MEMORANDUM FOR	FSO Committee
FROM	Financial Policy (Author: Charles Lilly)
MEETING DATE	24 July 2018
SUBJECT	**Capital Review: Quantitative Impact Study**
FOR YOUR	Information

It is recommended that the Committee:

1. **Note** that following the five in-principle decisions we made on changes to the calculation of banks' risk-weighted assets (the "denominator" component of the Capital Review), we plan to undertake a quantitative impact study to understand the effects of these changes on the four IRB banks in August.
2. **Note** that the Quantitative Impact Study (QIS) is designed to supplement the prudential capital reporting we already receive, and will contain additional information that will inform future policy work such as potential alignment with APRA's revised capital framework.
3. **Note** that we plan to host a workshop for all banks in early to mid-August to talk through the QIS, the in-principle decisions made so far, and our assessment of the PwC report on international capital comparisons.
4. **Note** that the IRB banks will have six weeks to complete the QIS, with results due by the end of September.

Background and aims of the QIS

1. On 6 July 2018 the Bank released five in-principle decisions on proposed changes to the calculation of risk-weighted assets (RWA):

   - Banks will still be allowed to use the IRB approach to measure credit RWA.
   - Banks will use the standardised approach for externally-rated exposures (e.g. sovereigns, banks, and some large corporates).
   - All banks will use a standardised approach to calculating operational risk RWA, the new Basel 'Standardised Measurement Approach'.
   - IRB banks are required to disclose RWA and capital ratios under the standardised approach ('dual reporting').
   - An RWA floor will be imposed on IRB banks, as a (to be determined) proportion of the RWA calculated under the standardised approach ('output floor').

   In announcing these decisions, we undertook to complete a Quantitative Impact Study (QIS).

2. The primary aim of the QIS is to assess the impact of the in-principle decisions and inform future calibration issues in the remaining parts of the Capital Review, for example the level of the output floor. The QIS will collect more detailed credit RWA information than is currently available in prudential reporting or from other sources. We see it as primarily a 'data dump' that will enable us to complete a desktop assessment of the impact of various settings of, for example, the output floor level, or

setting the requirements at differing levels of granularity. As such, the QIS will inform the 'big P' framework and calibration issues, assist in the subsequent cost-benefit analysis and so on, and therefore to bring the Capital Review to a conclusion.

3. Note however, that we have also signalled – but parked until next year – further 'small p' issues, such as considering some of the proposed changes to APRA's capital framework (asset class definitions and so on). The material we will gather as a part of the QIS process will also enable us to be better informed about 'small p' policy issues in the capital framework that will inevitably need to be addressed in the implementation of the Capital Review.

4. As an example, we have long intended to tidy up the capital treatment of residentially secured business loans and set clearer boundaries between the Residential Mortgage asset class and the Retail SME/Corporate SME asset classes for IRB banks. We also want to improve the consistency of capital treatments for commercial property by IRB banks.[1] These and other 'small p' issues will be addressed in 2019 and beyond.

Specifics of the QIS

5. The Bank already collects large amounts of data on banks' RWA through the Capital Satellite of the Balance Sheet survey, which we can use as a first step in estimating the impact of the framework changes. However, as this reporting is designed around the existing capital framework it does not provide us with the complete picture needed to understand the full impact of the in-principle decisions and to inform subsequent policy work. As a result we need to supplement this existing reporting with information in a number of key areas:

6. **Dual reporting**: IRB banks currently produce "best endeavours" estimates of their credit RWA under the standardised approach as part of the Capital Satellite survey. However, we do not have a good sense of the robustness of these calculations, and they are not provided at a granular enough level to allow us to meaningfully map between the BS2B and BS2A methodologies. The QIS will provide a more complete picture of how the IRB banks' BS2B exposures slot into the BS2A asset classes. As part of this, we will collect more detailed breakdowns of the on and off-balance sheet components of banks' credit exposures, given this is one of the main points of difference between the two methodologies. We will also ask banks for system and process cost estimates of dual reporting. Our experience is typically that we do not get detailed and reliable information from banks of this nature: outsourcing and OBR are both recent examples of this. However, it is important that we ask and work with the banks to get the best information possible, as it will be an important input into the final assessment.

