



16 December 2019

Ms Katrina Squires  
Acting General Manager, Policy  
APRA  
By email: ADIpolicy@apra.gov.au

Dear Ms Squires

## Submission on interest rate risk in the banking book (APS 117)

Thank you for the opportunity to make a submission to the recent consultation on the proposed changes to APS 117 Interest rate risk in the banking book for ADIs (IRRBB). The high level of engagement provided by APRA during this consultation is appreciated and the workshops held have assisted greatly in the development of this submission.

With the active participation of its member banks in Australia, the ABA provides analysis, advice and advocacy for the banking industry and contributes to the development of public policy on banking and other financial services. The ABA works with government, regulators and other stakeholders to improve public awareness and understanding of the industry's contribution to the economy and community. It strives to ensure Australia's banking customers continue to benefit from a stable, competitive and accessible banking industry.

The ABA supports the alignment of APS 117 with the Basel Committee on Banking Supervision interest rate risk in the banking book issued April 2016 where appropriate.<sup>1</sup> The ABA also supports APRA's objective of reducing the unnecessary variability and volatility of the IRRBB capital charge amongst IRB ADIs.

However, the ABA is concerned that a number of proposals may conflict with these objectives. In particular,

- The appropriateness of dependencies on definitions of risk and accounting concepts outside of APS 117
- Limitations on reflecting the hedged or economically matched nature of interest rate risk thanks to prescriptive techniques for quantification of IRRBB Regulatory Capital.
- Mandating of a five-day overlapping holding period for the estimation method
- The calculation of optionality risk on a product basis.
- Increased total capital requirements; and
- Extending IRRBB risk requirements to non-IRB ADIs.

These concerns and potential alternative proposals for regulation are discussed further in the submission below. Please do not hesitate to contact me using the details below if you have any queries regarding this submission.

Yours sincerely

Karen O'Brien  
Policy Director

<sup>1</sup> <https://www.bis.org/bcbs/publ/d368.pdf>



## Introduction

The ABA has recently reviewed APRA's proposed changes to APS 117 Interest Rate Risk in the Banking Book (IRRBB) Prudential Standard. The ABA understands that the proposed changes aim to reduce the unnecessary variability of the IRRBB capital charge amongst IRB ADIs by standardising aspects of the internal model methodology for determining the IRRBB capital charge. The ABA supports APRA's objective of reducing volatility over time and variation between IRB ADIs in the calculation of their IRRBB capital charge.

However, the ABA does have concerns from the proposed changes to APS 117. These are

- The appropriateness of dependencies on definitions of risk and accounting concepts outside of APS 117
- Limitations on reflecting the hedged or economically matched nature of interest rate risk thanks to prescriptive techniques for quantification of IRRBB Regulatory Capital
- Mandating of a five-day overlapping holding period for the estimation method
- The calculation of optionality risk on a product basis
- The impact of proposals on total capital calculations; and
- The proportionality of the extension of risk management requirements to non-IRB ADIs.

Each of these concerns and possible alternative proposals for APRA's consideration are discussed below.

## Dependencies on definitions outside of Prudential Standard APS 117

The ABA is concerned that linking APS 117 definitions to other standards, some managed by APRA, others outside of APRA's control, may undermine the revised standard's aims of reducing volatility through time and variation between Banks. In particular, the ABA expressed concern with the following:

- The definition of core deposits dependent on APS 210 as prescribed in Attachment B paragraph 9 of APS 117;
- Caps on hedging; and
- Classifying banking book items based on "effective hedge relationship" creates a linkage to Australian Accounting Standards which can and do change.

### Core Deposits

The ABA is concerned about the eligibility criteria for a non-maturity deposit to be considered a core deposit. Draft APS 117 proposes that for a non-maturity deposit to be eligible to be treated as a core deposit, the account would:

- Be either a stable deposit or an operational deposit as defined under Prudential Standard APS 210 Liquidity (APS 210); and
- The requirement to have a set portion of the portfolio to be modelled overnight as prescribed in Attachment B paragraph 4b, 4c and 32 instead of historical portfolio core balance
- Pay an interest rate that is managed by the ADI, is generally materially below wholesale market rates for overnight lending and does not usually change in response to movements in wholesale market rates.

The ABA agrees that using a common deposit definition across entities could reduce variability in the calculation of the IRRBB capital risk charge.

