

Regulatory Impact Assessment

RBNZ liquidity requirements for locally incorporated banks – core funding ratio

Executive summary

- 1 When the Reserve Bank introduced the minimum Core Funding Ratio (CFR) of 65% in 2010, it announced its intention to raise it in two steps to 70 and 75 percent, subject to further analysis. This RIA concerns the first increase to 70 percent. The Reserve Bank believes it is advisable to examine the impact of the second proposed increase to 75 percent separately at a later stage this year. Consequently, this RIA explores three options: to leave the CFR at the existing level of 65 percent (i.e. the status quo); to adopt the Basel Committee proposal of a Net Stable Funding Ratio (NSFR); and to proceed as planned with the first increase to 70 percent.
- 2 The underlying rationale for the CFR is the presence of a negative externality and moral hazard. While banks take measures to guard against liquidity risk, they do that on the basis of their own private costs and benefits and do not consider the social costs of their actions. Liquidity problems of one bank, however, can quickly cascade and affect other institutions. More importantly, the expectation that, in the event of a liquidity crisis, public authorities will provide assistance creates the wrong type of incentive whereby excessive risk is taken on.
- 3 The option to leave the CFR at 65 percent was rejected as it would mean a CFR of only marginally more than the average of these last few years. The market failures, the costs of which were exposed by the global financial crisis, would be left largely unaddressed. Indeed, banks have responded well to the introduction of the CFR, with all of them having increased their ratios to at least 75 percent, which has strengthened their resilience against liquidity risk. Leaving the CFR as it is could undermine the progress that has already been achieved and might impact on investor confidence in our banks, particularly as the Basel Committee proposes a significantly higher standard which is likely to be implemented in other countries.
- 4 Adopting the NSFR proposed by the Basel Committee could have some advantages in terms of aligning our regime more closely with that which will apply to our biggest banks at the group level, assuming that it will become the standard in Australia. Although there are strong similarities between the CFR and the NSFR, there are also advantages in maintaining our own CFR. New Zealand is some years ahead of most countries and Basel liquidity deadlines by having already adopted a liquidity ratio and it is arguable that protection against liquidity risk is particularly important in the New Zealand context given our relatively high external debt. Introducing a NSFR now could slow down the progress that has already been achieved, particularly if the Basel timelines were adopted. Moreover, banks have incurred costs to comply with the CFR and a switch to the more complex NSFR would further increase their compliance costs.
- 5 Since all banks already have a CFR of at least 75 percent, increasing the regulatory minimum to 70 percent effectively amounts to enshrining into law the status quo, even when allowing for a 5 percent buffer which banks might want to maintain to guard against fluctuations. Hence, there

should be no direct costs for banks or for consumers from this increase. However, estimates submitted by the banks suggest that the costs associated with a 5 percent increase from 65 to 70 percent are around 5.2 to 11.25 bps¹ in terms of their total funding costs. These costs are not material and their impact on the cost of credit is likely to be minor. In any case, better pricing of risk will have a positive effect on the economy in the long run. Thus, the preferred option is to increase the CFR to 70 percent on 01 July 2011 and to reassess the second increase to 75 percent later on this year.

Adequacy statement

- 6 This RIA has been produced by the Reserve Bank in accordance with the requirements of Section 162AB of the Reserve Bank Act. The Reserve Bank is satisfied that it has been produced in a way that is consistent with the principles of the Code of Good Regulatory Practice.

