



Friday, 16 November 2018

## **ASX ANNOUNCEMENT**

### **NAB 2018 Full Year Pillar 3 Report**

National Australia Bank Limited (NAB) today released its Full Year Pillar 3 Report, as required under the Australian Prudential Regulation Authority Prudential Standard APS 330 *Public Disclosure*.

The report is attached to this announcement and available at:

<http://www.nab.com.au/about-us/shareholder-centre/regulatory-disclosures>

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# PILLAR 3 REPORT 2018



National  
Australia  
Bank

"It's been an extraordinary relationship and if it wasn't for NAB, we wouldn't be where we are now."

Campbells Wines,  
NAB customer

Jane Campbell

Colin Campbell

Incorporating the requirements of APS 330  
as at 30 September 2018

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## Section 1

### Introduction

National Australia Bank Limited (NAB) is an Authorised Deposit-taking Institution (ADI) subject to regulation by the Australian Prudential Regulation Authority (APRA) under the authority of the *Banking Act 1959* (Cth). This document has been prepared in accordance with APRA Prudential Standard APS 330 *Public Disclosure*.

APS 330 requires disclosure of information to the market relating to capital adequacy and risk management practices. APS 330 was established to implement the third pillar of the Basel Committee on Banking Supervision's (BCBS) framework for bank capital adequacy. In simple terms, the framework consists of three mutually reinforcing pillars.

<b>Pillar 1</b> <b>Minimum capital requirement</b>	<b>Pillar 2</b> <b>Supervisory review process</b>	<b>Pillar 3</b> <b>Market discipline</b>
Minimum requirements for the level and quality of capital, and a non-risk based leverage ratio	Management's responsibility for capital adequacy to support risks beyond the minimum requirements, including an Internal Capital Adequacy Assessment Process (ICAAP)	Disclosure to the market of qualitative and quantitative aspects of risk management, capital adequacy and various risk metrics

This document describes the approach the Group, being NAB and its controlled entities, takes to manage risk, and provides detailed information about risk exposures, capital adequacy, liquidity and remuneration practices.

Amounts are presented in Australian dollars unless otherwise stated, and have been rounded to the nearest million dollars (\$m) except where indicated.

#### 1.1 Capital Adequacy Methodologies

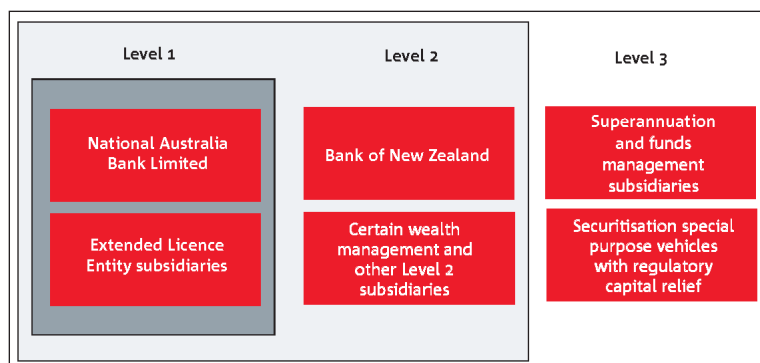
The following illustration sets out the Group's approach to measuring capital adequacy as at 30 September 2018.

<b>Risk type</b>	<b>Credit Risk</b>	<b>Operational Risk</b>	<b>Non-traded Market Risk</b>	<b>Traded Market Risk</b>
<b>Methodology</b>	Advanced Internal Ratings Based (IRB) Approach	Advanced Measurement Approach (AMA)	Internal Model Approach (IMA)	Standardised and Internal Model Approach (IMA)

Bank of New Zealand (BNZ), is a wholly owned subsidiary of the Group and is a registered bank under the *Reserve Bank of New Zealand Act 1989*. BNZ is subject to capital adequacy requirements mandated by the Reserve Bank of New Zealand (RBNZ), under which BNZ applies the Internal Models Based Approach. BNZ credit risk exposures consolidated in the Group exposures are calculated under RBNZ requirements.

#### 1.2 Scope of Application

APRA measures capital adequacy by assessing financial strength at three levels as illustrated below.



Level 1 comprises NAB and its subsidiary entities approved by APRA as part of the Extended Licensed Entity.

Level 2 comprises NAB and the entities it controls, excluding superannuation and funds management entities and securitisation special purpose vehicles to which assets have been transferred in accordance with the requirements for regulatory capital relief

in APS 120 *Securitisation*. Level 2 controlled entities include BNZ and other financial entities such as broking, wealth advisory and leasing companies.

Level 3 comprises the consolidation of NAB and all of its subsidiaries.

This report applies to the Level 2 Group, headed by NAB, unless otherwise stated.

### **Restrictions on the Transfer of Funds and Regulatory Capital within the Group**

Limits are placed on the level of exposure (debt and equity) that NAB may have to a related entity. The Conglomerate Group Aggregate Risk Exposure Policy requires consideration of excessive risk when setting risk limits between Group entities. Group Credit Policy on lending between entities in the Group requires intercompany transactions to be adequately controlled and comply with legal and regulatory requirements.

As the Group's major banking subsidiary, BNZ works with the Group to manage capital to target capital ranges approved by its board. Any capital transfer is subject to maintaining adequate subsidiary and parent company capitalisation.

## Section 2

### Regulatory Reform

The Group remains focused on areas of regulatory change. Key reforms that may affect its capital and funding include:

#### *'Unquestionably Strong' and Basel III Revisions*

- In December 2017, the BCBS finalised the Basel III capital framework. APRA subsequently commenced consultation on revisions to the domestic capital framework in February 2018 and reaffirmed its intention to strengthen banking system resilience by establishing 'unquestionably strong' capital ratios. APRA expects major Australian banks to achieve Common Equity Tier 1 (CET1) capital ratios of at least 10.5% by 1 January 2020 based on existing risk-weighted assets (RWA) methodologies.
- APRA's consultation on revisions to the capital framework includes consideration of 'benchmarks for capital strength', 'risk sensitivity of the capital framework' and 'transparency, comparability and flexibility of the capital framework'. Consultation will continue in 2019 and APRA is currently proposing an implementation date of 1 January 2021. To calibrate the various aspects of the proposals including the potential application of overlays, APRA is undertaking a quantitative impact study.
- APRA has also proposed a minimum leverage ratio requirement of 4% for IRB ADIs and a revised leverage ratio exposure measurement methodology from 1 July 2019. The Group's leverage ratio as at 30 September 2018 of 5.38% (under current methodology) is disclosed in further detail in Table 4.1B *Capital and Leverage Ratios*.
- APRA has finalised its prudential requirements for the standardised approach to counterparty credit risk (SA-CCR), which are introduced in the new Prudential Standard APS 180 *Counterparty Credit Risk*. These requirements will take effect from 1 July 2019.