However, in this case, the ABA considers using the definition of a stable or an operational deposit under APS 210 could lead to unforeseen consequences. The APS 210 deposit definitions are written for the specific purpose of reducing liquidity risk and the same definition does not directly translate for IRRBB purposes.

The determination of core deposits under the draft APS 117 standard using APS 210-based criteria may lead to ineffectiveness in the ADIs' management of economic interest rate risk of certain products, particularly if ADIs are required to align internal management practices with assumptions prescribed under the draft APS 117.

The stable deposit definition under APS210 implies a requirement for a government deposit insurance scheme which is particularly problematic in New Zealand where there currently is no scheme in place.

The ABA also considers that less stable deposits (including SMSF, business cheque accounts greater than \$250k) are less stable in a liquidity crisis but for interest rate risk they are not appropriate differentiators. Analysis of product volume stability will implicitly capture the customer behaviour at an aggregate level, and the aggregate level is what drives interest rate risk.

For example, consider the case of a "savings-style" deposit product, paying an amount of interest at or above the cash rate, unaffected by deposit floors and showing a high, but not complete correlation with benchmark rate movements (say 0.9% is passed through for every 1% movement in the benchmark). This rate is able to be set at the ADI management team's discretion.

Table 1 below shows this theoretical product's pricing progression through time against a theoretical set of market rates.



Table 1 Deposit product pricing progression through time

		Mth 0	Mth 1	Mth 2	Mth 3	Mth 4	Mth 5	Mth 6
<b>Observed</b>	Balance	100	105	108	115	117	120	125
	Customer Rate	3.00%	2.55%	2.10%	1.88%	2.33%	2.55%	3.45%
	Variable Benchmark Rate	3.00%	2.50%	2.00%	1.75%	2.25%	2.50%	3.50%
	Theoretical Fixed Benchmark Rate	4%	4%	4%	4%	4%	4%	4%
<b>Derived</b>	Repricing Co-efficient <sup>2</sup>	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	Balance sensitive to Variable Benchmark <sup>3</sup>	90	94.5	97.2	103.5	105.3	108	112.5
	Balance considered to be non-rate sensitive <sup>4</sup>	10	10.5	10.8	11.5	11.7	12	12.5
	Blended Transfer Pricing Rate <sup>5</sup>	3.10%	2.65%	2.20%	1.98%	2.43%	2.65%	3.55%
	Business Unit Margin <sup>6</sup>	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%

Table 1 shows that deposit hedging (generally referred to as ‘replicating portfolios’) allow the ADI to manage that part of the product’s pricing that is not sensitive to benchmark rate movements. The ADI’s business units are able to be given a stable net-interest-margin (NIM) through time, centralising interest rate risk to the funding centre (i.e. Treasury).

These deposits would not qualify for core-deposit treatment under the revised standard, leading to 100% of the flow being treated as rate sensitive because of APS210-based liquidity or maturity assumptions, rather than the observed interest rate sensitivity. An internal management approach consistent with the revised APS 117 standard would lead to no hedging and the scenario outlined in the following Table 2:

<sup>2</sup> Customer Rate Change/Variable Benchmark Rate Change

<sup>3</sup> Balance \* Repricing Coefficient

<sup>4</sup> Total Balance – Balance Sensitive to Variable Benchmark

<sup>5</sup> Weighted Variable Benchmark + Weighted Theoretical Fixed Benchmark

<sup>6</sup> Customer Rate – Blended Transfer Pricing Rate



Table 2 Proposed APS 117 scenario on price progression.

		Month 0	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
<b>Observed</b>	Balance	100	105	108	115	117	120	125
	Customer Rate	3.00%	2.55%	2.10%	1.88%	2.33%	2.56%	3.46%
	Variable Benchmark Rate	3.00%	2.50%	2.00%	1.75%	2.25%	2.50%	3.50%
	Theoretical Fixed Benchmark Rate	4%	4%	4%	4%	4%	4%	4%
<b>Derived</b>	Repricing Co-efficient (Customer Rate Change/Variable Benchmark Rate Change)	1	1	1	1	1	1	1
	Balance sensitive to Variable Benchmark	100	105	108	115	117	120	125
	Balance considered to be non-rate sensitive	0	0	0	0	0	0	0
	Blended Transfer Pricing Rate	3.00%	2.50%	2.00%	1.75%	2.25%	2.50%	3.50%
	Business Unit Margin	0.00%	-0.05%	-0.10%	-0.13%	-0.08%	-0.06%	0.04%

As can be observed above, the business unit margin is now volatile and exposed to interest rate risk.