Status quo and problem

Status quo

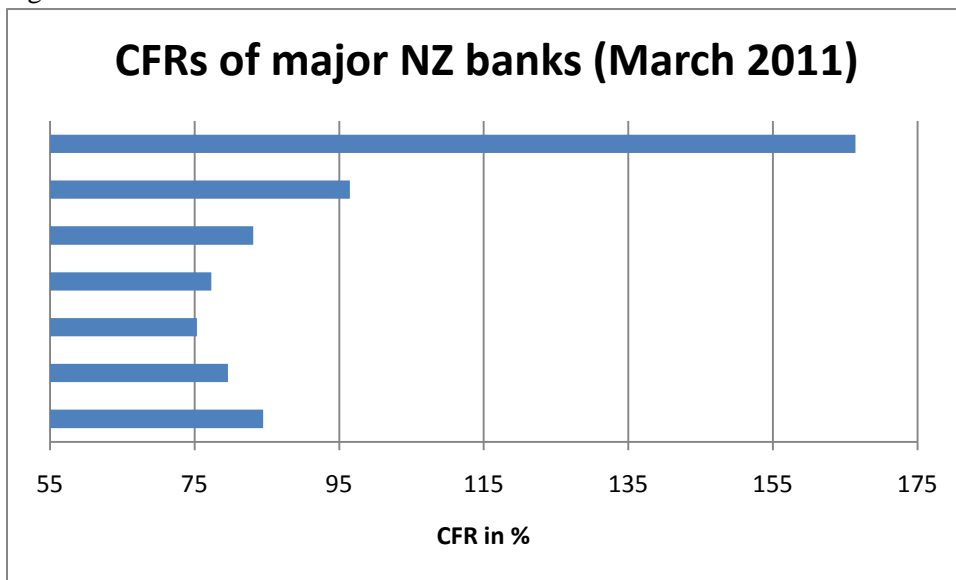
- 7 In 2010, the Reserve Bank introduced a new set of quantitative liquidity requirements for locally incorporated banks: two mismatch measures and a core funding ratio. Development of these measures began before the global financial crisis (GFC) hit, but was accelerated in response to the liquidity issues that emerged during the GFC. Prior to the GFC, New Zealand's major banks had become increasingly reliant on short-term overseas funding. The dangers of this strategy became apparent when, during the GFC, liquidity dried up and the Reserve Bank and the government had to provide liquidity support. The Reserve Bank introduced broader domestic market liquidity measures and the Term Auction Facility, while the government provided domestic and wholesale funding guarantee schemes for eligible institutions. These measures helped banks to maintain access to funding but they came at the cost of increasing moral hazard within the financial system. Hence, they were intended as an emergency response but clearly not as a long-term solution.
- 8 The Reserve Bank's longer-term response consists of ensuring that banks increase their share of more 'sticky' funding to guard against reversals in short-term funding markets, and that they have a sufficient stock of readily liquefiable assets to meet short-term obligations, even in times of severe disruption. The two mismatch measures introduced last year address this latter concern. They are:
- a one-week mismatch ratio of not less than zero percent at the end of each business day; and
 - a one-month mismatch ratio of not less than zero percent at the end of each business day.
- 9 In order to strengthen banks' long-term funding position, the Reserve Bank also introduced a core funding ratio (CFR). The numerator of the CFR is calculated as total funding of more than one

¹ Bps stands for basis points. It is a common unit of measure for expressing changes in interest rates. A 1 percentage point change is 100 bps. Hence, in the example above funding costs increase by 0.05 to 0.11 percentage points.

year maturity plus a proportion of shorter-term non-wholesale funding, where the amount included reduces according to the total amount of funding provided by each depositor. The denominator is total loans and advances. The CFR was initially set at 65 percent and has so far remained at that level. That decision was influenced by pragmatic reasons and bore some relationship to the average over the previous years. Banks were already above that level as they had begun to take measures to extend the term structure of their funding, perhaps also partly in anticipation of regulatory intervention. Consequently, the introduction of the CFR did not have an immediate impact on banks.

- 10 However, the Reserve Bank was very explicit that, subject to further impact analysis, it would further increase the CFR in two steps to 70 and 75 percent respectively. The first increase is scheduled for July 2011, while the second one is being envisaged for July 2012. Banks have already taken steps towards meeting the indicated new regulatory minimum. While one cannot categorically say that banks have increased their CFRs in anticipation of further regulatory increases – since they would most likely have done so anyway given their recent experience with the GFC – it is likely that by clearly stating its intention early on, the Reserve Bank has provided banks with an added incentive to increase their share of retail and long-term funding.

Figure 1



(Source: RBNZ)

- 11 Figure 1 shows that banks are currently comfortably above the 70 percent mark and also at least meet the 75 percent ratio signalled for July 2012, albeit a couple of banks do so only marginally. In practice, however, banks want to hold a small buffer above the regulatory minimum to guard against volatility in the CFR, for foreign exchange rate risk and to signal good prudential arrangements. Assuming that they aim for a buffer of 5 percent, it appears that banks have already made preparations for the anticipated increase to 70 percent but that some banks would have to do a bit more to meet a further increase to 75 percent.

