



**RESERVE  
BANK**

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T E P Ū T E A M A T U A

## Capital Review Paper 4: How much capital is enough?

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### Summary of Submissions

July 2019

## Contents

Background .....	3
Points to note .....	4
Non-technical summary of submissions .....	6
Defining the problem .....	7
The process so far.....	8
Analytical framework and calibration .....	9
Differences in standardised and IRB risk weights .....	13
Composition of capital requirements .....	15
Sectoral impacts.....	18
Transitional arrangements.....	18
Other Impacts and Issues.....	19
Appendix – Glossary .....	21

## Background

In 2017 the Reserve Bank began a comprehensive review of the capital adequacy framework for locally-incorporated registered banks in New Zealand, known as the 'Capital Review' (the Review).<sup>1</sup> The purpose of the Review is to identify the most appropriate capital framework for New Zealand banks, taking into account how the current framework operates and international developments in bank capital requirements.

It's about keeping New Zealanders, their investments, and the economy safe from the disastrous impacts of financial instability and the failure of a registered bank, which historical evidence suggests can be very long-lasting and go beyond just the financial costs for people.

By proposing changes that may have a cost increase for some, we must also provide clarity about the benefits for most, and through our consultation we've tried to define what that means.

In the last two years we've published four consultation papers as part of the Capital Review:

- The first was an '**Issues Paper**' covering a high level scope and key issues that should be included in the Review.
- The second was '**What should qualify as bank capital?**' which discussed the definition of regulatory capital instruments.
- The third consultation paper, '**Calculation of risk-weighted assets**' questions the measurement of risk for bank exposures.
- The fourth and most recent consultation paper is '**How much capital is enough?**' sought views on proposed capital requirements for banks, as well as the other proposals in the Capital Review to date.

In response to the first three consultation papers, we published '**Responses to Submissions**', summarising the submissions we received, and announced our in-principle decisions related to those respective consultation papers. Our key in-principle decisions made from the previous consultation papers are to:<sup>2</sup>

- accept only non-redeemable, non-contingent, perpetual preference shares as Additional Tier 1 (AT1) capital;

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<sup>1</sup> All background documents related to the Capital Review, including previous consultation papers and the Reserve Bank's response to submissions, can be found here:

<https://www.rbnz.govt.nz/regulation-and-supervision/banks/consultations-and-policy-initiatives/active-policy-development/review-of-the-capital-adequacy-framework-registered-banks>

<sup>2</sup> Note that in-principle decisions indicate the Reserve Bank's intentions, and are not final decisions.

- continue allowing internal ratings-based (IRB) modelling for most credit risk exposures;
- impose restrictions on IRB modelled risk-weighted assets (RWA) relative to the standardised RWA; and,
- require IRB banks to report RWA and capital ratios using both the IRB approach and standardised approach (known as 'dual reporting').

In our fourth paper *'How much Capital is enough?'* we proposed setting a minimum regulatory capital requirements at 16 percent for Tier 1 capital (6 percent minimum requirement plus a 10 percent prudential capital buffer), which includes a domestic systemically important bank (D-SIB) capital buffer and countercyclical capital buffer (CCyB).

The paper also asked other questions on the capital framework, such as whether Tier 2 capital should remain in the framework.

## Points to note

This paper intends to summarise the common themes and views raised in the submissions, and is not intended to be an exhaustive summary of all points raised. It does not provide our response to the submissions.

A final decision alongside the Reserve Bank's response to submissions will be published in late November 2019, and readers are encouraged to refer to the actual submissions for further details and other points raised.

As part of our process to encourage continual feedback, we are seeking the views of varied stakeholders through a range of ways:

- engagements with stakeholders i.e. meetings with banks, shareholders, investors, industry bodies, and members of the public;
- a workshop with Māori service providers;
- a workshop with social service providers and NGOs (Consumer NZ, Age Concern NZ, Public Health Association, NZ Council of Christian Social Services) and other similar entities;
- focus groups with members of the public carried out by an independent market research agency;
- reports by international agencies (IMF, OECD, BIS) and rating agencies; and,
- three external independent expert reports.

All of the information we gather will be carefully considered and factored into our analysis and subsequent decisions. We know how important it is to be transparent about our assessment of the issues raised, which we will release, and that includes publishing a regulatory impact statement of the cost-benefit analysis.