ADIs should be able to make appropriate interest rate risk management decisions and implement hedging strategies to manage that part of the product's margin that is not rate sensitive. The application of interest rate risk management decisions should broadly align with IRRBB regulatory requirements.

### Caps on hedging

The ABA considers limiting an ADI's ability to hedge to 80 per cent is likely to increase interest rate volatility which is not consistent with the discussion paper's objective. Requiring ADIs to assume at least 20 per cent of the product's principal payments to be overnight, prevents an ADI from managing margin volatility without imposing a regulatory capital requirement.

Table 3 – Example of margin volatility drive by poorly chosen repricing assumptions

		Month 0	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
<b>Observed</b>	Balance	100	105	108	115	117	120	125
	Customer %	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
	Variable Benchmark%	3.00%	2.50%	2.00%	1.75%	2.25%	2.50%	3.50%
	Theoretical Fixed Benchmark%	4%	4%	4%	4%	4%	4%	4%
<b>Derived</b>	Repricing Co-efficient (actual = 0, prescribed by draft standard = 0.2)	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Balance sensitive to Variable Benchmark	20	21	21.6	23	23.4	24	25
	Balance considered to be non rate sensitive	80	84	86.4	92	93.6	96	100
	Blended Transfer Pricing %	3.80%	3.70%	3.60%	3.55%	3.65%	3.70%	3.90%
	Business Unit Margin	3.70%	3.60%	3.50%	3.45%	3.55%	3.60%	3.80%

With a prescribed minimum repricing co-efficient rather than one based on historical or behavioural analysis the product margin of the business unit is now volatile. They will be exposed to interest rate risk and may look for alternatives to offset this volatile, potentially lower return.

The ABA recommends that the standard should enable an ADI to make appropriate interest rate risk management decisions to implement hedging strategies without a regulatory capital impost to manage that part of the product's margin that is not rate sensitive.

### Interpretation of accounting standards

The ABA is concerned that the proposed definition of “effective hedging relationship” could result in increased variability in the calculation of the capital charge between ADIs. In previous communication, APRA indicated that the term “effective hedging relationship”, which defines non-market related derivatives,

with reference to accounting standards AASB139 and AASB9. The ABA does not consider this tight linkage to accounting standards and its outcome as being consistent with objectives of APS 117.

There are three issues of concern:

- The appropriateness of the accounting definition of effective hedging for APS 117
- Differing interpretations of effective hedging under AASB139 and AASB9.
- Risk of regulatory uncertainty and unintended consequences from future changes to accounting standards.

The ABA does not consider it appropriate to reference the accounting definition of effective hedging for APS 117. This is because a hedge accounting treatment does not focus on cash flow matched contracts or IRRBB sensitivity-based views. Instead, accounting standards focus on prospective tests which can lead to inconsistencies for similar derivatives even within a single ADI and would not promote consistency across the industry.

An example where inconsistencies could arise due to the accounting definition is when ADIs issue structured bonds with bespoke payments. In this case, ADIs will often choose to adopt fair value through profit and loss accounting even when the terms of the bond and hedging derivatives are perfectly aligned. This is driven by accounting and not IRRBB management decisions. Further examples of inconsistencies that could arise include operating leases which are deemed off-balance sheet and unsettled commitments where the accounting treatments are divorced from economic IRRBB management.

In addition, the ABA considers that ADIs transition between AASB139 and AASB9 will create further variability across ADIs. ADIs are currently in different stages of transition between AASB139 and AASB9 where an effective hedging relationship is defined differently under each standard. This would result in different modelling between ADIs which is not consistent with the objective of increasing standardisation.

The ABA also considers linking a definition to an outside accounting standard increases regulatory uncertainty and the risk of unintended consequences. APRA does not have regulatory oversight of accounting standards. This means that any future changes to accounting standards will affect the operation of APS 117 which could lead to unintended consequences risking the effectiveness of the standard.