Problem and intervention rationale

- 12 The GFC exposed a number of weaknesses, amongst them banks' liquidity positions. Market mispricing of risk first contributed to inflated asset prices and then to sharp declines in those prices, thus endangering financial stability. The trigger came in the form of losses at highly leveraged financial institutions overseas, whose subsequent fire sales of assets led to further price declines. The panic that had set in meant that financial institutions no longer trusted each other so that interbank and wholesale lending markets froze up. The interconnectedness of financial institutions, high leverage and overreliance on short-term wholesale funding were the prime facilitators spreading liquidity problems through financial systems across the world.
- 13 Banks, of course, have an incentive to ensure that they can meet their short-term obligations at the lowest possible cost. Holding insufficient stocks of liquid funds exposes them to short-term funding risk, which could mean that they might have to pay an elevated cost to obtain the funding they require when markets become stressed. It is therefore in their own interest to manage liquidity efficiently. However, when managing their liquidity requirements banks only take into account their own, private costs and benefits and not those of the wider financial system (social costs and benefits). But the liquidity problems of one bank can very quickly cascade to other banks and thus endanger the stability of the financial system. While banks can ignore the effect their actions have on the financial system, the Reserve Bank, on the other hand, is tasked with promoting the maintenance of a sound and efficient financial system and has to consider these system-wide impacts and the costs they could impose on society.
- 14 This negative externality is exacerbated by the presence of moral hazard. If banks assume that downside risks are capped by the availability of government assistance, they may be prepared to take risks they would not otherwise. Short-term funding, which is generally cheaper than long-term funding, carries a greater liquidity risk as banks have to roll over their funding more often, exposing them to short-term funding risk. Aside from the fact that this risk tends to get overlooked when times are good and there is sufficient funding available, banks may not adequately provision for stress in short-term funding markets and assume instead that help will be available if things go wrong. And investors may not fully charge banks for the higher liquidity risk, because they also assume that authorities step in if there is a problem. It is, therefore, rational for banks to take on an excessive amount of cheaper short-term debt and for lenders to provide it at cheaper rates than they would otherwise. The cost on the rest of society is that public authorities have to step in and provide liquidity support when there is stress in funding markets.
- 15 Market failures such as negative externalities or moral hazard are a necessary but not a sufficient condition for intervention. An intervention also has to be able to improve on the market outcome and produce the highest net benefit. The previous RIA already showed that introducing a CFR can improve on the market outcome by reducing the likelihood of banks running into liquidity problems which might require authorities to step in. The purpose of this RIA is to assess the costs and benefits of raising the CFR to 70.

Objectives

- 16 The overarching objectives stated in last year's RIA are still valid. They are:
- To ensure that banks can withstand a liquidity strain of some severity;
- which is to be achieved by each bank:
- controlling its funding mismatch;
 - maintaining a stock of highly liquid assets to handle contingencies; and
 - ensuring it has reliable and diversified funding sources.
- 17 Furthermore, there are more specific objectives pertaining to the CFR. These are:
- To set the CFR at an appropriate level, taking into account moral hazard and the burden imposed on New Zealand banks.
 - To give banks stability as regards the CFR.
 - To increase market confidence in the soundness of New Zealand banks.
- 18 In pursuing these objectives, the Reserve Bank will give regard to a range of factors and constraints, such as international regulatory aspects. Since the introduction of the CFR in New Zealand, the Basel Committee on Banking Supervision (BCBS) has proposed new liquidity standards. These proposals are broadly in line with our own liquidity measures and the Reserve Bank will continue to endeavour to ensure that our standards are as closely aligned with those of the BCBS as possible.
- 19 Given the more advanced state of implementing liquidity standards in New Zealand than in many other countries, the Reserve Bank seeks to build on the measures already introduced. This RIA takes the previous (2010) RIA as the starting point. In other words, fundamental alternatives to the CFR are outside the scope of the present exercise. Not only would completely new liquidity standards or measures undermine regulatory stability, but the international level, as evidenced by the BCBS, is taking a very similar path to that adopted in New Zealand.
- 20 The Reserve Bank will also give due consideration to any adverse impact that the signalled increases in the CFR could potentially have on the rebuilding effort in Christchurch and Canterbury after the devastating earthquakes there. A priori, it is unlikely that enshrining into law a 70 percent CFR, i.e. the status quo, would represent a hurdle for the rebuild.

Consultation

- 21 The intention to increase the CFR to 70 and 75 percent has been well signalled by the Reserve Bank. Since the implementation of the CFR last year, the Reserve Bank has been in regular contact with the banks regarding the envisaged future increases.