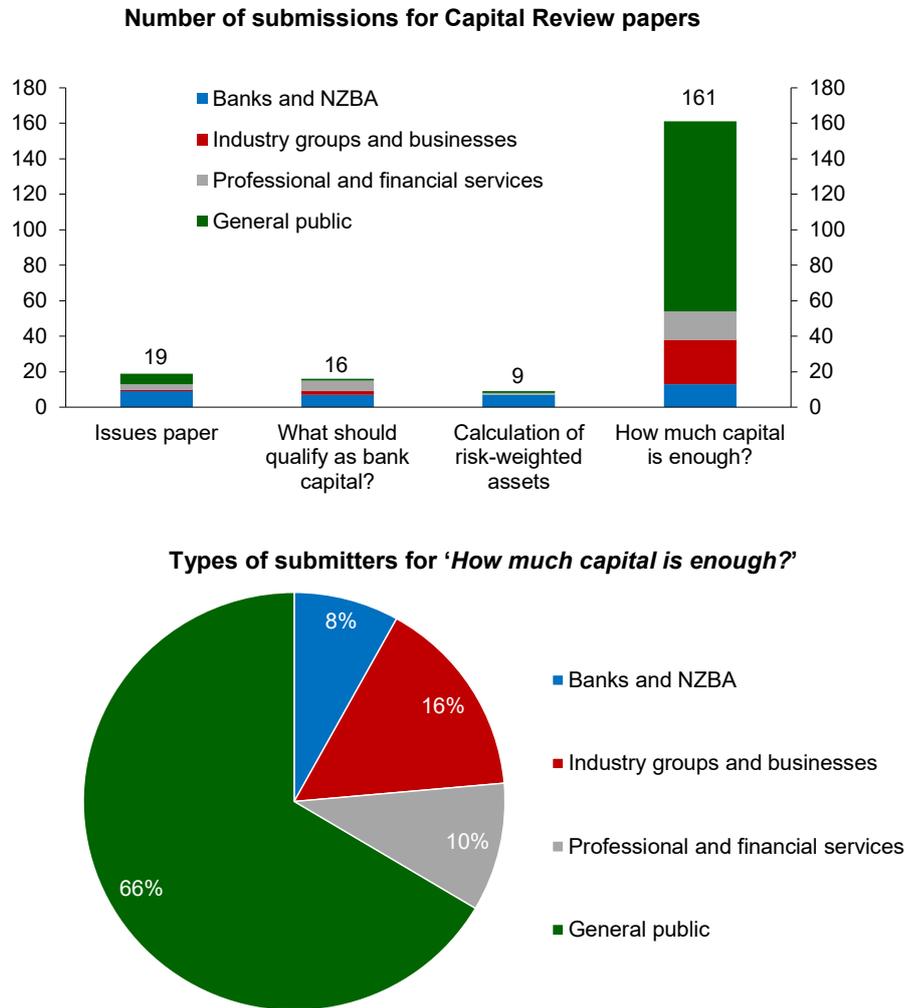
Further consultation on the aspects of the capital framework will be done where required, for example, the Escalating Supervisory Response.

There was significant and wide-ranging media and public interest in our most recent consultation paper, *'How much capital is enough?'* with feedback from 161 submitters (figure 1). Analysts and other interested parties who did not make a formal submission shared their views too. As a result, we monitored and reviewed much of the anecdotal feedback from these sources but decided not to capture them in this summary of submissions.

The Reserve Bank welcomes the large number of submissions in this consultation, as well as the effort and consideration that has gone into them. We also appreciate the time and resources that other stakeholders committed in meeting with the Reserve Bank to discuss the proposals. To put this in some perspective, the Reserve Bank received submissions from 161 individuals and organisations. The previous capital consultation, on the *'Calculation of risk-weighted assets'*, received 9 submissions. We believe this shows how important this issue is for everyone, and are pleased that a broader set of stakeholders has taken an interest in the Capital Review.

In this summary paper it's important to note that we have not presented any policy judgements and are merely reflecting views we received.

**Figure 1: Summary statistics of submissions to the Capital Review**



## Non-technical summary of submissions

In general, submitters support the Reserve Bank's objective to ensure that New Zealand's financial system is safe, acknowledging the economic and well-being impacts (social costs) of banking crises. They understand that higher bank capital can reduce the chances of these crises occurring. Submitters also recognise that higher capital requirements could lead to higher borrowing costs for New Zealanders, and some question whether having a safer banking system is worth the increased costs.

Some submitters believe that the Reserve Bank has not adequately presented its case for change and noted the absence of a full cost-benefit analysis of the proposals at this stage of the policy process. They say that the proposals would require New Zealand's banks to have levels of capital well above other jurisdictions and that the Reserve Bank's own stress tests (hypothetical tests of how banks would perform if economic conditions worsened) show that New Zealand's banking system is already safe enough.

Cautious reaction from some is expected, but it's worth noting that many submitters, particularly from the general public, support the proposed higher capital requirements for banks.

There was substantial engagement on the Reserve Bank's economic analysis and estimated impacts of the proposals. Several submitters provided their own estimates on the overall economic impacts, as well as the impact on bank customers. Some submitters expressed concern about the financial impact of higher capital requirements on certain sectors of the economy, particularly the agricultural sector and small businesses.

There is broad support for the Reserve Bank's aim to reduce the gap in calculating capital requirements between the models approach, used by ANZ, ASB, BNZ, and Westpac, compared with the standardised approach used by domestic and other banks. Many submitters suggest that bank lending with similar risk characteristics should have the same capital requirements, regardless of the approach to calculating capital used by the lender.

Others, including the four big banks, say that the proposals go too far and will reduce incentives to measure risks accurately.

While there is broad support for higher capital requirements, including by most banks, several submitters think that the requirements should be met with more non-equity capital. They also say that the Reserve Bank should reconsider its in-principle decisions on what qualifies as bank capital. Many would like certain convertible debt instruments to be an option as a substitute for part of the proposed equity capital.

Many submitters requested that banks be provided with more than the proposed five years to meet any new requirements. It is also suggested that the Reserve Bank periodically assess the impacts of any changes during the transition period to ensure that it is appropriate to continue moving forward.

