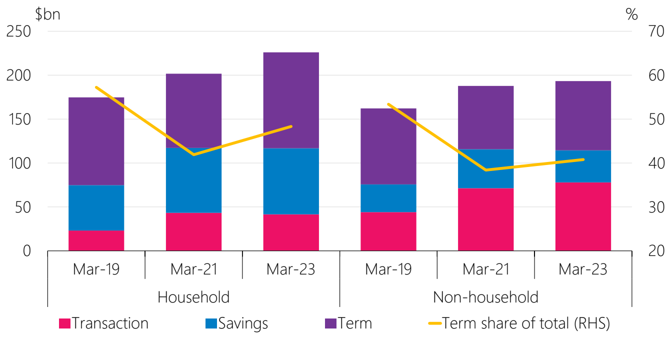


Source: RBNZ *Liquidity survey.*

Figure 4.5

Bank deposits by type

(monthly)

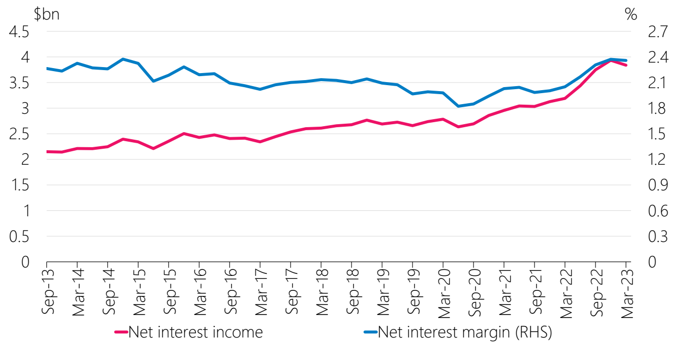


Source: RBNZ *Bank Balance Sheet survey.*

Figure 4.6

Bank net interest incomes and margins

(all banks, quarterly)

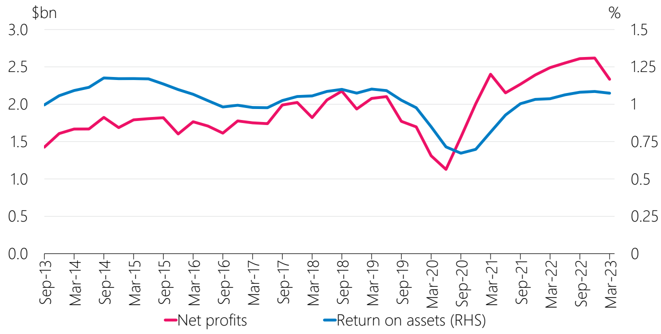


Source: RBNZ *Income Statement survey.*

Figure 4.7

Indicators of bank profitability

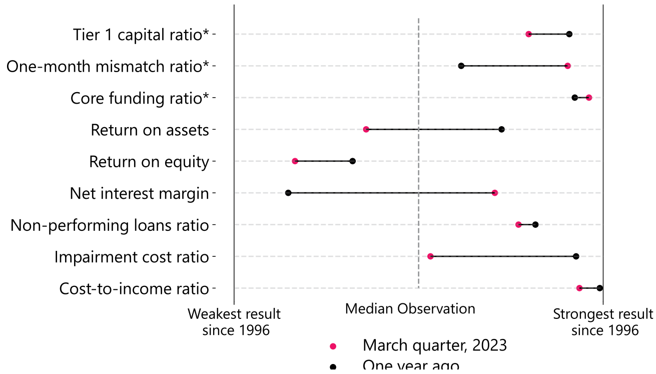
(before tax, quarterly)



Source: RBNZ *Income Statement survey.*

Figure 4.8

Banking system resilience indicator suite



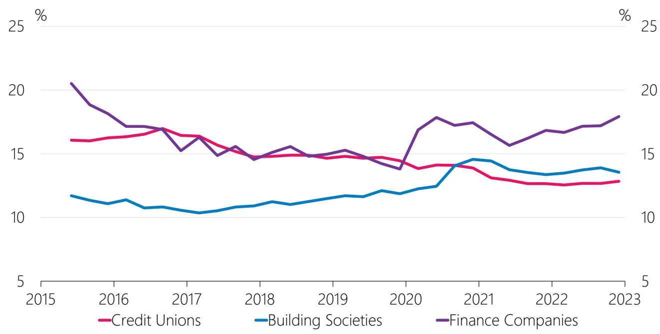
Source: RBNZ *Capital Adequacy survey, Liquidity survey, Income Statement survey, Bank Balance Sheet survey*, RBNZ calculations.