#### *Increased Loss-absorbing Capacity for ADIs*

- On 8 November 2018, APRA released a discussion paper outlining its proposals for increasing the loss-absorbing capacity of ADIs. The proposals are consistent with the Financial System Inquiry recommendation to implement a framework sufficient to facilitate the orderly resolution of Australian ADIs and minimise taxpayer support. The paper outlines, for domestic systemically important banks (D-SIBs), an increase in the Total capital requirement of between 4 and 5% of RWA. It is anticipated that D-SIBs would satisfy this requirement predominantly with the issue of additional Tier 2 capital, which is expected to increase the Group's ongoing cost of funds. APRA's consultation process is expected to be completed during 2019, with adjusted capital requirements to apply by 2023.

Other regulatory changes of note include:

- The BCBS announced its revised market risk framework, which is due to come into effect from 1 January 2022 globally. APRA has advised that domestic timing will not be confirmed prior to global rules being finalised. While the Credit Value Adjustment (CVA) framework has been finalised by the BCBS, it may be subject to further recalibration as a result of the market risk framework review. APRA will commence consultation on the CVA framework post recalibration.
- APRA's standards on the non-capital components of the supervision of conglomerate groups (Level 3 framework) took effect on 1 July 2017. Level 3 capital requirements are expected to be determined following the finalisation of other domestic and international policy initiatives, with APRA advising that implementation will be no earlier than 2019.
- On 27 November 2017, the Financial Policy Committee in the United Kingdom announced it was raising the countercyclical capital buffer rate from 0.5% to 1% with effect from 28 November 2018. In January 2018, the Hong Kong Monetary Authority announced an increase in the countercyclical capital buffer for Hong Kong from the current 1.875% to 2.5%, effective from 1 January 2019. This is relevant for the Group as the countercyclical capital buffer is calculated as the weighted average of the buffers in effect in jurisdictions in which ADIs have private sector credit exposures.
- In New Zealand, the RBNZ is undertaking a comprehensive review of the capital adequacy framework applying to registered banks incorporated in New Zealand. In December 2017, the RBNZ published its in-principle proposals on the definition of capital. In July 2018, in-principle decisions were announced including an RWA floor and modelling restrictions for IRB models, a standardised approach to calculating operational risk RWA, and dual reporting requirements for IRB banks (using both standardised and IRB approaches). The next phase of the review will be a quantitative impact study of the in-principle decisions. The RBNZ expects to conclude on key elements of the review in late 2018, including on the setting of minimum capital ratios.
- APRA's revised Large Exposures and Related Entity frameworks will take effect from 2019 and 2020, respectively.
- A new Australian Accounting Standard AASB 16 *Leases* is applicable from 1 October 2019. AASB 16 requires lessees to recognise leases (subject to certain exceptions) on-balance sheet in a manner comparable to the current accounting for finance leases, which is expected to impact RWA for non-lending asset exposures.

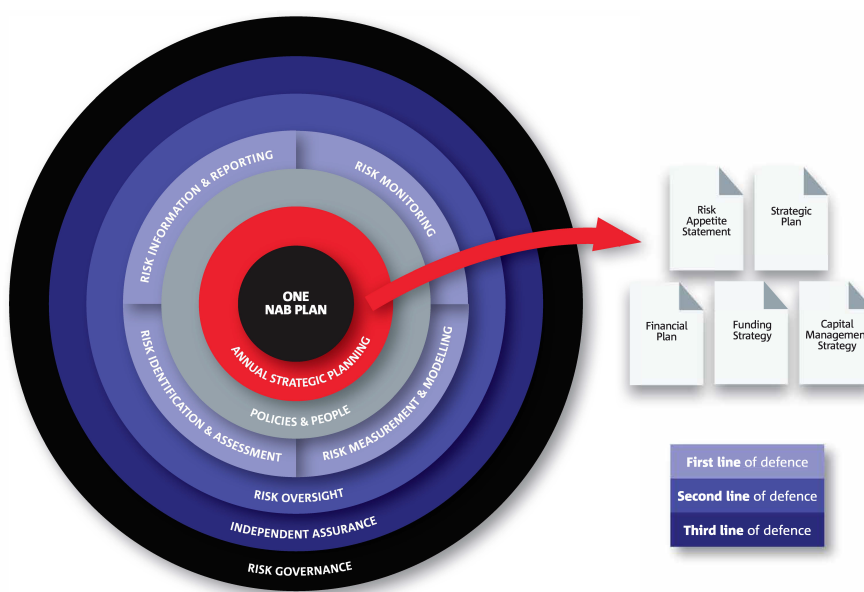
## Section 3

## Risk Governance and Management

## Risk Management

Effective risk management, including having a Risk Management Strategy and sound risk culture, is essential to achieving NAB's vision to be Australia's leading bank, trusted by customers for exceptional service. Risk exists in all of the Group's business and the environment in which it operates. The Risk Management Strategy is reviewed annually or more frequently if there is a material change to the size, business mix and complexity or a material change to the Group's risk profile. It is approved by the Board and submitted to APRA.

The Group's Risk Management Framework is illustrated below and integrates risk management processes into the Group's strategic planning, appetite, policies, reporting and governance to ensure that risk is managed effectively and coherently across the Group.



The Risk Management Framework is based on a Three Lines of Defence model. Risk management accountabilities are allocated for risk ownership and functionally independent oversight and assurance across the three lines:

- **First line** - Businesses own and manage risks and controls (including the identification and assessment of risk and controls) within their business and across the value chain in line with risk appetite.
- **Second line** - The Risk function develops and maintains the Risk Management Framework which enables the business to manage the risk and control environment within the Board approved risk appetite.
- **Third line** - Internal Audit provides independent assurance over the Risk Management Framework and its application by the first and second lines.

The Group undertakes annual strategic planning to maintain alignment of the Group's risk appetite and its business strategy. Specific performance targets are established for the Group, legal entities, and individual businesses. Stress testing and scenario analysis are used to inform risk appetite.

Key outputs of the strategic planning process are the Group Risk Appetite Statement, Strategic Plan, Financial Plan, Funding Strategy and Capital Management Strategy. These collectively form the Group's Business Plan, which is endorsed by management and approved by the Board.

The Board also approves the ICAAP and Internal Liquidity Adequacy Assessment Process (ILAAP), which seeks to ensure the Group holds sufficient capital and liquidity resources in the context of the Group's risk appetite, risk profile and strategy.

## Board and its Committees

The Board has established a number of committees, including the Board Risk Committee, to assist it in carrying out its responsibilities as specified through respective governance charters which are available on online at [www.nab.com.au/about-us/corporate-governance](http://www.nab.com.au/about-us/corporate-governance). The Board, through the Board Risk Committee and executives, promotes awareness of a risk based culture and supports the establishment by management of an acceptable balance between risk and reward.



## Management and its Committees

The Board delegates responsibility to the Group Chief Executive Officer to manage the day-to-day operations of the Group. Delegations of Authority capture delegations from the Group Chief Executive Officer to direct reports to manage their business within Board approved plans, risk appetite, policies and any other specific restrictions. This responsibility is also partly effected through the executive risk committee structure which supports the Group Risk Return Management Committee in governing specific material risks. Roles and responsibilities, composition and frequency of meetings for the Group Risk Return Management Committee and its supporting sub-committees are outlined in individual committee charters.