## **Defining the problem**

Overall submitters support the objective of ensuring a sound and efficient financial system in New Zealand. In general, submitters note several benefits to reduced risk in the financial system from having well capitalised banks with some pointing to avoiding the economic costs of crises and others being concerned with the social costs, particularly on the most disadvantaged members of society. Others say that the fiscal risk associated with potential bank bailouts is reduced with higher capital, and note that higher capital levels would provide greater protection to depositors.

However, a range of submitters, including the largest four banks, question whether the Reserve Bank has sufficiently established a strong case for increasing capital requirements to the extent proposed. Some, but not all, say that the Reserve Bank has not demonstrated that there is a problem with the existing level of capital in the

banking system, and therefore the current level of capital is sufficient. Some submissions cite past Reserve Bank *Financial Stability Reports* that indicate current levels of bank capital are adequate.

In addition, some submissions note that New Zealand banks withstood the Global Financial Crisis (GFC) without incurring major losses. These submitters believe that this means banks are already well capitalised, which diminishes the case for higher capital requirements. It's suggested that the largest four banks in New Zealand would receive parental support (for example, through the provision of funding and liquidity), if needed.

The New Zealand Bankers Association (NZBA), several banks, and some other submitters, reference the performance of the banks in stress testing carried out by the Reserve Bank. These submitters suggest the results of these stress tests show that New Zealand banks would likely remain solvent under extreme stress events. Some submitters note that the banks had similarly performed well in the stress tests carried out in the International Monetary Fund's 2017 Financial Sector Assessment Programme.

Several submitters also cite rating agencies' assessments of the four large banks. Most of these submitters suggest credit ratings of these banks (ANZ, ASB, BNZ, and Westpac) imply a failure rate that is less frequent than 1 in 200 years.<sup>3</sup> These submitters suggest this means that the 1 in 200 year risk appetite for bank failure is already being met at existing levels of capital in the banking system.

The NZBA commissioned PricewaterhouseCoopers (PwC) to carry out an assessment of New Zealand banks' "internationally comparable" capital ratios. PwC's report estimates that existing capital held by banks is equivalent to a 15.5 percent capital ratio under the international minimum (Basel) standards, 500 basis points higher than banks' reported capital ratios. The same report suggests that the current proposals would increase the internationally comparable ratio for New Zealand banks to 27.1 percent. The four largest banks refer to the PwC report to reinforce their view that New Zealand banks already have high levels of capital compared with banks in other countries. A number of other submitters also refer to an earlier version of the PwC report completed in 2017.

## **The process so far**

### **Cost-Benefit Analysis**

A number of submitters express concerns regarding the consultation process, and more specifically, the absence of a cost-benefit analysis (CBA) within the Reserve Bank's most recent consultation paper. These submitters say that the Reserve Bank's usual approach of consulting on the key elements of the costs and benefits

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<sup>3</sup> Most of these submitters cite the issuer credit rating, which includes 'parental support' notch uplifts. One bank cited the standalone credit rating, which does not include parental support. One submitter also took the five-year cumulative default rate and annualised it.

in the consultation, and completing a CBA as part of the final stages of the policy process, is not acceptable given the magnitude of changes proposed in the consultation. These submitters state that the absence of a CBA limited the ability of stakeholders to respond to the most recent consultation paper.

A CBA will be included as part of the Regulatory Impact Assessment at the end of the decision-making process, some stakeholders suggest an additional consultation process on the CBA itself, and that the CBA be reviewed by an independent party.

## Phase 2 of the Reserve Bank Act Review

Some submitters suggest that issues being reviewed as part of Phase 2 of the Reserve Bank Act Review, currently underway, intersects with proposals in the Capital Review. A few say that the Capital Review consultation should wait for the Phase 2 consultation process, given it will cover issues such as depositor protection, the crisis management framework, and the intensity of banking supervision. It is suggested that the existence of a depositor protection framework, a strong framework for resolving failed banks, and more intense supervision could all be reasons to set capital requirements lower than proposed by the Reserve Bank.

## Analytical framework and calibration

### Risk Appetite

#### Box 1 – The Reserve Bank’s risk appetite framework

The Reserve Bank used, amongst other things, a ‘risk appetite framework’ to calibrate the proposed capital requirements. This framework considers both main elements of its legislated mandate: ‘soundness’ and ‘efficiency’. In this context, ‘soundness’ is defined as maintaining confidence in the banking system in the face of unexpected shocks so large as to have only a 0.5 percent probability of occurring in any given year. In other words, the banking system could remain solvent up to a crisis of a magnitude seen only once every two hundred years. ‘Efficiency’ is defined as identifying further economic benefits from higher capital requirements after the soundness objective was met.

Applying the risk appetite framework requires assumptions to be made about the relationship between financial stability and expected output. The key drivers of this relationship are the impact of bank capital on the probability of bank failure, lending rates, investment, and steady-state output, and the impact of financial crises on output.

The Reserve Bank looked at the impact of bank capital on the probability of bank failure from three perspectives: findings in the international literature; risk modelling in the context of a stylised New Zealand bank; and stress test results for New Zealand banks.

Following this, the Reserve Bank assessed the economic impacts of the proposals (the impact on lending rates and costs of financial crises) using methodologies outlined in international studies, as well as reviewing international literature on optimal capital levels.

Some submitters welcome the framework in addressing these aims because it allows the wider societal impacts of bank failure to be identified and included in the debate for setting the policy. However, other submitters note that there are also social costs resulting from higher capital requirements in non-crisis periods that should be considered.