7. **Externally rated exposures**: our current capital reporting on large corporate exposures combines both externally rated and unrated counterparties into one group. The QIS will ask banks to separately identify and report RWA information on those large corporate counterparties with external ratings. We will also seek qualitative information on banks' rating processes where counterparties have an external rating, e.g. what additional factors (subordination, parental support, collateralisation etc.) banks take into account when determining risk grades, before finalising the exact nature of the standardised approach we will require for these exposures.

RBNZ s105 [redacted]

8. **Commercial property**: as noted above, the current IRB approach is inconsistently applied across the four IRB banks, meaning that the current Capital Satellite reporting does not provide a good basis to assess across banks the RWA impact of different types of output floor (e.g. an output floor applying at the asset class level). In addition to requiring this comparable commercial property reporting from IRB banks, we will also seek breakdowns of their portfolios by commercial property for development or for investment, in line with APRA's proposed segmentation. This will help inform any subsequent policy work on aligning our IRB framework with APRA's new framework.

9. **Residential mortgages and other retail lending**: the current BS2A and BS2B definitions of residential mortgages are reasonably well aligned. However, in practice we are uncertain about the extent to which loans to small businesses secured by residential mortgages are reported under the "residential mortgage" or "retail SME" asset categories by the IRB banks, and the current capital treatment and IRB models applied to these loans. In addition to this detailed breakdown, we will also collect additional data on the stock of banks' residential mortgages, e.g. segmented by DTI and payment type (interest-only or amortising), to inform future policy decisions on alignment with the residential mortgage segmentation in APRA's new standardised approach.[2]

10. **Leverage ratio**: where it is available on an NZ subsidiary basis, we will ask the IRB banks for the "exposure measure" that forms the denominator of APRA's leverage ratio for the consolidated Australian banking group. This will inform our policy work in the last component of the Capital Review (the capital ratios).

Scope of the QIS

11. Given we have deferred any changes to the standardised approach for credit RWA for the time being, this QIS will only include the IRB banks.

12. We have made the in-principle decision to adopt the new Basel standardised approach for calculating operational risk RWA, for all banks. The new methodology uses income statement items in a standardised formula to determine the RWA value. At this stage we think that the income statement data we collect on a monthly basis will allow us to compute a reliable estimate of the impact of moving to the new methodology, therefore we are not proposing to include operational risk in this QIS.

13. We have deferred making decisions on the market risk framework, so it will not feature in this QIS.

14. We are also not undertaking a stocktake of the outstanding capital instruments that would no longer comply under the proposed changes to the definition of capital at this time. We can collate this information from our own records of approved instruments, or, if necessary, as part of the consultation on the ratio paper.

Workshop

15. We intend to host a workshop in early to mid August to talk through the QIS templates and answer questions from the IRB banks, once the templates have been

[2] APRA's proposed new standardised approach segments mortgages into "Standard – Owner-occupied principal & interest", "Standard – other residential mortgages", and "Non-standard", with the latter category containing loans with low serviceability buffers, high DTIs, and reverse mortgages.

sent out. At the same time, we also want to engage with the industry and explain our thinking behind the in-principle decisions we have made so far (numerator and denominator), and our interpretation of the recent PwC report comparing large NZ bank capital levels with international peers.[3]

16. While the main intended audience for the workshop is the IRB banks, we will also invite standardised banks given their interest in the in-principle decisions and the international comparison work (to the extent it factors into our thinking on the ratio).

17. Banks have asked us to clarify how the restructuring of the capital adequacy sections of the Banking Supervision Handbook interacts with the policy changes arising from the Capital Review. We will take the opportunity at the workshop to explain the dependencies between the two projects, and how we plan to manage these when we consult on exposure drafts of the new capital framework in 2019.

Timelines

18. While the QIS is mostly a “data dump” exercise and should not require a large amount of effort to complete, we think that six weeks is an appropriate length of time for the IRB banks to complete the QIS templates given other work that the relevant staff have underway at this time (e.g, ANZ and WNZL moving to IFRS9 from 1 October).

19. The proposed timeline for the QIS is as follows:

End July	Release draft QIS templates and instructions to IRB banks
Mid August	Host workshop with IRB and standardised banks to seek feedback on QIS, and explain in-principle decisions
August to September	Banks can seek further clarifications on QIS as they complete the template
End September	QIS returns due

[3] A letter on our assessment of the PwC analysis was sent to the NZBA a couple of weeks ago, but we haven’t had a response yet.