- 22 In April 2011 the Reserve Bank wrote to all banks about the planned increase asking for concrete and detailed feedback on the consequences of the first increase in particular. Banks responded with useful information which forms the basis of the analysis in this RIA. No banks raised any objections to raising the CFR to 70 percent.

Options

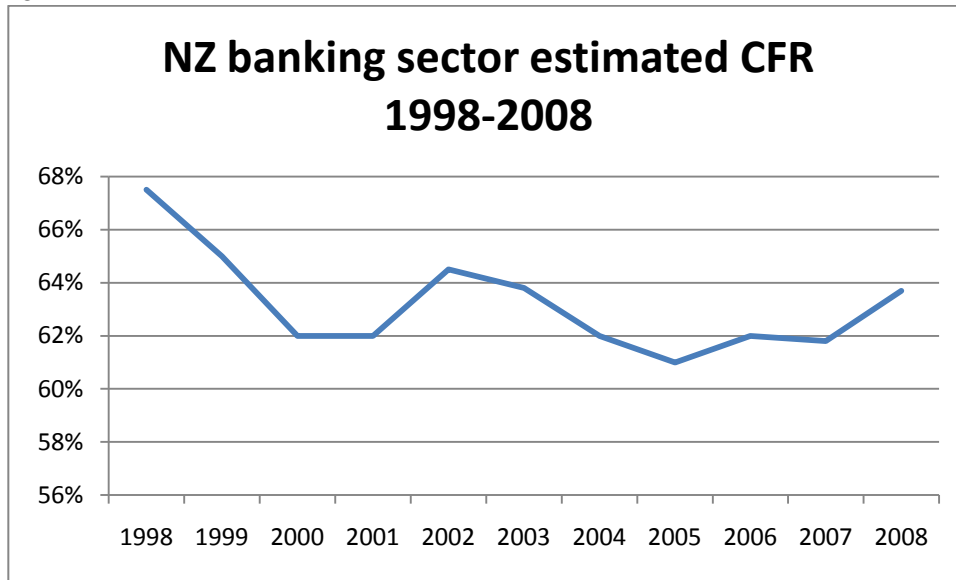
- 23 As mentioned above, the starting point for this RIA is last year's RIA on the introduction of the CFR at the initial level of 65 percent. In other words, the purpose of this RIA is to analyse a possible increase to 70 percent and other alternatives against the baseline of a 65 percent level. The impacts of a possible further increase to 75 percent will be analysed at a later stage.

Option A – status quo

- 24 The first option is to leave things as they are. That would mean leaving the CFR at 65 percent and abandoning the scheduled increase. Banks would not have to take any further measures to increase their share of retail or long-term wholesale funding. Indeed, some banks may opt to let their CFR drop to around 70 percent (assuming they will want to maintain a 5 percent buffer).
- 25 On the plus side, this would minimise any further regulatory costs on banks and might even have a small negative impact on lending rates. The latter, however, is likely to be minimal, being in the region of 4 basis points (bps) for banks that reduce their CFRs by 5 percent to 70 percent². On its own, this impact, if it is fed through to lending rates and not used for increasing banks' profit margins, is unlikely to provide much of an economic stimulus, especially in an environment of subdued demand in which consumers are paying down debt. Increasing consumption by increasing credit growth is anyway unlikely to be sustainable in the medium to long term.
- 26 As already pointed out in the earlier paragraphs, the existing regulatory minimum level of the CFR was influenced by pragmatism and broadly reflected the average over the previous decade of approximately 63 percent (see Figure 2). As a result, no bank had to suddenly increase their core funding when the CFR was introduced in April last year. But a CFR reflecting the then prevailing status quo is unlikely adequately to address the above mentioned market failures.

² See Table 2 . The main assumptions underlying these estimates are that: funding spreads remain unchanged, i.e. that there is no sudden global increase in relative demand for either short term or long term funding, and that the present composition of core funding is preserved.

Figure 2



(Source: Reserve Bank estimates)

27 The graph in Figure 2 is estimated from Reserve Bank data going back to 1998. Unfortunately, there is insufficient data to backcast it to the period prior to 1998. A rough estimate based on available data from the 1980s suggests that at the end of that decade the CFR could have stood at 90 percent, implying that it fell by about 20 percent to under 70 percent during the 1990s. It is noticeable that the CFR fell from 2002 to 2005, a period characterised by strong credit growth, a drop in the share of retail deposits as a funding source and an increase in the share of short-term wholesale funding from overseas. The subsequent GFC demonstrated the downside of becoming overly reliant on short-term overseas funding and the real risks involved which ultimately culminated in authorities (i.e. the taxpayer) having to step in with liquidity support. A CFR of 65 percent would mean leaving it at a level more or less determined by the banks given its reflection of last year's status quo. While it is slightly higher than in the mid-2000s, it would mean relying on the banks to take any further action to improve their resilience against liquidity risk.