A few submitters are of the view that the sequencing of the framework, which first attempts to achieve soundness, and then efficiency, biases the results. A common view amongst these submitters is that there is a lack of transparency around the selection of the Reserve Bank's 1 in 200 year assumption and that the Reserve Bank has not made the case for choosing this particular risk appetite level.

### Inputs and Calibration

Some submitters question the relevance of overseas findings for New Zealand, saying that the studies are mostly calibrated to large economies with domestically-owned banks such as the United States. They say that since the risk weights applied in these overseas jurisdictions are lower than in New Zealand, the risk-weighted capital ratios reported in the literature are not relevant for New Zealand.

Other submitters point to the dominance of developing countries in the global record of banking crises, which they say creates a bias in the Reserve Bank's findings. These submissions generally say that the Reserve Bank consequently overstates the reduction in crisis probability of higher capital as well as implied optimal capital ratios.

A common view regarding the risk modelling was that the model inputs were too conservative, inflating the probability of bank failure for a given level of capital. In some cases, submitters, including some of the large banks, provide the results of their own analysis and say the stated soundness goal would be satisfied by current capital levels if different inputs are used.

Several submissions also raise concerns that other drivers of the probability of bank failure did not appear to be considered by the Reserve Bank, such as other regulatory tools, payments system regulation, and disclosure requirements.

Several submitters say that the Reserve Bank has placed insufficient weight on the value of stress test exercises in its approach to calibrating the proposed capital requirements.

There was substantial engagement on the Reserve Bank's economic analysis and estimated impacts of the proposals. This includes a few submitters providing their

own estimates on the overall economic impacts as well as the impact on bank customers.

#### Box 2 – The Modigliani-Miller offset

According to economic theory, a firm operating with more equity funding will have a less volatile return on its equity, and also its debt funding will become less risky.

Investors' required rates of return on equity and debt funding should therefore reduce as a firm operates with a higher proportion of equity. As such, the additional costs of relying on equity funding, which has a higher required return than debt, is offset, either in full or partially. This is generally referred to as the 'Modigliani-Miller' (MM) offset, a reference to the economists who developed the theory.

A 100 percent MM offset translates to investor returns adjusting perfectly so the average cost of funding does not change, and a 0 percent MM offset translates to no change in investor returns. The additional costs that are not adjusted for through the MM offset are recouped with a higher return on the firm's assets or, in the case of banks, higher lending interest rates. As such, a higher MM offset generally means a lower impact on interest rates from higher capital requirements.

The impact on the economy through lending rates is raised in many submissions. Several submitters, including the four largest banks, raised concerns about the Reserve Bank assumptions on the cost of funding for banks, believing that a Modigliani-Miller (MM) offset of 50 percent is unrealistic. Some submissions state that shareholders' required returns on their investment in banks will not change even if banks are subject to higher capital requirements. They say this will motivate banks to take steps to increase profit, such as increasing the cost of borrowing for bank customers, so that shareholder returns are maintained.

Some of the large banks say that their Australian parent bank requires them to earn a minimum rate of return, and that would not change even with higher capital ratios. They also state that their issuer credit rating for debt funding won't change, which means debt investors expected returns are unlikely to change. As such, these banks say that this would require them to maintain these returns in the face of higher capital requirements.

On the other hand, some submitters believe that shareholders' required rate of return should fall if banks are required to have higher minimum levels of capital, as this would reflect the bank's lower level of risk.

In general, as the MM offset determines the impact of higher capital requirements on the interest rates, those who say that a 50 percent MM offset is too high believe that the Reserve Bank has underestimated the impact on interest rates.

There were a range of other points in submissions that suggest different interest rate impacts compared to the Reserve Bank's estimate. For example, some say the voluntary capital buffer banks hold will be larger, and other say impacts will be largely restricted to certain sectors of the economy.

Others who commented on the interest rate impacts refer to work done by some analysts that estimated the impact may be larger than the Reserve Bank estimates. Another analytical piece notes that additional capital can be used to replace more expensive forms of debt funding or invested, and as such, 50bps increase in interest spread would be sufficient to maintain current shareholder returns.

Some submitters also engage on the impact on GDP from these higher interest rates. These submissions provide estimates that generally followed the same approach as the Reserve Bank, but with different assumptions for the impact on interest rates and the output multiple (how much these changes in interest rates impact output). One submitter also uses a vector auto-regression model to estimate the economic impacts. Overall, these submitters say that the Reserve Bank has underestimated the impact on GDP from these proposals based on their analysis.

Several submitters also raised concerns about the potential impact on GDP from reduced credit availability, particularly over the transition period. These submitters suggest that, as the Reserve Bank has focused on the long-run 'steady-state' impacts, the impacts from potential credit rationing would result in a larger negative GDP impact, at least in the transition period.

Although most of the discussion regarding specific elements of the economic impacts focused on interest rates, several submissions also commented on the economic costs of crises. In general these submitters said that the Reserve Bank's estimates for the cost of crises are too high and that a lower cost of crises should be assumed. Some also said that the studies cited by the Reserve Bank overstate the impact from banking crises and that Reserve Bank should consider New Zealand-specific factors, such as Open Bank Resolution (OBR) and the floating exchange rate, as factors that could reduce the cost of crises.