First line value chain risk committees also provide governance for risk management. Second line risk specialists are committee members and provide insight, oversight, advice and challenge.

## Material Risks

A number of measures exist across each of the Group's material risks, including but not limited to those outlined in the table below. Further disclosure on risk factors is included in the 2018 Annual Financial Report.

Material risk	Definition	Key measures	Governing policies and key committees
Credit	The potential that a customer will fail to meet its obligations to the Group in accordance with agreed terms. Credit risk arises from both the Group's lending activities (banking book) and markets and trading activities (trading book).	<ul style="list-style-type: none"> <li>- Economic capital limits</li> <li>- Credit concentration limits, for example, single large exposures, industries, and countries</li> <li>- Portfolio limits, settings and indicators in respect to credit quality having regard to Probability of Default (PD), Loss Given Default (LGD), Exposure at Default (EaD), Risk-weighted Assets, and a range of more granular measures applicable to the nature of the credit risk (for example, Loan to Valuation ratios, Days Past Due, Impairments and Write-offs)</li> </ul>	<p><b>Governing Policies</b></p> <ul style="list-style-type: none"> <li>- Group Credit Policy</li> <li>- Business Lending Credit Policy</li> <li>- Home Lending Credit Policy</li> <li>- Unsecured Lending Credit Policy</li> </ul> <p><b>Key Committees</b></p> <ul style="list-style-type: none"> <li>- Board Risk Committee</li> <li>- Group Risk Return Management Committee</li> <li>- Group Credit and Market Risk Committee</li> <li>- Transactional Credit Committee</li> <li>- Group Model Risk Committee</li> </ul>
Operational	The risk of loss resulting from inadequate or failed internal processes, people and systems or external events. This includes legal risk, but excludes strategic and reputation risk.	<ul style="list-style-type: none"> <li>- Economic capital limits</li> <li>- Operational risk limits which ensure the Group operates within Board defined limits which can include limits, settings and indicators applicable to the management of operational risk such as actual financial losses, customer complaints, control environment and technology incidents.</li> <li>- Risk maturity assessment</li> </ul>	<p><b>Governing Policies</b></p> <ul style="list-style-type: none"> <li>- Operational Risk Management Framework</li> <li>- Business Continuity Management Policy</li> <li>- Group Executive Protection Policy</li> <li>- Group Operational Risk Management Policy</li> <li>- Information Risk Policy</li> <li>- Group Model Risk Policy</li> <li>- Outsourcing and Offshoring Policy</li> <li>- Physical Security Policy</li> <li>- Travel Security Policy</li> </ul> <p><b>Key Committees</b></p> <ul style="list-style-type: none"> <li>- Board Risk Committee</li> <li>- Group Risk Return Management Committee</li> <li>- Group Regulatory, Compliance and Operational Risk Committee</li> </ul>
Compliance	The risk of failing to understand and comply with relevant laws, regulations, licence conditions, supervisory requirements, self-regulatory industry codes of conduct and voluntary initiatives, as well as internal policies, standards, procedures, and frameworks.	<ul style="list-style-type: none"> <li>- Significant and reportable legal or regulatory breaches</li> <li>- Financial crime internal policy breaches</li> <li>- Compliance obligation Consolidated Control Rating effectiveness</li> </ul>	<p><b>Governing Policies</b></p> <ul style="list-style-type: none"> <li>- Compliance Obligation Management Policy</li> <li>- Conflicts of Interest Policy</li> <li>- Cross Border Policy</li> <li>- Customer Complaints Handling Policy</li> <li>- G20 Risk Mitigation Policy</li> <li>- Anti-Bribery and Corruption Policy</li> <li>- Anti-Fraud Policy</li> <li>- Anti-Money Laundering and Counter-terrorism Financing Policy</li> <li>- Economic and Trade Sanctions Policy</li> </ul> <p><b>Key Committees</b></p> <ul style="list-style-type: none"> <li>- Board Risk Committee</li> <li>- Group Risk Return Management Committee</li> <li>- Group Regulatory, Compliance Operations Risk Committee</li> <li>- Financial Crime Compliance Risk Committee</li> </ul>
Conduct	The risk that any action of the Group will result in unfair outcomes for customers.	<ul style="list-style-type: none"> <li>- Measured through specific operational risk, compliance risk, regulatory risk and strategic risk measures</li> </ul>	<p><b>Governing Policies</b></p> <ul style="list-style-type: none"> <li>- Conduct Risk Framework</li> </ul> <p><b>Key Committees</b></p> <ul style="list-style-type: none"> <li>- Board Risk Committee</li> <li>- Group Risk Return Management Committee</li> <li>- Group Regulatory, Compliance and Operational Risk Committee</li> </ul>



Material risk	Definition	Key measures	Governing policies and key committees
Balance Sheet and Liquidity	<p>Balance sheet risk relates to key banking book structural risks such as interest rate risk, capital risk, foreign exchange risk and liquidity risk.</p> <p>Liquidity risk relates to the risk that entities in the Group are unable to meet their financial obligations to customers, including but not limited to providing them with borrowings when required and repaying deposits as they mature.</p>	<ul style="list-style-type: none"> <li>- Economic capital limits (Value at Risk (VaR) limit))</li> <li>- Earnings at risk limits</li> <li>- Liquidity Coverage ratio (LCR)</li> <li>- Net Stable Funding ratio (NSFR)</li> <li>- Equity risk</li> <li>- CET1 capital</li> </ul>	<p><b>Governing Policies</b></p> <ul style="list-style-type: none"> <li>- Group Capital Risk Policy</li> <li>- Liquidity Risk Policy</li> <li>- Interest Rate Risk in the Banking Book Policy</li> <li>- Foreign Exchange Risk in the Banking Book Policy</li> <li>- Equity Risk Policy</li> <li>- Funds Transfer Pricing Policy</li> <li>- Third Party Securitisation Policy</li> </ul> <p><b>Key Management Committees</b></p> <ul style="list-style-type: none"> <li>- Board Risk Committee</li> <li>- Group Risk Return Management Committee</li> <li>- Group Asset and Liability Committee</li> <li>- Group Model Risk Committee</li> <li>- Group Credit and Market Risk Committee</li> </ul>
Market	<p>The risk of losses arising from trading activities including proprietary trading, undertaken by the Group. Losses can arise from a change in the value of positions in financial instruments or their hedges due to adverse movements in market prices. This includes changes in interest rates, foreign exchange rates, commodity and equity prices, and credit spreads.</p>	<ul style="list-style-type: none"> <li>- Economic capital limits</li> <li>- Trading desk limits and settings (for example, stop loss limits)</li> <li>- Globally diversified VaR and inner stress limits</li> </ul>	<p><b>Governing Policies</b></p> <ul style="list-style-type: none"> <li>- Group Traded Market Risk Policy</li> </ul> <p><b>Key Committees</b></p> <ul style="list-style-type: none"> <li>- Board Risk Committee</li> <li>- Group Risk Return Management Committee</li> <li>- Group Credit and Market Risk Committee</li> <li>- Group Model Risk Committee</li> </ul>
Regulatory	<p>The risk of:</p> <ul style="list-style-type: none"> <li>- Damaging the Group's relationships with its regulators through non-compliance with regulatory requirements (including laws, regulations, standards, guidance, codes and policies), failing to inform regulators on issues impacting, or potentially impacting, the Group, and not meeting information requests and/or regulators review findings.</li> <li>- Failing to identify, monitor and implement changes in the legislative and regulatory environment, and taking opportunities to shape the development of emerging regulatory requirements.</li> </ul>	<ul style="list-style-type: none"> <li>- Risk limits set to align with the expectations of the Group's key regulators.</li> </ul>	<p><b>Governing Policies</b></p> <ul style="list-style-type: none"> <li>- Regulatory Engagement Procedure</li> <li>- Regulatory Change Procedure</li> <li>- Regulatory Risk Oversight Program</li> </ul> <p><b>Key Committees</b></p> <ul style="list-style-type: none"> <li>- Group Risk Return Management Committee</li> <li>- Group Regulatory, Compliance and Operational Risk Committee</li> </ul>
Strategic	<p>The risk associated with the pursuit of strategic objectives articulated in the One NAB Plan.</p> <p>Strategic execution risk is the risk that the Group fails to execute the chosen strategy.</p>	<ul style="list-style-type: none"> <li>- Measures as outlined in the One NAB Plan</li> </ul>	<p><b>Governing Policies</b></p> <ul style="list-style-type: none"> <li>- Group Investment Policy</li> <li>- Group Project Policy</li> </ul> <p><b>Key Committees</b></p> <ul style="list-style-type: none"> <li>- Group Risk Return Management Committee</li> </ul>