28 The problem definition, however, already explained why such a market solution may not work as well as intended. The combination of banks maximising their own (private) net benefit as opposed to the (bigger) social net benefit and moral hazard, which protects them from having to bear the full costs of any liquidity stress, leads to a suboptimal market outcome. Maintaining the status quo would amount to foregoing the social benefits associated with dealing with these market failures.

Option B – Fixing the CFR at 65 percent and implementing Basel III liquidity proposals

29 This option foresees keeping the current CFR of 65 percent and implementing the upcoming Basel III requirements. Similar to the liquidity requirements already introduced in New Zealand, the Basel Committee proposes a short-term mismatch ratio, called the Liquidity Coverage Ratio (LCR), and a Net Stable Funding Ratio (NSFR) to improve long-term resilience against liquidity shocks.

30 The NSFR is broadly similar to our CFR. It is calculated as follows: available amount of stable funding/required amount of stable funding ≥ 100 percent. The numerator of this ratio is calculated by applying weightings in the following way:

- 100 percent of total tier 1 and 2 capital and preferred stock
- 100 percent of deposits with a contractual maturity of > 1 year
- 80-90 percent of retail and SME deposits with maturity < 1 year
- 50 percent wholesale or large corporate deposits < 1 year
- A small percentage of undrawn committed and uncommitted credit lines, some of which are at national discretion

The denominator is made up of a weighted sum of the bank's assets, with the weightings reflecting their liquidity characteristics. The weightings for the main assets are as follows:

- 0 percent cash; securities < 1 year or those with an offsetting reverse repo transaction; loans with an irrevocable right to call
- 20-100 percent corporate bonds and covered bonds depending on liquidity profile
- 65-100 percent retail and SME loans and mortgages depending on type and maturity
- 50-100 percent loans to corporates
- 100 percent loans to financial institutions without an irrevocable right to call

31 For reference, our CFR includes the following in the numerator ('core funding'):

- total funding with a maturity of more than one year
- funding with a maturity of less than one year that is not raised from financial institutions or by issuance of tradable debt securities, with the percentage to be included depending on the total funding from each provider of funds as follows:

Table 1

Size band	Up to \$5mn	\$5mn to \$10mn	\$10mn to \$20mn	\$20mn to \$50mn	Over \$50mn
Percentage to be included in core funding	90%	80%	60%	40%	20%

32 The denominator of the CFR is total loans and advances. Compared to the NSFR, the CFR is less complex: in particular, the assets against which core funding is required are restricted to loans and advances, although all included at 100 percent. It is estimated that a 100 percent NSFR translates into a CFR of approximately 80-90 percent.

33 Not being the home regulator of internationally active banks means that the Reserve Bank of New Zealand does not have to implement the Basel Committee liquidity proposals. Our major banks,

however, are owned by Australian parent banks where it is likely that the LCR and NSFR requirements, tailored to Australian needs, will apply at the banking group level. Implementing the Basel requirements in New Zealand would therefore be an obvious alternative. However, there are a number of points worth considering.