There are also comments on the potential monetary policy response to the impacts from higher capital ratios. While some submitters note that a lower Official Cash Rate (OCR) could offset some of the lending impact, others raise concerns that it would only influence short-term funding for banks and therefore not have a large impact on lending. Some submitters raise concerns about reducing the capability for future monetary policy responses to downturns as a result of a lower OCR. Some also note that a lower OCR could result in lower interest rates for depositors.

A few submitters also noted that there are additional impacts currently not considered by the Reserve Bank, particularly through foreign capital flows. Namely, they point to the cost of transferring bank profits outside of New Zealand to foreign-based shareholders. These submitters provide estimates using the increase in gross profit for the banking system that results from the higher lending spreads.

## Other regulatory tools and the broader regulatory framework

Some submitters note that capital requirements are only one aspect of the broader prudential regulatory framework. They suggest that other regulatory tools should be factored into the calibration of capital requirements, considering that all parts of the framework contribute to improving financial stability.

In general, most arguments focus on the use of other regulatory tools to limit the probability and impact of a banking crisis. Some also suggest that capital is not necessarily the most cost-effective way of achieving financial stability. These submissions generally touch on specific policies implemented post-GFC to support their arguments, including the Reserve Bank's liquidity policy, Loan-to-Value Ratio (LVR) restrictions, and Open Bank Resolution (OBR). Some submissions also note the important role of a well-resourced supervisor in monitoring banks and the ability to intervene if a bank's financial condition deteriorates.

## Differences in standardised and IRB risk weights

### Box 3 – Internal ratings-based and standardised approaches to capital

Internal ratings-based (IRB) banks (ANZ, ASB, BNZ, and Westpac New Zealand) use their own models to calculate their capital requirements (the 'IRB approach'). These must be approved by the Reserve Bank before an IRB bank may use them. Other banks must use risk weights prescribed by the Reserve Bank to determine their capital requirements (the 'standardised approach').

As part of the Capital Review, the Reserve Bank is proposing to narrow the gap in capital outcomes for similar loans between the IRB approach and the standardised approach. To do this, the Reserve Bank is proposing to introduce a 'floor' on risk-weighted assets (RWA) calculated under the IRB approach. This is proposed to be set at 85 percent of the equivalent RWA calculated under the standardised approach.

IRB banks also must currently apply a scalar of 1.06 to their RWA (the 'IRB scalar'). As part of these proposals the IRB scalar would increase 1.20.

These proposed changes would have the practical impact of IRB banks having about 90 percent of the RWA of an equivalent standardised outcome.

Most submitters that comment on this topic, including the standardised banks, are supportive of the Reserve Bank's proposals, which would go some way towards levelling the playing field.

Supportive submissions suggest that bank portfolios with similar risk characteristics should have the same capital requirements, regardless of the approach to calculating capital used by the lender. The joint submission from domestic-owned banks (Kiwibank, SBS, TSB and Co-op) suggest that capital requirements should

be the same under both approaches for similar risks. They also provide data that suggests that, for residential mortgages, domestic-owned banks (who use the standardised approach) have better portfolio quality than the four IRB banks as they have better LVR profiles and less property investor lending.

A few submitters also question whether the IRB approach is 'fit-for-purpose' in light of the scrutiny it has faced by some academics and recent breaches in IRB banks' use of internal models.

The IRB banks generally do not support the current standardised framework being used as a benchmark for setting RWA. They suggest that the IRB approach allows for greater risk differentiation and results in better risk management systems. Some of these submitters also suggest that the proposals, including the standardisation of some portfolios, could limit the risk sensitivity of IRB modelling.

Some IRB banks note that the current capital outcome differential between IRB banks and standardised banks could be attributed to the recent benign economic conditions. They note that capital requirements under the IRB approach are likely to be higher than the standardised approach during times of stress. One submitter suggests that the scalar and floor should be calibrated based on long-term averages.

The IRB banks and most domestic-owned banks suggest that the Reserve Bank implement the Basel III standardised framework for residential mortgages. The Basel III risk weights produce, on average, lower capital requirements but have more risk-sensitivity than the current New Zealand standardised approach for residential mortgages. The IRB banks suggest this should be adopted in lieu of the proposed increase in the scalar, while the domestic-owned banks say that adopting the Basel III risk weights would be an enhancement to the Reserve Bank's approach of levelling the playing field.

Additionally, domestic-owned banks note that, as the proposals target total IRB RWA, the impact is not as significant in the categories of lending where standardised banks are most active. For residential mortgages and SME lending, where domestic banks are more active, they note that IRB banks' capital levels will still be less than 90 percent of the standardised equivalent. As such, these submitters suggest that the IRB requirements should not be less than 90 percent of the standardised requirements on an asset class basis rather than an aggregate level. They contend that the principle to close the gap between the two approaches would not be adequately addressed.

Some domestic-owned banks also suggest that there should be a higher D-SIB requirement (currently proposed to be one percent of RWA), and therefore a lower total capital requirement for non D-SIBs than proposed.

Submitters also note other factors that could constrain the ability of domestic-owned banks to compete, such as a more limited access to capital and lower profitability compared to the IRB banks.

## Composition of capital requirements

While there is broad support for higher capital requirements, several submitters recommend that the composition of the capital requirements should be met with more non-equity capital than the Reserve Bank is proposing. They also say that the Reserve Bank should reconsider its previous in-principle decisions on the eligibility of contingent instruments. Most of the submitters from the banking industry, and some public submitters, provide alternative suggestions regarding the composition of the proposed 17 to 18 percent total capital requirement.