## Section 4

### Capital

#### 4.1 Capital Adequacy

##### Capital Management Strategy

The Capital Management Strategy considers how the Group will meet its capital requirements and is focused on adequacy, efficiency and flexibility. The amount of capital that is held considers risk appetite and is informed by the ICAAP to assess required levels of capital, including regulatory requirements. This approach is consistent across the Group's subsidiaries.

The Capital Management Strategy covers the Group's:

- capital outlook, including the capital forecast
- risks and potential upsides to the forecast
- capital initiatives over the plan period
- dividend outlook and appropriateness
- capital distribution obligations
- subsidiary capital initiatives.

The Capital Management Strategy also considers stressed scenarios and sensitivities to ensure the Group maintains capital adequacy in these situations and can adjust plans accordingly if required.

The Board sets capital targets above the internal risk-based assessment of capital. Target ranges take into account market, regulatory and rating agency expectations. The operating targets are regularly reviewed in the context of the external economic and regulatory outlook with the objective of maintaining balance sheet strength.

In July 2017, APRA announced a new CET1 ratio requirement for Australian major banks of at least 10.5% by 1 January 2020 to ensure the sector is viewed as 'unquestionably strong', with finalisation of international capital reforms not expected to require any further overall increases to Australian CET1 capital requirements.

##### Risk Identification and Assessment

The process of assessing capital adequacy begins with the Group measuring all material risks and where appropriate, generating a capital adequacy requirement. In managing the business, the Group considers both regulatory and economic capital requirements, as summarised in the following table.

	<b>Regulatory capital</b>	<b>Economic capital</b>
<b>Nature</b>	Regulatory view of the capital required to be held to protect against risks associated with business activities.	Management's view of the capital required to be held to support the specific risk characteristics of the business and its portfolio.
<b>Calculation</b>	Calculated under regulatory requirements and expressed as a percentage of RWA.	Internal risk-based models.
<b>Risk types</b>	Credit risk, market risk, operational risk and interest rate risk in the banking book.	As per regulatory capital requirements, plus other material risks, including business/strategic risk, equity risk and foreign exchange risk in the banking book.

The ICAAP describes capital adequacy for the Group and the banking group at both Level 1 and Level 2. The process is designed to assess the Group's ability to withstand unexpected losses and continue to support customers and protect depositors through a range of adverse scenarios. Key features include:

- identification of risks arising from the Group's activities for which capital is a mitigant
- calibration of capital limits commensurate with the Group's risk profile and appetite and appropriate triggers to mitigate potential limit breaches
- assessment of capital adequacy on a current and forward looking basis, including scenario planning
- detail on capital management actions available to provide additional capital as required
- processes for reporting on the ICAAP and its outcomes to the Board and senior management and ensuring that the ICAAP is taken into account in making business decisions.

##### Governance, Reporting and Oversight

The ICAAP document, Capital Management Strategy, Group Risk Appetite Statement and One NAB Plan together detail the governance, management, and reporting of the Group's capital adequacy. These documents are reviewed and endorsed by key management committees, including the Group Asset and Liability Committee and the Group Risk Return Management Committee, and are approved by the Board.

The ICAAP is supported by the Group Capital Risk Policy, which defines the framework for the management, monitoring and governance of the Group's capital position.

Group Treasury is responsible for managing capital risk. The Group and subsidiary treasuries each prepare an annual Capital Management Strategy (incorporating capital targets) and execute the Board-approved strategies.

Group Balance Sheet and Liquidity Risk is independent of Group Treasury and is responsible for capital oversight. Group Balance Sheet and Liquidity Risk maintains a risk framework to provide oversight and monitoring of stress testing of the Group's capital position, capital planning and forecasting, and capital activities to ensure compliance with regulatory capital standards.

Group Treasury, along with Group Balance Sheet and Liquidity Risk both monitor the Group's capital position on a monthly basis and report to management and Board committees.

#### **Embedding Capital Requirements in Business Decisions**

Capital requirements are taken into consideration in:

- product and facility pricing decisions
- business development, including acquisitions and divestments
- strategic planning
- performance measurement and management, including incentive determination
- setting of risk appetite and risk limits, including large exposure limits, industry limits and country limits.

**Table 4.1A: Risk-weighted Assets**

The following table provides RWA for each risk type.

	<b>As at</b>	
	<b>30 Sep 18</b>	<b>31 Mar 18</b>
	<b>\$m</b>	<b>\$m</b>
<b>Credit risk <sup>(1)</sup></b>		
<b>Subject to internal ratings based (IRB) approach</b>		
Corporate (including Small and Medium Enterprises (SME))	116,709	115,478
Sovereign	1,293	1,291
Bank	10,042	10,751
Residential mortgage	103,868	102,448
Qualifying revolving retail	3,993	4,124
Retail SME	6,531	6,573
Other retail	3,419	3,517
<b>Total IRB approach</b>	<b>245,855</b>	<b>244,182</b>
<b>Specialised lending</b>	<b>60,444</b>	<b>59,899</b>
<b>Subject to standardised approach</b>		
Residential mortgage	1,558	1,623
Corporate	4,670	4,436
Other	493	513
<b>Total standardised approach</b>	<b>6,721</b>	<b>6,572</b>
<b>Other</b>		
Securitisation exposures	4,598	4,313
Credit Value Adjustment	7,670	8,958
Central counterparty default fund contribution guarantee	1,138	1,029
Other <sup>(2)</sup>	4,955	4,929
<b>Total other</b>	<b>18,361</b>	<b>19,229</b>
<b>Total credit risk</b>	<b>331,381</b>	<b>329,882</b>
<b>Market risk</b>	9,460	8,656
<b>Operational risk</b>	37,500	39,027
<b>Interest rate risk in the banking book</b>	11,343	9,850
<b>Total RWA</b>	<b>389,684</b>	<b>387,415</b>

<sup>(1)</sup> Assets that are not subject to specific risk weights incorporate a scaling factor of 1.06 in accordance with APS 113 Capital Adequacy: Internal Ratings-based Approach to Credit Risk.