- 34 First of all, New Zealand might find it difficult to implement the LCR due to the lack of government debt which is one of the key liquid assets prescribed by the Basel Committee. Although there are proposals for eligible countries being allowed to use alternatives, the already established mismatch ratios are better suited to New Zealand market conditions. Adopting the NSFR but not the LCR might be seen as inconsistent.
- 35 Second, implementing the NSFR, or its Australian version, could constrain our flexibility for improving bank resilience against liquidity risk. The timeline likely to be adopted by the Basel process is significantly longer than our own schedule. Compared to our proposed two-step increase in the CFR to 75 percent by the middle of 2012, the Basel Committee envisages the NSFR to become fully binding by the beginning of 2018. Adopting the Basel NSFR could risk undermining the progress that has already been achieved in making banks more resilient against liquidity stress and in improving the confidence of lending to New Zealand banks.
- 36 This latter aspect could be particularly important for New Zealand. Over the years, our economy has become highly dependent on foreign borrowing. Our net international investment position is amongst the highest in the world and on a par with that of Greece, Portugal and Spain³. Unlike those other countries, government debt accounts for a fairly small proportion of gross external debt and the majority of our foreign debt is intermediated through our banks, who in 2008 held about 60 percent of total gross external debt or the equivalent of 80 percent of GDP. Approximately 40 percent of New Zealand's foreign liabilities are held in the form of short-term debt, thus exposing New Zealand and its banks to changes in the availability or cost of overseas borrowing. Addressing liquidity rollover risk is, therefore, particularly important in the New Zealand context. A change in the policy or envisaged path forward could jeopardise the progress that has already been made, and have a negative effect on the confidence international lenders have in New Zealand banks.
- 37 Another drawback of abandoning the CFR in favour of the NSFR is the regulatory inconsistency it would introduce. Although there are significant similarities between the two ratios, banks have so far been preparing for a CFR and its already signalled further increases. Any compliance costs they have incurred as a result would be lost. Indeed, overall compliance costs would increase as new, additional compliance costs would be incurred.
- 38 A switch to the NSFR could also have some implications for banks' costs of meeting the liquidity funding requirement. Having to increase their share of long-term funding at the same time as there is increasing global demand for that type of funding could mean that banks might have to pay more for it.

³ All figures here are from D. Steenkamp: 'New Zealand's imbalances in a cross-country context', RBNZ Bulletin, December 2010.

- 39 Reserve Bank analysis suggests that the costs of requiring banks to have an NSFR of 100 percent when translated into a CFR of approximately 80-90 percent could be at least 160 bps over the OCR. While this is only 10 bps higher than for a CFR of 70 percent and not prohibitive as such, one of the key underlying assumptions of these calculations is that funding spreads remain the same in the face of an increase in demand for long-term funding. In reality, it is unlikely that this will be the case, especially when there is a global increase in demand. Higher demand, of course, should trigger a supply-side response, but it is likely that at least initially the cost of long-term funding will go up. Therefore, the spread of 160 bps over the OCR, or 10 bps more than a 70 percent CFR would imply, should be viewed as a low estimate, and the real costs of effectively raising the CFR to 80 or 90 percent may be higher, in particular if it coincides with increases in liquidity ratios across the world.
- 40 These costs in terms of loss of regulatory consistency and higher funding costs for banks would be mitigated by aligning our regulatory systems with that which will apply at the group level of our major banks. In any case, if the NSFR applies at the group level and parent banks decide to impose it on their subsidiary banks, then a CFR that is lower than the one implied by the NSFR may not be binding. Banks would still incur the costs of meeting the NSFR requirements, only now not because of Reserve Bank but due to parent bank requirements.
- 41 On the other hand, in such a scenario banks would effectively retain a buffer over the CFR minimum. This buffer might come in handy when there is liquidity stress as banks could reduce the amount of core funding without breaking the regulatory minimum in New Zealand.
- 42 As this discussion shows, deciding whether to stay the course or adopt the NSFR requires some judgment. At this point in time, there may be benefit in retaining the flexibility that a New Zealand solution in the form of a CFR would entail. New Zealand's high NIIP and our banks' heavy reliance on international credit markets, especially short-term borrowing, makes our banks and economy particularly vulnerable to liquidity shocks. It is, therefore, particularly important for New Zealand and its banks to strengthen resilience against liquidity risk already now and not in a few years' time. The CFR has been an effective tool for addressing our vulnerability to liquidity shocks and allows us to be responsive to New Zealand needs.

Option C – increase in CFR to 70 percent

- 43 This option is essentially what the Reserve Bank has already signalled: a step increase in the CFR to 70 percent in July 2011. At this stage it is considered advisable to leave analysing the proposed second increase to 75 percent in mid-2012 to later on this year. This will ensure it is done thoroughly on a stand-alone basis and benefits from more up to date information.
- 44 Since all banks are already above the 70 percent ratio, it could be argued that there are no further costs from the first increase. Nevertheless, for the purpose of this RIA we investigate the costs associated with increasing the CFR by 5 percent. Thus, we assume that the only reason banks are currently above 65 percent is in anticipation of an increase in the ratio and not of their own volition or due to potential Basel requirements at the group level.

45 The methodology on which the cost estimates rest consists of establishing the spread of long-term wholesale or retail funding over short-term funding and applying that spread to 5 percent of current funding. In other words, it is the additional cost associated with obtaining funding from core funding sources instead of short-term funding. The increase in the funding cost of those 5 percent of funding is then added into the overall cost of funding to calculate its incremental increase, i.e. the change in the total cost of funding from substituting 5 percent of total funding that is short-term with core funding. The analysis is carried out with information supplied by the banks and Reserve Bank internal data and estimates.