### Box 4 – Current definition of capital

There are two general types of capital in the current regulatory framework: Tier 1 and Tier 2 capital.

Tier 1 is ‘going-concern’ capital, which means it absorbs losses and helps a bank maintain solvency. Within Tier 1 capital, there is Common Equity Tier 1 (CET1) capital, which is shareholder equity, and Additional Tier 1 (AT1) capital. In New Zealand market, AT1 is mostly made up of redeemable perpetual debt that converts to equity at a given ‘trigger’ point. For example, AT1 could convert to equity when a bank has a CET1 ratio of less than 5.125 percent or if a bank is deemed non-viable.

Tier 2 is ‘gone-concern’ capital, which means that it absorbs losses before other creditors (such as depositors) when a bank becomes non-viable. Tier 2 instruments are contingent fixed-term debt that write off or convert to equity when a bank is deemed non-viable.

In November 2017, the Reserve Bank made in-principle decisions: to only accept non-redeemable, non-contingent perpetual preference shares as AT1 capital, and to only accept redeemable, non-contingent preference shares and long-term subordinated debt as Tier 2 capital. The Reserve Bank has also been exploring the option of a new Tier 1 instrument for mutual banks and has asked for views on whether Tier 2 should be retained at all in the capital framework.

### Feedback on AT1 capital

Some submitters say that given the size of the proposed increase in capital requirements, the Reserve Bank should revisit its previous in-principle decisions, particularly regarding what can qualify as AT1 capital. In particular, some submitters state that the current hybrid capital instruments are effective at absorbing losses and should therefore qualify as AT1 capital.

Some submitters say that the Reserve Bank’s concerns around the economic and legal effectiveness of hybrid capital instruments are either unwarranted or can be addressed via mitigating actions. For example, some suggest increasing the CET1 ratio trigger point so AT1 instruments would convert to equity at CET1 ratios above the current 5.125 percent. Some also say that although the legal effectiveness of

contractual conversion and write-off provisions has not been tested in New Zealand, legislative reform can be undertaken to ensure effectiveness of conversion.

Several submitters state that New Zealand has an effective regulatory regime and that there has been no case of mis-selling of AT1 instruments. Some say any further concerns around mis-selling can be addressed by restricting sales of hybrids to wholesale investors. Furthermore, they note that the Reserve Bank has extensive statutory management powers, and that the Reserve Bank can direct any bank to suspend payments to all owners of Tier 1 and Tier 2 instruments. Therefore, some submitters conclude that the risk of the government bailing out investors in hybrids is remote.

Some submitters state that there is considerable investor demand and established market for contingent and redeemable instruments, but question whether there is sufficient investor demand for a non-redeemable AT1 instrument. Domestic banks also express concerns about their ability to market such an instrument, given their ownership structure, scale, and relatively lower profitability compared to the four largest banks. Other submitters suggest alternative forms of AT1 capital, such as non-contingent, but redeemable, perpetual preference shares.

Moreover, some submitters note that holders of hybrid capital instruments are highly subordinated, and are incentivised to monitor the management and financial position of a bank.

Several submitters, including banks, note that relying more on contingent instruments, instead of equity, for the proposed capital requirements can lower the economic costs of the proposals as non-equity capital is relatively less expensive. These submitters are in favour of allowing banks to rely more on non-equity capital. For example, some suggest increasing the amount of AT1 capital (as a substitute for equity) from the proposed 1.5 percent of RWA to 2 or 3 percent.

## Tier 2 Capital

Feedback on retaining Tier 2 in the capital framework is mixed. Some submitters state that if Tier 1 capital requirements are set at 15 to 16 percent, then there is no need for Tier 2 capital to absorb losses and is therefore unnecessary in the proposed framework. However, others submitters say Tier 2 capital provides confidence for depositors and other senior lenders by providing a buffer to absorb losses ahead of them.

Some submitters, particularly the domestic banks, also say that as Tier 2 capital can be effective in absorbing losses and should be retained to substitute for some of the proposed Tier 1 capital requirements.

Some submitters note that Tier 2 capital is much cheaper than equity, and would reduce the economic impact of the proposals if it is used instead of equity. Some submitters cite other regulators' focus on Total Loss Absorbing Capacity (TLAC),

and in particular, the Australian Prudential Regulation Authority's (APRA) proposal to increase Tier 2 capital requirements.

Amongst those who support the inclusion of Tier 2, there is some support for retaining contractual triggers. The view of these submitters is that contractual triggers assist resolution, lead to more price-sensitive instruments, and serves a valuable signalling role. However, other submitters appear to support the in-principle decision to remove contingent triggers as a Tier 2 requirement, since they view these triggers as redundant under New Zealand's statutory management regime.

Some submitters point to the benefits for New Zealand in having banks listing debt instruments and equity locally, which would encourage market monitoring of bank performance, and promote the development of New Zealand capital markets.

### Countercyclical Capital Buffer

Most submitters are supportive of including a countercyclical capital buffer (CCyB). Some submitters note that given the relatively low level of the Official Cash Rate (OCR) compared to historical levels, the ability to lower prudential capital requirements by adjusting the CCyB would improve the Reserve Bank's ability to stimulate the economy during a recession.