<sup>(2)</sup> Other includes non-lending assets and an RBNZ overlay adjustment for the New Zealand agriculture portfolio.

**Table 4.1B: Capital and Leverage Ratios**

The following tables provide:

- the key capital ratios for the Level 1 and Level 2 Group and for the Group's significant overseas bank subsidiary.
- the leverage ratio for the Level 2 Group as at 30 September 2018 and for the three previous quarters.

	<b>As at</b>	
	<b>30 Sep 18</b>	<b>31 Mar 18</b>
	<b>%</b>	<b>%</b>
<b>Capital ratios</b>		
Level 2 Common Equity Tier 1 capital ratio	10.20	10.21
Level 2 Tier 1 capital ratio	12.38	12.40
Level 2 Total capital ratio	14.12	14.43
Level 1 Common Equity Tier 1 capital ratio	10.43	10.54
Level 1 Tier 1 capital ratio	12.78	12.92
Level 1 Total capital ratio	14.65	15.05
Significant bank subsidiary <sup>(1)</sup>		
BNZ Common Equity Tier 1 capital ratio	10.56	10.75
BNZ Tier 1 capital ratio	11.96	12.22
BNZ Total capital ratio	13.59	13.12

<sup>(1)</sup> BNZ's capital ratios have been derived under the RBNZ's capital adequacy framework.

	<b>As at</b>			
	<b>30 Sep 18</b>	<b>30 Jun 18</b>	<b>31 Mar 18</b>	<b>31 Dec 17</b>
	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>
Tier 1 capital	48,254	46,967	48,048	47,396
Total exposures <sup>(1)</sup>	896,120	900,904	877,544	882,207
<b>Leverage ratio (%) <sup>(1)</sup></b>	<b>5.38%</b>	<b>5.21%</b>	<b>5.48%</b>	<b>5.37%</b>

<sup>(1)</sup> The 30 June 2018, 31 March 2018 and 31 December 2017 total exposures have been restated from those previously disclosed (\$887,837 million, \$864,625 million and \$870,574 million respectively), resulting in a restatement to the leverage ratio at those dates (previously disclosed as 5.29%, 5.56% and 5.44% respectively).

## 4.2 Capital Structure

The Group's capital structure comprises various forms of capital which are summarised in the table below.

Common Equity Tier 1 (CET1) capital	Tier 1 capital (T1)	Total capital
CET1 capital consists of the sum of paid-up ordinary share capital, retained profits plus certain other items as defined in APS 111 <i>Capital Adequacy: Measurement of Capital</i> .	CET1 capital plus certain securities with complying loss absorbing characteristics known as Additional Tier 1 capital.	T1 capital plus subordinated debt instruments with complying loss absorbing characteristics known as Tier 2 capital.

CET1 capital contains the highest quality and most effective loss absorbent components of capital, followed by Additional Tier 1 capital and then Tier 2 capital. Further details of Additional Tier 1 and Tier 2 securities are available online in the capital instruments section of the Group's website at [www.capital.nab.com.au/disclaimer-area/capital-intruments.phps](http://www.capital.nab.com.au/disclaimer-area/capital-intruments.phps).

### Table 4.2A: Regulatory Capital Structure

The table below provides the structure of regulatory capital for the Level 2 Group. A detailed breakdown is shown in Table 4.3A *Regulatory Capital Disclosure Template*. Regulatory capital has been calculated in accordance with APS 111 *Capital Adequacy: Measurement of Capital*.

	As at	
	30 Sep 18	31 Mar 18
	\$m	\$m
Common Equity Tier 1 capital before regulatory adjustments	49,489	49,199
Total regulatory adjustments to Common Equity Tier 1 capital	(9,730)	(9,644)
<b>Common Equity Tier 1 capital (CET1)</b>	<b>39,759</b>	<b>39,555</b>
Additional Tier 1 capital before regulatory adjustments	8,495	8,495
Total regulatory adjustments to Additional Tier 1 capital	-	(2)
<b>Additional Tier 1 capital (AT1)</b>	<b>8,495</b>	<b>8,493</b>
<b>Tier 1 capital (T1 = CET1 + AT1)</b>	<b>48,254</b>	<b>48,048</b>
Tier 2 capital before regulatory adjustments	6,838	7,959
Total regulatory adjustments to Tier 2 capital	(84)	(108)
<b>Tier 2 capital (T2)</b>	<b>6,754</b>	<b>7,851</b>
<b>Total capital (TC = T1 + T2)</b>	<b>55,008</b>	<b>55,899</b>

### 4.3 Detailed Capital Disclosures

**Table 4.3A: Regulatory Capital Disclosure Template**

The capital disclosure template is based on the post 1 January 2018 Basel III requirements as the Group is applying the regulatory adjustments under Basel III in full as implemented by APRA.

The information contained in the following table should be read in conjunction with Table 4.3B *Reconciliation between the Group and Level 2 Group Balance Sheet* and Table 4.3C *Reconciliation between the Level 2 Group Balance Sheet and Regulatory Capital Disclosure Template*.

