Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry

The Regulatory Capital Framework: Impairment, Provisioning and Enforcing Security

Background Paper 13

This paper was prepared by APRA in response to a request made by the Royal Commission.

BACKGROUND PAPER

The regulatory capital framework: Impairment, provisioning and enforcing security

In response to a request from the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry (the Royal Commission), the Australian Prudential Regulation Authority (APRA) has prepared this paper on the effect on an authorised deposit-taking institution's (ADI) Tier 1 capital where a loan is classified as impaired, a provision is raised and enforcement action against the loan's security is taken.

As outlined in the paper APRA previously provided to the Commission, *The regulatory capital framework for authorised deposit-taking institutions (ADIs)* (Background Paper 9), an ADI must hold regulatory capital against an exposure such as a loan, based on the risk associated with that exposure.

Where an ADI forms a view that it may not recover the full amount of money owed to it in a timely manner, a loan must be classified as impaired for regulatory capital purposes.[1] In making this assessment, an ADI takes into account both the borrower's likely repayments and the amount that it might recover through the sale of any security for the loan. Not all loans that become distressed or are past due in payments must be classified as impaired for regulatory capital purposes. For example, a borrower may be in arrears but, if the ADI has security sufficient to cover the amount of the loan, the loan will not be classified as impaired (but will

[1] *Prudential Standard APS 220 Credit Quality* (APS 220), paragraph 24 and Attachment A, paragraph 7. The requirements of APS 220 have not substantively changed since 2008, including those relating to provisioning and impairment.

be considered a non-performing loan). Conversely, a loan may be classified as impaired regardless of whether it is behind on payments if there are doubts about timely and complete repayment.[2]

Under APS 220, where an ADI has identified a loan as impaired, it must set aside an amount (provision) to cover any shortfall in cash flows contractually due to be received.[3] Over time, the amount of this provision may vary according to the ADI's estimation of losses on the amount owed, taking account of, for example, changes in either the assessed ability of the borrower to make further repayments and/or the value of the security held against the loan.

Where an ADI finds that a borrower is unable to repay a loan in a manner consistent with the loan agreement, and typically after considering alternative means to achieve an acceptable, efficient outcome for the borrower and the ADI, an ADI may take action to enforce the security for the loan. This action involves the ADI taking possession of, and selling, the property or other security. Any money received in excess of the amounts owed to the ADI is repaid to the borrower while any shortfall may be subject to separate recovery action or be written off by the ADI. The process for completing enforcement action over an impaired loan may take a number of years.

The principles of recognising an impaired loan, holding a provision against the estimated loss on that loan and recovering amounts owed apply regardless of whether an ADI uses the standardised or internal ratings-based (IRB) approaches to credit risk.

Impact on capital and risk weights: standardised approach

As set out in Background Paper 9, an ADI must hold a minimum amount of regulatory capital as a proportion of its total risk-weighted assets (RWAs). For the purposes of the formula for determining this capital adequacy ratio under the standardised approach to credit risk, when a provision is raised:

- the amount of the provision is excluded from retained earnings, which are part of Tier 1 capital (T1) – the numerator of the capital adequacy ratio; and
- the amount of the provision is also deducted from the outstanding loan amount (exposure), with the revised exposure multiplied by the relevant risk weight to

[2] APS 220, Attachment A

[3] APS 220, paragraph 27

calculate RWAs for the exposure – the denominator of the capital adequacy ratio.

That is, the amount of T1 in the numerator of the calculation is reduced by the amount of the provision, while the amount of RWAs in the denominator of the calculation is reduced by the amount of the provision before being multiplied by the risk weight for that exposure. For loans with a typical risk weight, [4] the net effect of this is to reduce the ADI's T1 ratio. This impact is demonstrated in a stylised example in Attachment A.

Impact on capital and risk weights: internal ratings-based approach

For an ADI approved by APRA to use the IRB approach, the amount of any provision against an impaired asset is deducted from T1 similar to the standardised approach. The key difference between the IRB and standardised approaches is the calculation of risk-weighted assets. Specifically:

- the risk weight is calculated based on an ADI's own internal modelling (taking into account experience and estimates for factors such as loss given default); and
- the risk weight is applied to the total outstanding loan amount (i.e. without deducting the provision).

Similar to the standardised approach, the impairment of a loan typically has the effect of reducing the capital ratio, because the reduction in T1 capital is greater than the change in RWAs. This is demonstrated in a stylised example in Attachment B.

[4] Under *Prudential Standard APS 112 Capital Adequacy: Standardised Approach to Credit Risk*, the risk weight for a loan to an SME would range from 35 per cent to 150 per cent, depending on the type of security (e.g. residential or commercial property) and whether repayments are overdue.

ATTACHMENT A

Stylised example: SME loan under the standardised approach

Year-on-year developments

Normal (time = t)

- Assume an ADI has a loan of $100 to a small- to medium-sized enterprise (SME).
- The ADI also has other loans of $10,000.
- The loan is secured by commercial property and has a risk weight of 100 per cent.
- The average risk weight applied to all other loans is assumed to be 50 per cent.