Alternatively, the ABA recommends linking the definition of “effective hedging relationship” to the ability to demonstrate an economic hedge; and to allow ADIs the flexibility to determine which of these derivatives should be deemed non-market related. This approach would allow hedging derivatives selection to be treated more consistently with the banking book items they hedge and is better aligned with APRA’s standardisation objective.

## Inhibit best practise interest rate risk management techniques

The ABA notes that there are parts of the proposed standard that could result in circumstances where ADI’s managing interest rate risk may have to hold capital despite being economically matched.

The ABA supports APRA’s objective to model cross currency spreads as a funding cost accrued to maturity, separate to interest rate risk. While use of a single curve is likely in most cases, in some cases, ADIs will need to have a multi curve approach for the management of non-market related items. This is because mandating the shocking of only discount factors in the non-market risk curve reduces an ADI’s ability to manage risk. Flexibility is needed here to allow for the management of interest rates risks associated with overnight indexed swap discounting and single currency basis.

The reduced ability to manage risk becomes apparent when considering an ADI’s ability to model future market developments. There is a risk that strict requirements in the standard may limit modelling of other, as yet unforeseen, market developments. For example, the ability to use a single currency basis is likely to be important in the management of risks through the transition away from LIBOR toward risk-free benchmark rates, and unduly limiting modelling here could be problematic.

To avoid reducing an ADI’s ability to manage risk, the ABA considers that the language around non-market related items should not be prescriptive and instead adopt a more flexible framework or principles-based approach. This could be achieved by requiring any deviations from a single curve approach to be APRA approved as part of the accreditation process. This would allow ADIs to use multi-curve modelling of non-

market related items where it is appropriate for the risk and ensure APRA can manage variations across industry.

## Estimation method: holding period and constraints on rate models

### Holding period

The ABA recommends that the holding period for Value at Risk calculations be increased from the proposed five days to ten days as the proposed five-day period does not adequately capture the mean-reverting behaviour of interest rate movements.

In addition, the ABA considers that increasing the holding period to ten days has the added benefit of aligning with the current trading book risk capital requirements and FRTB proposals.

### Computation of PostShockEV

The ABA acknowledges that APRA intends to remove implicit assumptions of continuing trends in the historical simulation method through applying an adjustment factor per risk factor as defined in Attachment B paragraph 18. When read in conjunction with Attachment B paragraph 11, which defines a risk factor, the ABA interprets that a separate adjustment factor must be applied to each tenor point across all curves.

The ABA expresses concern that this approach may lead to outcomes in the computation of PostShockEV that diverge materially with observed historical market behaviour for certain positions. In particular, ADIs frequently fund or manage risk from non-market related instruments with instruments of a different tenor (such as cash-rate products funded with three month bank bills) or with derivatives referencing different curves (such as the use of three-year AUD\$ government bond futures to manage three-year non-market related interest rate risk). It is acknowledged that such positions will drive forms of basis risk.

The ABA is concerned that over time the ability to reconcile IRRBB capital outcomes to expected outcomes from observed historical market behaviour will be costly, complex and unlikely to deliver a proportionate reduction in risk. Reconciliation will be costly with respect to basis risks where adjustment factors for the historical simulation are calculated and applied to offsetting risk factors in isolation prior to aggregation. This approach could introduce additional variability across ADIs, depending on how each ADI's curve is constructed. As a result, ADIs may be required to frequently run parallel processes to ensure that no unexpected divergences occur between the regulatory capital outcomes and the ADI's internal interest rate risk appetite measures, which have historically relied on unadjusted historical market observations. Given the additional complexity and cost, the ABA questions the need for this requirement and its preference is to maintain an unadjusted historical rate series.

### Optionality

The ABA is concerned about the measurement of optionality risk for products other than fixed-rate loans, rate locks and core deposits. In particular, exposures in other products would be captured in the optionality capital charge add-on and would not benefit from diversification within the stochastic process. This could lead to an unduly punitive outcome if it is material to an ADI's exposures.

The ABA understands that this add-on was included to capture exposures that are less material to the aggregate banking book portfolio. The ABA therefore considers that the likelihood of material portfolios being captured here is contrary to APRA's intent.

Alternatively, the ABA recommends that the measurement of optionality risk within the stochastic model be expanded to allow the approach to reflect the specific risks within an ADI's banking book portfolios.