Note: Non-performing loans, impairment cost and cost-to-income ratios are presented in inverted scales for readability purposes, so that lower outcomes for these variables are shown on the right hand side (stronger resilience metrics). *Data for Tier 1 capital ratio is as at August 2022. Liquidity metrics begin in June 2010.

Figure 4.9

NBDT capital ratios

(weighted average, quarterly)

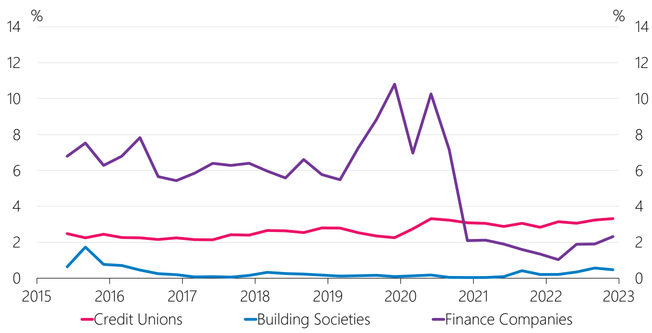


Source: RBNZ *Non-bank Deposit Takers survey.*

Figure 4.10

NBDT non-performing loan ratios

(weighted average, quarterly)

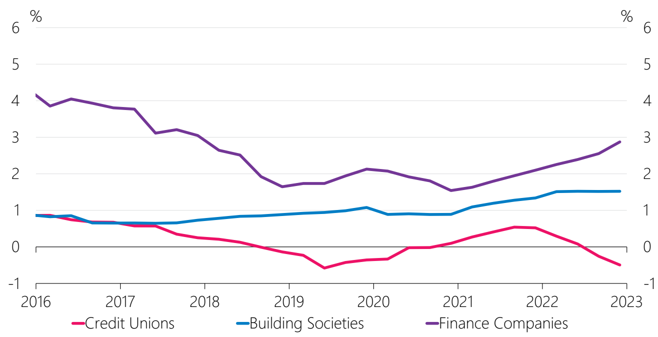


Source: RBNZ *Non-bank Deposit Takers survey.*

Figure 4.11

NBDT return on asset ratios

(before tax, quarterly)

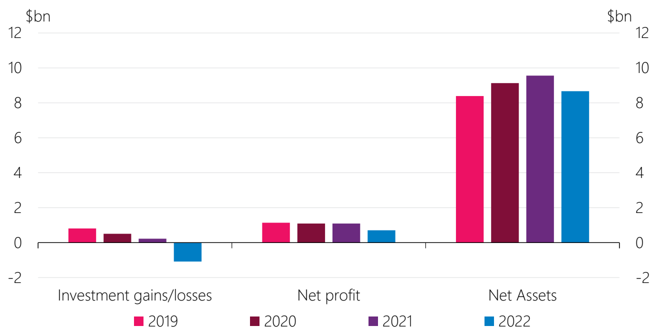


Source: RBNZ *Non-bank Deposit Takers survey.*

Figure 4.12

Annual key insurer indicators

(30 September each year)



Source: RBNZ *Quarterly Insurer Monitoring Report.*

Table 4.1
Key metrics for registered banks

Metric	Value (%, end of March)					Regulatory minimum (%)	Comment
	2019	2020	2021	2022	2023		
Tier 1 capital ratio	13.6	13.4	15.0	13.8	13.8*	8.5**	Tier 1 capital ratios have declined over the past 12 months due to the implementation of the IRB output floor and IRB scalar changes.
Mismatch ratio (one month)[1]	4.3	5.9	5.6	6.7	8.0	0	Mismatch ratios remain robust, reflecting the high level of settlement balances in the system.
Core funding ratio	87.8	88.3	86.8	89.5	90.4	75	After a reduction during the pandemic, a 75 percent minimum CFR requirement resumed from 1 January 2022.
Annual return on assets (after tax)	1.10	0.85	0.81	1.04	1.05		Profitability continued to rebound from lows during 2020.
Annual return on equity (after tax)	14.3	11.3	10.8	13.1	12.8		Banks' return on equity has increased back to pre-pandemic levels on the back of higher net interest margins.
Net interest margin (quarterly, annualised)	2.11	2.01	1.91	2.02	2.30		Net interest margins are bolstered by the rising interest rate environment.
Non-performing loans ratio	0.49	0.62	0.57	0.38	0.45		Non-performing loans are at very low levels compared to historical norms.
Annual credit impairment expense (% of average loans)	0.06	0.22	0.09	-0.02	0.12		Impairment expenses remain at low levels for now.
Cost-to-income ratio	39.5	44.5	44.5	40.9	38.5		The cost-to-income ratio has been consistently decreasing to pre-COVID-19 levels, despite high labour cost inflation.