		<b>As at 30 Sep 18</b>
		<b>\$m</b>
<b>Common Equity Tier 1 capital: instruments and reserves</b>		
1	Directly issued qualifying ordinary shares (and equivalent for mutually-owned entities) capital	33,062
2	Retained earnings	16,386
3	Accumulated other comprehensive income (and other reserves)	41
4	Directly issued capital subject to phase out from CET1 (only applicable to mutually-owned companies)	-
5	Ordinary share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	-
<b>6</b>	<b>Common Equity Tier 1 capital before regulatory adjustments</b>	<b>49,489</b>
<b>Common Equity Tier 1 capital: regulatory adjustments</b>		
7	Prudential valuation adjustments	1
8	Goodwill (net of related tax liability)	2,863
9	Other intangibles other than mortgage-servicing rights (net of related tax liability)	2,905
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability)	-
11	Cash-flow hedge reserve	10
12	Shortfall of provisions to expected losses	87
13	Securitisation gain on sale (as set out in paragraph 562 of Basel II framework)	-
14	Gains and losses due to changes in own credit risk on fair valued liabilities	(135)
15	Defined benefit superannuation fund net assets	34
16	Investments in own shares (if not already netted off paid-in capital on reported balance sheet)	-
17	Reciprocal cross-holdings in common equity	-
18	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the ADI does not own more than 10% of the issued share capital (amount above 10% threshold)	-
19	Significant investments in the ordinary shares of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions (amount above 10% threshold)	-
20	Mortgage service rights (amount above 10% threshold)	-
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)	-
22	Amount exceeding the 15% threshold	-
23	of which: significant investments in the ordinary shares of financial entities	-
24	of which: mortgage servicing rights	-
25	of which: deferred tax assets arising from temporary differences	-
<b>APRA specific regulatory adjustments</b>		
26	National specific regulatory adjustments (sum of rows 26a, 26b, 26c, 26d, 26e, 26f, 26g, 26h, 26i and 26j)	3,965
26a	of which: treasury shares	-
26b	of which: offset to dividends declared under a dividend reinvestment plan (DRP), to the extent that the dividends are used to purchase new ordinary shares issued by the ADI	-
26c	of which: deferred fee income	-
26d	of which: equity investments in financial institutions not reported in rows 18, 19 and 23	1,378
26e	of which: deferred tax assets not reported in rows 10, 21 and 25	1,746
26f	of which: capitalised expenses	741
26g	of which: investments in commercial (non-financial) entities that are deducted under APRA prudential requirements	31
26h	of which: covered bonds in excess of asset cover in pools	-
26i	of which: undercapitalisation of a non-consolidated subsidiary	-
26j	of which: other national specific regulatory adjustments not reported in rows 26a to 26i	69
27	Regulatory adjustments applied to Common Equity Tier 1 due to insufficient Additional Tier 1 and Tier 2 to cover deductions	-
<b>28</b>	<b>Total regulatory adjustments to Common Equity Tier 1</b>	<b>9,730</b>
<b>29</b>	<b>Common Equity Tier 1 capital (CET1)</b>	<b>39,759</b>

		As at 30 Sep 18
		\$m
<b>Additional Tier 1 capital: instruments</b>		
30	Directly issued qualifying Additional Tier 1 instruments	6,073
31	of which: classified as equity under applicable accounting standards	-
32	of which: classified as liabilities under applicable accounting standards	6,073
33	Directly issued capital instruments subject to phase out from Additional Tier 1	2,422
34	Additional Tier 1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in group AT1)	-
35	of which: instruments issued by subsidiaries subject to phase out	-
<b>36</b>	<b>Additional Tier 1 capital before regulatory adjustments</b>	<b>8,495</b>
<b>Additional Tier 1 capital: regulatory adjustments</b>		
37	Investments in own Additional Tier 1 instruments	-
38	Reciprocal cross-holdings in Additional Tier 1 instruments	-
39	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the ADI does not own more than 10% of the issued share capital (amount above 10% threshold)	-
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	-
41	National specific regulatory adjustments (sum of rows 41a, 41b and 41c)	-
41a	of which: holdings of capital instruments in group members by other group members on behalf of third parties	-
41b	of which: investments in the capital of financial institutions that are outside the scope of regulatory consolidations not reported in rows 39 and 40	-
41c	of which: other national specific regulatory adjustments not reported in rows 41a and 41b	-
42	Regulatory adjustments applied to Additional Tier 1 due to insufficient Tier 2 to cover deductions	-
<b>43</b>	<b>Total regulatory adjustments to Additional Tier 1 capital</b>	<b>-</b>
<b>44</b>	<b>Additional Tier 1 capital (AT1)</b>	<b>8,495</b>
<b>45</b>	<b>Tier 1 capital (T1 = CET1 + AT1)</b>	<b>48,254</b>
<b>Tier 2 capital: instruments and provisions</b>		
46	Directly issued qualifying Tier 2 instruments	5,227
47	Directly issued capital instruments subject to phase out from Tier 2	1,119
48	Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group T2)	426
49	of which: instruments issued by subsidiaries subject to phase out	-
50	Provisions	66
<b>51</b>	<b>Tier 2 capital before regulatory adjustments</b>	<b>6,838</b>
<b>Tier 2 capital: regulatory adjustments</b>		
52	Investments in own Tier 2 instruments	75
53	Reciprocal cross-holdings in Tier 2 instruments	-
54	Investments in the Tier 2 capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the ADI does not own more than 10% of the issued share capital (amount above 10% threshold)	-
55	Significant investments in the Tier 2 capital banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	-
56	National specific regulatory adjustments (sum of rows 56a, 56b and 56c)	9
56a	of which: holdings of capital instruments in group members by other group members on behalf of third parties	-
56b	of which: investments in the capital of financial institutions that are outside the scope of regulatory consolidation not reported in rows 54 and 55	9
56c	of which: other national specific regulatory adjustments not reported in rows 56a and 56b	-
<b>57</b>	<b>Total regulatory adjustments to Tier 2 capital</b>	<b>84</b>
<b>58</b>	<b>Tier 2 capital (T2)</b>	<b>6,754</b>
<b>59</b>	<b>Total capital (TC = T1 + T2)</b>	<b>55,008</b>
<b>60</b>	<b>Total RWA based on APRA standards</b>	<b>389,684</b>



		As at 30 Sep 18
		\$m
<b>Capital ratios and buffers</b>		
61	Common Equity Tier 1 (as a percentage of RWA)	10.20%
62	Tier 1 (as a percentage of RWA)	12.38%
63	Total capital (as a percentage of RWA)	14.12%
64	Buffer requirement (minimum CET1 requirement of 4.5% plus capital conservation buffer of 2.5% plus any countercyclical buffer requirements expressed as a percentage of RWA) <sup>(1)</sup>	8.03%
65	of which: capital conservation buffer requirement <sup>(1)</sup>	3.50%
66	of which: ADI-specific countercyclical buffer requirements	0.03%
67	of which: G-SIB buffer requirement	n/a
68	Common Equity Tier 1 available to meet buffers (as a percentage of RWA)	10.20%
<b>National minima (if different from Basel III)</b>		
69	National Common Equity Tier 1 minimum ratio (if different from Basel III minimum)	n/a
70	National Tier 1 minimum ratio (if different from Basel III minimum)	n/a
71	National total capital minimum ratio (if different from Basel III minimum)	n/a
<b>Amounts below the thresholds for deduction (not risk-weighted)</b>		
72	Non-significant investments in the capital of other financial entities	957
73	Significant investments in the ordinary shares of financial entities	421
74	Mortgage servicing rights (net of related tax liability)	-
75	Deferred tax assets arising from temporary differences (net of related tax liability)	1,746
<b>Applicable caps on the inclusion of provisions in Tier 2</b>		
76	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	66
77	Cap on inclusion of provisions in Tier 2 under standardised approach	211
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	-
79	Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	1,887
<b>Capital instruments subject to phase-out arrangements (applicable between 1 January 2018 and 1 January 2022)</b>		
80	Current cap on CET1 instruments subject to phase out arrangements	-
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	-
82	Current cap on AT1 instruments subject to phase out arrangements	2,422
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	498
84	Current cap on T2 instruments subject to phase out arrangements	2,249
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-

<sup>(1)</sup> The buffer requirement includes a 1.0% D-SIB capital buffer.