Impairment (time = t + 12 months)

- The credit quality of the SME customer deteriorates and they are unable to make payments on time.
- The ADI determines that there is doubt about repayment and so the loan is classified as impaired under APS 220.
- The ADI estimates its potential loss at $40 and books a provision of $40. The $40 provision is the ADI's estimate for the shortfall in terms of recovering the full amount of the loan.

Enforcement (time = t + 24 months)

- The ADI decides to take enforcement action against the secured property, sells it for $60 and writes off the loan.
- The proceeds are used to fund a new loan that has the same risk weight as the loan written off.

N.B. If the amount recovered is more than the outstanding SME loan (i.e. greater than $100) any excess is returned to the borrower. Hence there is no capital benefit (or uplift) to the ADI.

If the ADI overestimates the provision, at the recovery stage the capital ratio may increase relative to the level held at the impairment stage. However, the capital ratio will not be higher than pre-impairment (i.e. at the 'normal' stage).

Standardised approach

Year	t	t + 12	t+ 24
Asset Quality	**Normal**	**Impairment**	**Enforcement Action**
Profit or Loss/ Retained Earnings (Tier 1 Capital Impact)		**(-40)**	**0**
Bank Balance Sheet			
Assets			
New loan issued following enforcement action	-	-	60
SME Loan	100	100	-
Less: Provision	**0**	**(-40)**	**0**
Net Loan	**100**	**60**	**-**
Other Loans	**10,000**	**10,000**	**10,000**
Total Assets	**10,100**	**10,060**	**10,060**
Total Liabilities	**9,590**	**9,590**	**9,590**
Equity (Tier 1 Capital)	**510**	**470**	**470**
Regulatory Capital Calculation			
Risk weight % applicable to *new loan*			100%
Risk weight % applicable to SME loan	100%	100%	
Risk weight % applicable to other loans	50%	50%	50%
Risk weighted assets	5100	5060	5060
Tier 1 Capital Ratio	10.00%	9.29%	9.29%

ATTACHMENT B

Stylised example: SME loan under the internal ratings-based approach

Year-on-year developments

Normal (time = t)

- Assume an ADI has a loan of $100 to an SME customer.
- The ADI also has other loans of $10,000.
- The loan is secured by commercial property and has a risk weight of 40 per cent based on the following assumptions:
  - The borrower is not externally rated.
  - The borrower is considered an acceptable-to-good origination risk. This implies a typical probability of default (PD) estimate of around 1.5 per cent (which is equivalent to an external rating of BB-).
  - As the loan is fully secured, a typical loss given default (LGD) of 20 per cent applies.
  - The maturity is 2.8 years.
  - The SME is relatively small, with turnover (i.e. total sales) of $5 million.
- The average risk weight applied to all other loans is assumed to 50 per cent.

Impairment (time = t + 12 months)

- The credit quality of the borrower deteriorates and they are unable to make payments on time.
- The ADI determines that there is doubt about repayment and so the loan is classified as impaired under APS 220.
- The ADI estimates its potential loss at $40 and books a provision of $40. The $40 provision is the ADI's estimate of the shortfall in terms of recovering the full amount of the loan.

Enforcement (time = t + 24 months)

- The ADI decides to take enforcement action against the property, sells it for $60 and writes off the loan.
- The proceeds are used to fund a new loan that has the same risk weight as the loan written off.

Internal ratings-based approach

Year	t	t + 12	t+ 24
Asset Quality	**Normal**	**Impairment**	**Enforcement Action**
Profit or Loss/ Retained Earnings (Tier 1 Capital Impact)		**(-40)**	**0**
Bank Balance Sheet			
Assets			
New loan issued following enforcement action	-	-	60
SME Loan	100	100	-
Less: Provision	**0**	**(-40)**	**0**
Net Loan	**100**	**60**	**-**
Other Loans	**10,000**	**10,000**	**10,000**
Total Assets	**10,100**	**10,060**	**10,060**
Total Liabilities	**9,590**	**9,590**	**9,590**
Equity (Tier 1 Capital)	**510**	**470**	**470**
Regulatory Capital Calculation			
Risk weight % applicable to *new loan*			40%
Risk weight % applicable to SME loan	40%	0%	
Risk weight % applicable to other loans	50%	50%	50%
Risk weighted assets	5040	5000	5024
Tier 1 Capital Ratio	10.11%	9.40%	9.35%

N. B. The SME loan risk-weight is zero per cent in the T + 12 period because the provision is greater than the LGD for this loan. In a different example, the SME loan risk-weight would remain above zero per cent if the provisions are less than the LGD, which would also typically have the effect of reducing the capital ratio, because the reduction in T1 capital is greater than the change in RWAs.

If the amount recovered is more than the outstanding SME loan (i.e. greater than $100) any excess is returned to the borrower. Hence there is no capital benefit (or uplift) to the ADI.

If the ADI overestimates the provision, at the recovery stage the capital ratio may increase relative to the level held at the impairment stage. However, the capital ratio will not be higher than pre-impairment (i.e. at the 'normal' stage). [5]

[5] In limited circumstances, it is possible that an ADI using the IRB approach might obtain a capital benefit where it purchases a loan that has already become impaired and the purchase price is significantly discounted from the loan amount.