46 The following is an illustrative example which should not be attributed to any particular bank.

Let us assume Bank X has total assets of 100 bn. Raising the CFR by 5 percent would require Bank X to swap 5bn of short-term debt for the same amount of long-term funding. Let us further assume that the spread of wholesale funding over short-term funding is 100 to 185 bps. Then the increase in the cost of funding would be \$ 50 to 92.5m.

Calculation: $5\text{bn} * 100 \text{ bps} = 50\text{m}$; or $5\text{bn} * 185 \text{ bps} = 92.5\text{m}$

47 Reserve Bank internal analysis suggests that the cost of funding for banks is 150 bps over the OCR for a CFR of 70 percent (see Table 2). The table also shows that the marginal increase in the cost of funding is about 6 bps when increasing the CFR from 65 to 70 percent.

Table 2: The Core Funding Ratio and the (Marginal) Cost of Bank Funding

Core funding ratio (percentage)	Cost of funds (over Official Cash Rate)
55	136
60	140
65	144
70	150
75	154
80	158
90	162

(Source: Reserve Bank)

48 Feedback received from banks broadly corroborated these figures. The consultation on the increase in the CFR to 70 percent asked banks to quantify the costs associated with such an increase. All banks confirmed that they were already well above the proposed 70 percent minimum limit. Those that had calculated the costs of a five percent higher CFR did so largely along the lines as set out above. That is, they provided information on the cost of long-term funding, the spread they are paying for long-term funding over short-term funding, the increase in

cost in dollar terms and the marginal increase in their total funding costs. Some banks provided detailed calculations while others simply submitted their cost estimates.

- 49 Instead of using averages, we prefer working with ranges. It is more transparent in terms of the information we received and offers some protection against spurious accuracy. It should be noted that all cost estimates are based on current or historic data and may or may not hold for the future. Indeed, to the extent that the cost estimates are based on average funding costs of the recent past, which was a period of elevated funding costs due to the GFC, they might even err on the side of caution.
- 50 With those caveats in mind, banks reported the costs of term wholesale funding to range from 115 bps to close to 200 bps. The spread over short-term debt of course varies but one bank suggested that a rough estimate of the cost of short-term funding would be around 15 bps, thus giving a spread of between 100 bps to 185 bps. In terms of the marginal increase in total funding costs, this ranged from 5.2 bps to 11.25 bps. Three of the big banks reported cost increases in dollar terms, which ranged from \$27.5m to around \$65m, depending on their total assets, i.e. the higher the denominator the higher the increase in funding costs when expressed in dollars.
- 51 The fact that banks' own calculations are broadly in line with our estimates should give us some added confidence in the accuracy of these increases in funding costs. The main cost estimate is the marginal increase in the cost of funding of between 5.2 and 11.25 bps. While one bank said that an increase in funding costs of this size would not be material, another suggested that it would pass these costs on to its customers. It should be recalled that all banks are already above the proposed 70 percent limit, so that there are no reasons why there should be an increase in borrowing costs for consumers as a result of this policy change.
- 52 The main benefits from a higher CFR are to reduce the moral hazard and to lower the probability of public authorities, i.e. taxpayers, having to provide liquidity support. It is difficult to estimate the benefits from a CFR in isolation since it is part of a suite of policies all aimed at strengthening banks' resilience against solvency and liquidity risk. Ultimately, these measures aim to reduce the probability and severity of financial crises, whose costs can be significant. Consequently, most studies that have tried to estimate the benefits of tighter liquidity standards have done so in tandem with increases in capital adequacy ratios. Some of these studies predate the Basel NSFR proposals and assumed an increase in the holding of liquid assets of 25 percent. One study carried out in Canada concluded that the combined benefits from tighter liquidity and capital adequacy ratios could be up to 13 percent of GDP (in Canada). This result may not be directly applicable to New Zealand but it might serve as an indicator of how sizeable the benefits can be.
- 53 On balance, the Reserve Bank considers that the benefits in terms of reducing the moral hazard and banks' susceptibility to liquidity stress outweigh the costs associated with raising the CFR to 70 percent. As demonstrated above, the costs are far from prohibitive and banks are already well above the new limit. The higher CFR should lower the probability of taxpayer support being required. Moreover, a more accurate pricing of risk should contribute to lowering the probability

and severity of future systemic crises, and to making GDP growth more sustainable in economic terms.

