

PAPER FOR Financial System Oversight Committee
FROM Financial Policy (Tony Booth)
DATE OF MEETING 6 December 2017
SUBJECT International comparison of capital ratios (PwC report)
FOR YOUR Information

1. The New Zealand Bankers' Association (NZBA) commissioned PricewaterhouseCoopers (PwC) to compare New Zealand bank capital ratios to ratios in other countries. The report, which is attached, was published on 15 November.
2. The rules for calculating capital ratios differ across countries. PwC has attempted to work out how New Zealand bank capital ratios would compare to:
 - a. bank capital ratios in other countries if all ratios were calculated under the same set of "standard" international rules; and
 - b. bank capital ratios in Australia if New Zealand banks used the rules applying in Australia to calculate the ratio (and similarly for Canada, Germany, Japan, Singapore, Switzerland, the UK, and the US).
3. PwC's major finding is that by switching to internationally comparable rules, the average Common Equity Tier 1 ratio of New Zealand's four largest banks would rise from 10.3% to 16.3%, and the Total Capital ratio would rise from 13.2% to 20.6%.
4. This would make New Zealand banks' capital ratios relatively high by international standards. This would remain true, PwC concludes, if banks here switched to the rules applying in Australia, Canada, Germany, Japan, Singapore, Switzerland, the United Kingdom, or the United States, rather than a quasi-pure international standard.
5. The Reserve Bank has argued in the past that our regulatory framework is relatively conservative. For example, we have frequently highlighted the adjustments we have made in our capital standards to increase capital requirements for residential mortgages and farm lending. So it is not surprising that capital ratios would increase if banks moved to a more internationally comparable calculation. However, the size of the increase reported by PwC is surprising.
6. We seek the Committee's views about how to respond to the PwC findings.
7. An important consideration is the relevance of the findings to the Capital Review.

8. One of the principles of the capital review is that capital requirements for New Zealand banks should be seen as conservative relative to those of international peers. The PwC study is probably a response to that principle, and implicitly concludes that it is already satisfied. The unstated corollary is that there is no need to increase minimum capital ratios or regulatory buffers.
9. A key caveat is that the PwC study does not attempt to determine what is the *appropriate* capital requirement for New Zealand, one reflecting the particular risks present in the New Zealand environment, only what reported capital ratios would be under a particular set of rules (and assumptions about supervisory actions).
10. In this context, the PwC report arguably answers the wrong question. It makes little sense to calculate what the capital requirement would be for a portfolio of New Zealand mortgage exposures if it was instead a portfolio of Swiss mortgage exposures; it is *not* a portfolio of Swiss mortgage exposures, and New Zealand is not like Switzerland.
11. Another consideration is the amount of time and resources we are prepared to commit to analysing the PwC report.
12. We have some reasons to believe that the results reported by PwC are biased upward (see the end of this document for a short list). One response would be to commission our own work to quantify the bias. There is some precedent here: APRA did its own comprehensive comparison of capital ratios, following a PwC comparison commission by the Australian Bankers' Association. But a thorough exercise to determine the extent of bias is likely to be time-consuming and could delay further work on the capital review.¹
13. A further consideration is the choice of vehicle for any response to the PwC findings. We could provide a response by commenting on the PwC study in the forthcoming "ratio" capital review consultation paper. Alternatively, we could create a standalone response for communication to the NZBA or for publication.

Sources of possible upward bias in the PwC findings

- The comparisons exclude "pillar II" capital adjustments, D-SIB requirements, counter-cyclical capital buffer requirements, and capital requirements for interest rate risk in the banking book. The comparisons do not therefore reflect overall capital requirements, and may be significantly biased. For example, the exclusion of Pillar II adjustments is likely to overstate differences in overall capital requirements because New Zealand has chosen to make adjustments to its capital requirements through Pillar I (the core capital standards), whereas other countries make significant use of Pillar II adjustments (often imposed by the supervisor on a bank-by-bank basis).

¹ One reason for uncertainty about the extent of biases is the lack of published sensitivity tests in the report, i.e. reporting of the effect on comparisons if some of PwC's assumptions were varied. For example, it is not possible to determine, from the report, the effects of varying the loss-given-default estimate for residential mortgages (PwC used a flat 15% assumption).

- The comparisons make no adjustment for concessionary risk weights for sovereign and SME lending in the European Union. Shifting EU banks to an internationally comparable basis in these areas would – we expect – lessen differences in the total capital requirement.
- The comparisons do not account for differences in economic and institutional environments across countries. For instance, PwC assumed that a loss-given-default (LGD) rate of 15% would be appropriate for residential mortgages, in the absence of the LGD requirements the Reserve Bank currently imposes. As we understand it the PwC assumption is based on LGDs in other countries. Differences between countries, such as widespread State guarantees of home loans in overseas jurisdictions (which would lower the LGD), are not controlled for.
- In adjusting New Zealand requirements, it is mostly assumed that if regulatory overlays or restrictions were removed then the outputs of banks' models would be accepted without challenge. For instance, it is assumed that New Zealand banks would be able to use their internal models, without any changes, to calculate market risk capital requirements for their trading books. It is not clear to us that overseas regulators would always accept banks' models without challenge.
- The adjusted figures for New Zealand banks – to make them internationally comparable – were based on PwC requirements but were estimated by the banks themselves. PwC reviewed the banks' estimates for reasonableness, but we have very little information about exactly how the estimates were arrived at. Information we have previously obtained from three of the four banks ^{RBNZ s105} suggested that internationally comparable capital ratios would not be as high as those reported by PwC (see [Doc #6651566](#) from page 3).
- Where adjustments were made to figures for overseas banks – also to make them internationally comparable – PwC generally relied on reports from the Basel Committee on Banking Supervision's Regulatory Consistency Assessment Programme (RCAP) to identify differences between national rules and the pure Basel standards. While those reports are reasonably thorough, they are focussed on areas in which countries have *weaker* requirements than the pure Basel standard, and we are not sure that they pick up all important differences in international practices (e.g. adjustments required by supervisors to internal models before they are approved). The RCAP reports are also, in some cases, quite out of date.
- The Australian Bankers' Association commissioned PwC to carry out a similar exercise in Australia in 2014, in response to the Financial System Inquiry. That exercise concluded that moving to internationally comparable rules would increase the capital ratios reported by large Australian banks from 8.8% to 12.7%, roughly a 4 percentage point increase.² APRA conducted its own comparison and concluded that the increase was more like 3 percentage points.³

² See page 8 of the final PwC report here:

https://www.bankers.asn.au/images/uploads/ArticleDocuments/219/ABA_International%20comparability%20of%20capital%20ratios%20of%20Australias%20major%20bank.pdf

³ See page 6 of APRA's report here: <http://www.apra.gov.au/adi/PrudentialFramework/Documents/150710-International-capital-comparison-information-paper.pdf>