Source: RBNZ *Capital Adequacy survey, Liquidity survey, Income Statement survey, Bank Balance Sheet survey*.

1 Mismatch ratio (one month) is presented as a three-month moving average to remove short-term volatility

* Tier 1 capital ratio of 2023 is up to February.

** Includes the capital conservation buffer of 2.5 percent of risk-weighted assets, which banks must maintain to avoid dividend restrictions. For Domestic Systemically Important Banks, the capital conservation buffer is 3.5 percent as of February 2023, meaning the regulatory minimum for their Tier 1 Capital ratio is set at 11.5 percent of risk-weighted assets.

Table 4.2

Key metrics for NBDTs (as at end of December)

Metric	Segment	2018	2019	2020	2021	2022
Total assets ($m)	Finance Companies[1]	245	300	252	319	392
	Credit Unions	1,156	1,140	1,144	1,120	1,091
	Building Societies and Other[2]	1,161	1,267	1,375	1,511	1,606
Capital ratio (%)	Finance Companies	15.0	13.8	17.4	16.8	17.9
	Credit Unions	14.7	14.5	13.9	12.7	12.8
	Building Societies and Other	11.5	11.9	14.6	13.4	13.6
Non-performing loan ratio (%)	Finance Companies	5.8	10.8	2.1	1.3	2.3
	Credit Unions	2.8	2.3	3.1	2.8	3.3
	Building Societies and Other	0.2	0.1	0.0	0.2	0.5
Return on assets, before tax (%)	Finance Companies	1.6	2.1	1.5	2.1	2.9
	Credit Unions	-0.1	-0.4	0.1	0.5	-0.5
	Building Societies and Other	0.9	1.1	0.9	1.3	1.5
Number of operating entities	Finance Companies	7	7	6	6	6
	Credit Unions[3]	13	9	9	8	5
	Building Societies and Other	4	4	4	4	4

Source: RBNZ *Non-Bank Deposit Takers survey.*

1 Datas for finance companies exclude FE Investments Limited from March 2020, when it entered receivership.

2 Other NBDT refers to Christian Savings Limited.

3 Firefighters Credit Union merged with NZCU Auckland in June 2022, Westforce Credit Union merged with First Credit Union in August, and Steelsands Credit Union merged with First Credit Union in December.

Table 4.3

Key metrics for New Zealand's insurance sector

Metric	Value (%)				Regulatory minimum	Comment
	Sep 2019	Sep 2020	Sep 2021	Sep 2022		
General insurers						
Solvency ratio	161	201	183	176	100	Solvency ratios increased significantly in early 2020 when insurers ceased paying dividends and retained capital.
Profit margin	12.9	13.2	10.3	12.7		Profit margins have been reasonably stable.
Expense ratio	13.4	13.0	13.5	12.7		Expenses have been relatively stable over recent years.
Life insurers						
Solvency ratio	128	123	139	141	100	Solvency ratios increased significantly in early 2020 when insurers ceased paying dividends and retained capital.
Profit margin	19.7	16.1	11.9	4.9		Profit margins materially decreased as rising interest rates led to investment losses.
Expense ratio	20.9	22.2	22.8	20.2		Non-commission expenses have been stable.
Health insurers						
Solvency ratio	332	313	356	397	100	Health insurers generally have stronger capital buffers than general insurers, reflecting the fact that many are mutual companies with restricted access to capital.
Profit margin	1.6	4.0	3.3	7.8		Profit margins for health insurers have been increasing, reflecting fewer elective surgeries performed during COVID-19. This trend is expected to reverse as firms process surgery backlogs.
Expense ratio	10.6	11.3	12.2	11.5		Expenses have been stable over recent years.

Source: RBNZ *Insurer Solvency Return, Quarterly Insurer Return.*

Notes:

1 Profit and expense figures are from the Quarterly Insurer Return for the year to September 2022. These cover just over 90 percent of the insurance sector by premium. Profit margin is profit after tax divided by gross premium revenue; 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).

2 Solvency figures are from the Insurer Solvency Return to September 2022 for all insurers.

Reserve Bank of New Zealand
Te Pūtea Matua