Preferred Option

- 54 The preferred option for the Reserve Bank is Option C. That is, to raise the CFR to 70 percent from 01 July 2011. This effectively amounts to enshrining the status quo into law. As such, there should be no immediate impact or cost on banks. In any case, the estimates calculated above show that the costs associated with substituting 5 percent of short-term funding with an equivalent amount of long-term funding are manageable. Some banks argue that they would pass on these costs to their borrowers, while others deem them not significant enough to warrant pass through.

Implementation

- 55 As previously signalled by the Reserve Bank, the increase in the CFR to 70 percent takes effect on 1 July 2011. This will be done through a change in the conditions of registration. As all banks are already well above the new limit, no implementation issues are expected.

Monitoring and Evaluation

- 56 Not least due to the need for further analysis on the proposed increase to 75 percent, the Reserve Bank will continue to monitor closely the effect the CFR has on banks' liquidity positions and funding costs. Banks' CFR positions are constantly monitored by the Reserve Bank, as are developments in long and short-term funding markets. The Reserve Bank will also monitor the impact of Basel III (NSFR) requirements on New Zealand registered banks.
- 57 It is common practice for the Reserve Bank to review its policies from time to time. The effectiveness and efficiency of the CFR will also be reviewed when sufficient time has lapsed or developments would make a review worthwhile. More detail on this will be given as part of the additional analysis on the proposed increase to 75 percent.

Annex 1: Impact summary

Template:	
<ul style="list-style-type: none"> • What is the problem under consideration? 	<p>Due to moral hazard and externalities, banks may not become too heavily reliant on short-term wholesale debt. This exposes them to rollover risk when wholesale funding markets become stressed, a situation which arose during the global financial crisis. The introduction of the core funding ratio last year aims to address this issue by enhancing banks' resilience against liquidity (rollover) risk. The existing limit of 65 percent reflects recent historical averages and is unlikely to be sufficient, which is why the Reserve Bank has stated on numerous occasions is intention to increase it in two steps to 70 and 75 percent.</p>
<ul style="list-style-type: none"> • Why is intervention by the Bank necessary? 	<p>The Reserve Bank is tasked with promoting the maintenance of a sound and efficient financial system, which includes taking into account systemic liquidity problems. The presence of moral hazard and negative externalities and the liquidity problems which arose during the financial crisis suggest that regulatory intervention by the Reserve Bank can improve on the market outcome.</p>
<ul style="list-style-type: none"> • What are the objectives? 	<p>The overarching aim is to ensure that banks can withstand a liquidity strain of some severity. More specific objectives are: to set the CFR at an appropriate level taking into account moral hazard and the burden imposed on banks; to give banks stability as regards the CFR and; to support market confidence in the soundness of New Zealand banks.</p>
<ul style="list-style-type: none"> • What is the preferred option and what other policy options have been considered? 	<p>The preferred option is to increase the CFR on 1 July 2011 to 70 percent. Other options considered were the status quo (i.e. leaving the CFR at 65 percent) and adopting the Basel Committee requirements, i.e. the net stable funding ratio.</p>
<ul style="list-style-type: none"> • Who are the affected groups? 	<p>Locally incorporated banks</p>
<ul style="list-style-type: none"> • What are the monetised costs and benefits in NPV terms (low, high and best estimate) and by affected group? 	<p>A marginal increase in banks' funding costs of between 5.2 and 11.25 bps. This approximately translates into funding cost increase of between \$ 27.5m to \$65m for the big NZ banks.</p>
<ul style="list-style-type: none"> • Other key non-monetised costs and benefits by affected group 	<p>The main benefits are in terms of a better pricing of risk (i.e. reduction in moral hazard), greater resilience against rollover liquidity risk and enhanced market confidence in New Zealand banks.</p>
<ul style="list-style-type: none"> • Key assumptions/sensitivities/risks 	<p>A key assumption is the availability and cost of long-term wholesale funding. The cost calculations assume a spread of long-term over short-term wholesale funding of 100 to 185 bps.</p>
<ul style="list-style-type: none"> • (If no monetisation/quantification) Why is a monetised CBA impractical or disproportionate? 	<p>The RIA contains appropriate quantification of the costs. Further quantification or quantification of the benefits would have been disproportionate given the complexities involved.</p>
<ul style="list-style-type: none"> • Other information 	