**Table 4.3B: Reconciliation between the Group and Level 2 Group Balance Sheet**

The following table shows the Group's balance sheet and adjustments to derive the Level 2 Group balance sheet as at 30 September 2018. The adjustments remove the assets, liabilities and equity balances of Level 3 entities deconsolidated for regulatory purposes, and reinstates any intragroup assets and liabilities, treating them as external to the Level 2 Group.

	Group balance sheet	Adjustments	Level 2 Group balance sheet	Disclosure template row / Reconciliation table
	\$m	\$m	\$m	
<b>Assets</b>				
Cash and liquid assets	50,188	(172)	50,016	
Due from other banks	30,568	-	30,568	
Trading instruments	78,228	-	78,228	
Debt instruments	42,056	-	42,056	
Other financial assets	10,041	(174)	9,867	
Hedging derivatives	3,840	-	3,840	
Loans and advances	567,981	(1,696)	566,285	
of which: deferred net fee income	606	-	606	Table C
Due from customers on acceptances	3,816	-	3,816	
Property, plant and equipment	1,199	(1)	1,198	
Due from controlled entities	-	69	69	
Investment in non-consolidated controlled entities	-	431	431	Table A
Goodwill and other intangible assets	5,787	(29)	5,758	Table A
Deferred tax assets	2,083	(12)	2,071	Table B
Other assets	10,723	(221)	10,502	
<b>Total assets</b>	<b>806,510</b>	<b>(1,805)</b>	<b>804,705</b>	
<b>Liabilities</b>				
Due to other banks	38,192	-	38,192	
Trading instruments	22,422	-	22,422	
Other financial liabilities	30,437	-	30,437	
of which: change in own credit worthiness	135	-	135	Row 14
Hedging derivatives	2,547	-	2,547	
Deposits and other borrowings	503,145	-	503,145	
Current tax liabilities	103	(8)	95	
Provisions	2,196	-	2,196	
Due to controlled entities	-	301	301	
Bonds, notes and subordinated debt	140,222	(1,690)	138,532	
Other debt issues	6,158	-	6,158	
Other liabilities	8,376	(105)	8,271	
<b>Total liabilities</b>	<b>753,798</b>	<b>(1,502)</b>	<b>752,296</b>	
<b>Net assets</b>	<b>52,712</b>	<b>(303)</b>	<b>52,409</b>	
<b>Equity</b>				
Issued and paid-up ordinary share capital	33,062	-	33,062	Row 1
Other contributed equity	2,920	-	2,920	Table D
<b>Contributed equity</b>	<b>35,982</b>	<b>-</b>	<b>35,982</b>	
Foreign currency translation reserve	(343)	(5)	(348)	
Asset revaluation reserve	82	-	82	
Cost of hedging reserve	(53)	-	(53)	
Cash flow hedge reserve	10	-	10	Row 11
Equity-based compensation reserve	243	-	243	
Debt instruments at fair value through other comprehensive income reserve	22	-	22	
Equity instruments at fair value through other comprehensive income reserve	85	-	85	
<b>Reserves</b>	<b>46</b>	<b>(5)</b>	<b>41</b>	Row 3
Retained profits	16,673	(287)	16,386	Row 2
<b>Total equity (parent entity interest)</b>	<b>52,701</b>	<b>(292)</b>	<b>52,409</b>	
Non-controlling interest in controlled entities	11	(11)	-	
<b>Total equity</b>	<b>52,712</b>	<b>(303)</b>	<b>52,409</b>	

**Table 4.3C: Reconciliation between the Level 2 Group Balance Sheet and Regulatory Capital Disclosure Template**

	<b>As at 30 Sep 18 \$m</b>	<b>Disclosure template row</b>
<b>Table A</b>		
Goodwill and other intangible assets	5,758	
Investment in non-consolidated controlled entities (Level 3)	431	
<b>Total</b>	<b>6,189</b>	
<i>Less</i>		
Goodwill (net of related tax liability)	2,863	Row 8
Other intangible assets other than mortgage-servicing rights (net of related tax liability)	2,905	Row 9
<b>Investment in non-consolidated controlled entities less intangible assets held by those entities</b>	<b>421</b>	Row 73
<i>Add</i>		
Equity investments in financial institutions	957	Row 72
<b>Equity investments in financial institutions</b>	<b>1,378</b>	Row 26d

	<b>As at 30 Sep 18 \$m</b>	<b>Disclosure template row</b>
<b>Table B</b>		
Deferred tax assets	2,071	
<i>Add</i>		
Deferred tax liabilities on intangible assets and defined benefit superannuation assets	37	
Unrealised revaluations on funding vehicles	(362)	
<b>Deferred tax assets not reported in rows 10, 21 and 25 of the disclosure template</b>	<b>1,746</b>	Row 26e

	<b>As at 30 Sep 18 \$m</b>	<b>Disclosure template row</b>
<b>Table C</b>		
Deferred net fee income	606	
Capitalised debt raising costs	134	
Capitalised securitisation start-up costs	1	
<b>Capitalised expenses</b>	<b>741</b>	Row 26f

	<b>As at 30 Sep 18 \$m</b>	<b>Disclosure template row</b>
<b>Table D</b>		
Face value of NAB Convertible Preference Shares	1,514	
Face value of NAB Convertible Preference Shares II	1,717	
Face value of NAB Capital Notes	1,343	
Face value of NAB Capital Notes II	1,499	
<b>Directly issued qualifying AT1 instruments classified as liabilities</b>	<b>6,073</b>	Row 30
National Income Securities	1,945	
Trust Preferred Securities	975	
<b>Directly issued AT1 instruments subject to phase out</b>	<b>2,920</b>	
<i>which comprises:</i>		
Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	498	Row 83
Current cap on AT1 instruments subject to phase out arrangements	2,422	Row 33, 82

	<b>As at 30 Sep 18 \$m</b>	<b>Disclosure template row</b>
<b>Table E</b>		
Subordinated medium term notes	5,227	
<b>Directly issued qualifying T2 instruments</b>	<b>5,227</b>	Row 46
Subordinated medium term notes	40	
Perpetual floating rate notes	73	
Global medium term notes	508	
AT1 in excess of transitional cap transferred to T2	498	Row 83
<b>Directly issued T2 instruments subject to phase out</b>	<b>1,119</b>	Row 47

	<b>As at 30 Sep 18 \$m</b>	<b>Disclosure template row</b>
<b>Table F</b>		
Subordinated notes issued by BNZ	426	
<b>T2 instruments issued by subsidiaries and held by third parties (amount allowed in group T2)</b>	<b>426</b>	Row 48

**Table 4.3D: Entities Excluded from Level 2 Group Balance Sheet**

The following table provides details of the main entities included in the accounting scope of consolidation and excluded from the regulatory scope of consolidation. Entities with minor amounts of assets and liabilities have been excluded.