None of the submitters who commented suggested a CCyB that is smaller than the proposed 1.5 percent, but some suggested it be higher.

Some of those who support the CCyB want it to be set above zero only when risk conditions were elevated ('late-set'), whereas others support the idea of setting CCyB above zero in normal conditions ('early-set').

### Domestic Systemically-Important Banks (D-SIB) Buffer

Overall, submitters who discuss the proposed D-SIB buffer are generally supportive. Some suggest it should be larger than what is currently proposed, with more gradations depending on the systemic importance of the bank, and therefore reduce the total capital requirements for banks that are not designated as D-SIBs. For example, one suggestion was to require Tier 1 capital of 10 percent of RWA for the smallest banks and progressively increase to 16 percent of RWA for the largest banks. Some submitters also say the D-SIB buffer is a more preferable way to level the playing field than the proposal to increase RWA for IRB banks relative to the standardised outcome.

### Voluntary capital buffers

Many submitters stated that the Reserve Bank has not considered the likelihood that banks will have voluntary buffers above capital requirements. These submitters say that the Reserve Bank should include voluntary buffers as part of the 16 percent Tier 1 capital composition so actual capital ratio of banks, rather than capital ratio requirements, satisfy the Reserve Bank's 1-in-200 year risk tolerance.

## **Sectoral impacts**

A number of submissions, including those from industry representatives and businesses, indicate that the proposals could disproportionately impact particular sectors of the economy, either by increasing lending costs, reducing credit availability, or both. Many submissions note that the sectors most vulnerable to these developments are relatively riskier, and so lending to these sectors has higher capital requirements. Highlighted sectors include the agricultural, commercial, and SME sectors. It is also suggested that credit leaving these sectors would likely move to the New Zealand housing sector, which may increase concentration risk for the system.

Many of these submissions focus on agricultural lending. Some bank submitters note that this is one of the lowest returning sectors for bank lending, and that New Zealand banks' appetite for further agricultural lending has decreased. Submitters also say that increased borrowing costs would increase financial stress at a time when the agricultural sector is already facing significant pressures to de-leverage and respond to environmental issues. These submissions suggest that the capital proposals should be coordinated with broader government initiatives in order to avoid disorderly responses to rural debt and undermining the sector's response to environmental issues.

Some submitters also note that banks are already referencing the proposed changes to capital requirements as a reason for increased lending rates.

Several submitters also note that SMEs, including those in the agricultural sector, rely heavily on bank lending and do not have the access to alternative sources of funding compared to larger companies, for example, in local and international debt capital markets.

Some submitters say that the Reserve Bank has not adequately assessed these sectoral impacts and request that the Reserve Bank conduct further analysis in this area and publicly release the results for discussion.

## **Transitional arrangements**

Most submitters are in favour of a longer transition period to implement any increased capital requirements, particularly if the proposals are unchanged. A few submitters would support the proposed five-year transition period if alternative capital structures are introduced. Submitters mostly propose alternative transition periods of between seven to ten years.

Nearly all submissions that commented on this note that a longer transition period would soften the economic impacts of any price increases, as banks would have more time to adjust their balance sheets to meet any new capital requirements. Submissions from the agricultural sector, in particular, note that given the potential

reduction in credit availability and increase in lending rates, a longer transition period would allow them to reduce debt levels.

A few submitters also say that a longer transition period would allow more time to phase out current AT1 and Tier 2 instruments and develop alternative compliant AT1 instruments, should the Reserve Bank's previous in-principle decision be confirmed. They also suggest that grandfathering arrangements on legacy or outstanding AT1 and Tier 2 instruments should be considered.

Feedback is mixed on whether banks not identified as D-SIBs should be provided with a longer transition period. Non-D-SIBs state that they would need more time to build up capital levels, particularly if almost all required capital is to be funded from retained earnings.

Other submitters state that they do not see a reason for different transition periods between D-SIBs and non-D-SIBs. One submitter also notes that D-SIB banks will have to have a greater increase in capital required in the first two years, and that this would improve the competitive position of non-D-SIBs.

## **Other Impacts and Issues**

### **Disintermediation**

Several submissions, particularly those from banks, express concern that the Reserve Bank's proposals would lead to greater disintermediation of credit provision in New Zealand. That is, non-banks, for example, credit unions, finance companies, and offshore lenders, would become larger credit providers in New Zealand if banks reduce their provision of credit to certain sectors of the economy. These submissions say that that these non-bank lenders would be more likely to restrict or withdraw credit to the economy during periods of financial stress. They note that disintermediation may increase the risk of financial instability given that unregulated (or less regulated) entities are likely to have poorer risk management practices and lower capital levels than banks.

### **Branches**

Some submitters also note the need to 'level the playing field' between locally-incorporated banks and overseas-incorporated banks ('branches') by applying the same capital requirements to both. Branches are not required to meet New Zealand capital adequacy rules, and submitters noted that differences in capital requirements create a competitive advantage for branches.

### **International context**

Submissions from banks suggest that the Reserve Bank's capital requirements should better align with those of the Australian Prudential Regulation Authority (APRA), as this would help promote financial system efficiency. Some banks also note that the ability of their Australian owners to issue more equity (share) funding

to the New Zealand subsidiary bank may be constrained by APRA's rules on related party funding (APS222).