This recommendation covers three considerations:

1. allowance for exposures to automatic options (i.e. caps and floors) on variable rate instruments;
2. ability to capture exposures to product types outside the three groups currently included in the draft standard (e.g. credit cards, finance leases); and



3. recognition that the definition of a portfolio may vary based on the specific product types and balance sheet composition of each ADI (e.g. grouping of call deposits into portfolios for IRRBB risk management).

This alternative proposal would have the benefit of allowing flexibility for APRA and ADIs to adapt to innovations in financial markets over time without requiring an amendment to the drafting of APS117.

## Total capital calculations

Preliminary modelling of the proposed changes to the APS 117 Prudential Standard suggests an increase in overall capital requirements. The ABA does not believe that increasing IRRBB capital requirements is the intent of the Basel changes and requests that APRA ensures this is not an unintended effect. The ABA considers that the final IRRBB proposals should be included in a future QIS to ensure appropriate recalibration of the IRRBB framework.

## Extension of risk management requirements to non-IRB ADIs

The ABA notes that APRA has concerns that some mid-tier ADIs have implemented strategies that introduce uncapitalized interest rate risk into their operations. In response, APRA proposes to extend the application of risk management requirements within APS 117 to all ADIs, so that each ADI must have a framework for managing Interest Rate Risk in the banking Book (IRRBB) (including spread risk).

While APRA notes that it expects these frameworks to be commensurate with the level and complexity of each ADI's IRRBB exposures we remain concerned that for many ADIs, particularly Foreign bank branches and smaller less complex ADIs, the proposal is not a proportionate response.

## Prudential Standard CPS 220 Risk Management

The ABA supports the appropriate management of interest rate risk by all ADIs. Where interest rate risk in the banking book is a material risk for non-IRB ADIs this should be identified and managed under CPS 220 Risk Management. This is more likely to result in a proportionate response to the risk particularly in the case of branches of foreign banks and smaller non-IRB ADIs. The proposed requirements in the APS 117, in contrast, are excessive for the risk profile of many ADIs. While they are appropriate for larger ADIs with significant interest rate risk, the same does not hold true for smaller ADIs and foreign bank branches. The distinction between larger institutions and smaller ADIs and foreign branches is something which APRA has recognised previously in its liquidity framework setting and a similarly nuanced approach for APS 117 would be welcomed by the industry.

Non-material levels of interest rate risk for an ADI with lower total exposures, or exposures that are insignificant in their global firm context, simply do not require the burdensome structures proposed by the revised draft of APS 117. While APRA might suggest "commensurate" application will deliver proportional outcomes, in practice using a framework currently reserved for ADIs with over \$100 billion in exposures for all prudentially regulated ADIs will result in a significant and unnecessary increase in cost and complexity as firms will be reluctant to risk scaling back the requirements significantly given the prudential nature of the related supervision.

Further, allowing foreign bank branches to manage risks from head office will ensure APS 117 reflects the structures that have been established and supported internationally by the Financial Stability Board and promoted by IOSCO. In line with recent calls from IOSCO1 and the FSB2 to reduce market fragmentation through appropriate regulatory deference, APRA should as a general principle defer on solvency matters including IRRBB to the home jurisdiction for branches of foreign banks.

Given these costs, the ABA considers that leveraging the existing CPS 220 framework allows non-IRB ADIs to manage their risk in a proportionate way and will require active thought from management and the board of each institution as to what the 'right-sized' response is for their organisation. It also allows scope for each institution to manage their risk in the way that best mitigates the challenges posed by their own business model and funding structure and should generate a better prudential outcome than a 'one size fits all' approach.

### Preserve competition benefits of foreign bank branch structure

The economic advantages granted to the jurisdiction by having the benefits of branch structures must weigh into the considerations about whether making the requirements for branches effectively the same for IRRBB. Australia gains significant advantages economically from having international branches in the Australian market. Our members report that:

- For smaller foreign branches establishing the systems and processes suggested by the draft standard will be a significant and burdensome undertaking. For their relative exposures, already managed from head office, the required costs will be disproportionate to both the IRRBB risks and any benefit that would accrue.
- For larger branches of foreign banks, the requirements are largely duplicative of the requirements of their home jurisdiction regulators and unnecessary.

Rather than applying the draft provisions of APS 117 to these organisations, we recommend using CPS 220 to ensure that each institution addresses the topic as best mitigates their own risk.