Some submissions also touch on how changes to the IRB framework will affect overseas investment in banks with New Zealand subsidiaries. They note that these changes will make New Zealand bank capital ratios less comparable to overseas banks. In particular, these submissions note that the proposed increase in the scalar (from 1.06 to 1.20) would add additional conservatism to the New Zealand framework, which erodes comparability.

### Market Development

The interaction between the bank capital regime and the wider financial markets was raised by some submitters. There is general support for banks locally listing their capital instruments (whether equity, debt, or hybrid debt). Submitters suggest that the capital framework can incentivise banks to raise new capital via listed instruments, which would have the ancillary benefit of deepening New Zealand's capital markets.

### Escalating Supervisory Response

The escalating supervisory response proposal is also supported in principle by submitters, noting that further consultation is required.

### Leverage Ratio

There is little support for imposing a leverage ratio as a minimum requirement and some support for requiring banks to disclose a leverage ratio. Banks generally say that leverage ratio requirements would create additional compliance costs. One bank also notes that the lack of reported leverage ratios has not negatively affected their offshore funding.

## Appendix – Glossary

AT1 capital	Additional Tier 1 capital. AT1 capital, which includes perpetual preference shares and contingent convertible debt, is the second highest quality of capital behind CET1.
Capital	Part of a bank's funding that allows it to absorb financial losses while remaining solvent. Includes the investment of the bank's shareholders (e.g. ordinary shares and retained earnings).
Capital ratio	A bank's capital divided by its RWA. A capital ratio is a key indicator of the financial strength of a bank, measuring the losses it can withstand relative to the risk of its business.
CET1 capital	Common Equity Tier 1 capital. CET1 is the highest quality of capital as it is permanently available to absorb a bank's financial losses. CET1 includes shareholders' investment (ordinary shares) and the bank's retained earnings.
Conservation buffer	A type of prudential capital buffer that applies to all banks. The conservation buffer promotes capital resilience by requiring banks to maintain capital levels above the minimum requirement.
Countercyclical capital buffer	A type of prudential capital buffer that the Reserve Bank may increase or decrease over the financial cycle. Increasing the countercyclical capital buffer aims to build banks' capital resilience and guard against financial stability risks. Lowering the countercyclical capital buffer enables banks to operate at lower capital levels during periods of financial system stress, to promote their ability to continue lending to support the economy.
D-SIB buffer	Domestic-Systemically Important Bank capital buffer. A type of prudential capital buffer that applies to banks that are deemed systemically important and whose failure would have a significant impact on the economy and the rest of the financial system. A D-SIB buffer promotes higher capital strength of banks and lowers their probability of failure.
IRB approach	Internal ratings-based approach to credit risk. One of the two methodologies available to calculate RWA for banks' credit risks, IRB involves the use of inputs from credit models developed internally by the bank to a formula specified by the Reserve Bank. The Reserve Bank must accredit a bank to use the IRB approach, and approve the models it uses in its RWA calculation.
IRB scalar	A parameter in the IRB approach to credit risk set by the Reserve Bank. The IRB scalar adjusts the level of conservatism in the IRB approach's calibration.
Leverage ratio	A measure of a bank's financial strength that does not attempt to adjust for risk. A leverage ratio measures a bank's capital levels relative to a non-risk based measure of its financial position, such as the accounting value of its assets. While both a leverage ratio and the risk-based capital ratio use the same definition of capital, they contrast in what they measure this capital against (e.g. assets (accounting definition) versus RWA respectively).
Minimum capital requirements	A minimum capital ratio requirement. If a bank has a capital ratio below the minimum requirement, it is likely to be in financial distress from a prudential perspective, and the Reserve Bank would likely seek to place it in a resolution.
Non-performing loans	Generally speaking, non-performing loans are loans that are at risk of not being fully repaid, or where interest on the loan may not be fully paid by the borrower.
Output floor	A limit on the IRB approach. An output floor means that, when determining its capital ratio, the RWA a bank calculates using the IRB approach cannot

	go below a certain proportion of the RWA that it would calculate under the Standardised approach.
Prudential capital buffer	An amount of capital above the minimum capital requirement. A bank that operates with a capital ratio within the prudential capital buffer applying to it would not be in breach of its Conditions of Registration, but it may have restrictions placed on it and be required to rebuild its capital levels over time.
Risk appetite framework	A risk appetite framework enables decisions about the right balance of risk and return. In the context of this Consultation Paper, the Reserve Bank has developed a risk appetite framework to determine settings for its capital framework that strike a balance in its outcomes on financial stability, economic activity and societal welfare.
Risk-weighted assets (RWA)	Risk-weighted assets (RWA) is an adjusted picture of a bank's financial position (e.g. its loan portfolios and other investments, and its operational and market trading activities) that takes into account the risk profile of that financial position.
Standardised approach	Standardised approach to credit risk. One of the two methodologies available to calculate RWA for banks' credit risks, the Standardised approach requires banks to use Reserve Bank-specified tables to determine the risk weights to apply to different types of loans and other assets.
Tier 1 capital	Tier 1 capital consists of CET1 capital and Additional Tier 1 (AT1) capital.
Tier 2 capital	Tier 2 capital, which includes some subordinated debt, is capital that can generally only absorb losses once a bank has already entered into financial difficulty. It is therefore considered of lower quality than Tier 1.