Entity name	Principal activity	As at 30 Sep 18	
		Total assets \$m	Total liabilities \$m
Antares Capital Partners Limited	Investment	30	6
BNZ Life Insurance Limited	Insurance	114	27
MLC Investments Limited	Investment	159	57
nabInvest Capital Partners Proprietary Limited	Funds Manager	31	5
National RMBS Trust 2018-1	Securitisation	1,696	1,697
Navigator Australia Limited	Investment	67	12
NULIS Nominees (Australia) Limited	Superannuation	446	56

**Table 4.3E: Countercyclical Capital Buffer**

The countercyclical capital buffer represents an extension to the capital conservation buffer and may require an ADI to hold additional CET1 capital of up to 2.5% of total RWA. The countercyclical capital buffer is calculated as the weighted average of the countercyclical capital buffers applied by regulators in each jurisdiction in which ADIs have private credit exposures (noting that the buffer applied by APRA in Australia is currently zero). It is calculated in accordance with APS 110 *Capital Adequacy* (Attachment C). Its primary objective is to use a buffer of capital to achieve the broader macroprudential goal of protecting the banking sector from periods of excess aggregate credit growth that have often been associated with the build-up of system-wide risk. The Level 2 Group's capital ratios remain above buffer requirements as shown in Table 4.3A *Regulatory Capital Disclosure Template* rows 61 to 68.

The following table provides the geographic breakdown of private sector credit exposures (gross of eligible financial collateral) and associated RWA that are used to calculate the Level 2 Group's countercyclical capital buffer ratio. The geographic breakdown is at a country level based on the country of ultimate risk.

Country	As at 30 Sep 18			
	Countercyclical capital buffer %	Private sector credit exposure \$m	RWA <sup>(1)</sup> \$m	ADI-specific buffer %
Hong Kong	1.88	3,060	1,247	0.008
Norway	2.00	178	66	0.000
Sweden	2.00	157	78	0.000
United Kingdom <sup>(2)</sup>	0.50	65,968	10,919	0.018
Other <sup>(3)</sup>	-	805,414	300,056	0.000
<b>Total</b>	<b>n/a</b>	<b>874,777</b>	<b>312,366</b>	<b>0.026</b>

<sup>(1)</sup> Represents total private sector (excludes bank and sovereign) credit and specific market risk RWA.

<sup>(2)</sup> In its June 2017 Financial Stability Report, the Financial Policy Committee in the United Kingdom announced an increase in the countercyclical capital buffer rate from 0% to 0.5% effective from 27 June 2018.

<sup>(3)</sup> Other encompasses countries where the Level 2 Group has private sector credit exposures where the countercyclical capital buffer is zero or unannounced.

Country	As at 31 Mar 18			
	Countercyclical capital buffer %	Private sector credit exposure \$m	RWA \$m	ADI-specific buffer %
Hong Kong	1.88	2,714	1,092	0.007
Norway	2.00	86	39	0.000
Sweden	2.00	101	64	0.000
Other	-	856,525	308,600	0.000
<b>Total</b>	<b>n/a</b>	<b>859,426</b>	<b>309,795</b>	<b>0.007</b>

## 4.4 Leverage Ratio

The leverage ratio table below has been prepared in accordance with APS 110 (Attachment D). The leverage ratio is a non-risk based measure that uses exposures to supplement the RWA based capital requirements. In summary, the leverage ratio is intended to:

- restrict the build-up of leverage in the banking sector to avoid destabilising deleveraging processes that can damage the broader financial system and the economy
- reinforce the risk-based requirements with a simple, transparent, non-risk based supplementary measure.

At 30 September 2018 the leverage ratio for the Level 2 Group of 5.38% remains above the BCBS minimum requirement of 3.0% for banks that have not been identified as a global systemically important bank (G-SIB). The ratio exceeds the range of between 3% and 5% as recommended by the Financial System Inquiry. APRA has proposed a minimum leverage ratio requirement of 4% for IRB ADIs and a revised leverage ratio exposure measurement methodology from 1 July 2019.

The Level 2 Group's leverage ratio at 30 September 2018 has decreased by 10 basis points to 5.38% compared to 31 March 2018. The decrease was primarily due to an increase in total exposures of \$18.6 billion. On-balance sheet items (excluding derivatives and securities financing transactions (SFT)) increased by \$9.4 billion due to volume growth and SFT exposures increased by \$6.9 billion.

**Table 4.4A: Leverage Ratio Disclosure Template**

		<b>As at</b>	
		<b>30 Sep 18</b>	<b>31 Mar 18</b>
		<b>\$m</b>	<b>\$m</b>
<b>On-balance sheet exposures</b>			
1	On-balance sheet items (excluding derivatives and securities financing transactions (SFTs), but including collateral)	718,343	708,963
2	(Asset amounts deducted in determining Tier 1 capital)	(9,855)	(9,835)
3	<b>Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of rows 1 and 2)</b>	<b>708,488</b>	<b>699,128</b>
<b>Derivative exposures</b>			
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin) <sup>(1)</sup>	8,530	9,227
5	Add-on amounts for potential future credit exposure (PFCE) associated with all derivatives transactions	19,364	18,677
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the Australian Accounting Standards	-	-
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(2,196)	(1,562)
8	(Exempted central counterparty (CCP) leg of client-cleared trade exposures)	-	-
9	Adjusted effective notional amount of written credit derivatives	5,464	6,836
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(5,464)	(6,452)
11	<b>Total derivative exposures (sum of rows 4 to 10)</b>	<b>25,698</b>	<b>26,726</b>
<b>Securities financing transaction exposures</b>			
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	71,899	72,036
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(14,374)	(21,426)
14	CCR exposure for SFT assets	2,465	2,528
15	Agent transaction exposures	-	-
16	<b>Total Securities financing transaction exposures (sum of rows 12 to 15)</b>	<b>59,990</b>	<b>53,138</b>
<b>Other off-balance sheet exposures<sup>(2)</sup></b>			
17	Off-balance sheet exposure at gross notional amount	188,341	183,816
18	(Adjustments for conversion to credit equivalent amounts)	(86,397)	(85,264)
19	<b>Other off-balance sheet exposures (sum of rows 17 and 18)</b>	<b>101,944</b>	<b>98,552</b>
<b>Capital and total exposures</b>			
20	<b>Tier 1 capital</b>	<b>48,254</b>	<b>48,048</b>
21	<b>Total exposures (sum of rows 3, 11, 16 and 19)</b>	<b>896,120</b>	<b>877,544</b>
<b>Leverage ratio</b>			
22	<b>Leverage ratio</b>	<b>5.38%</b>	<b>5.48%</b>

<sup>(1)</sup> The 31 March 2018 replacement cost associated with all derivative transactions has been restated from that disclosed previously (\$8,852 million).

<sup>(2)</sup> The 31 March 2018 other off-balance sheet exposures (made up of the gross notional amount less adjustments for conversion to credit equivalent amounts) have been restated from that disclosed previously (\$160,222 million and \$74,214 million respectively).

Table 4.4B: Summary Comparison of Accounting Assets vs Leverage Ratio Exposure Measure

		As at	
		30 Sep 18	31 Mar 18
		\$m	\$m
Items			
1	Total consolidated assets as per published financial statements	806,510	796,068
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(1,805)	(2,347)
3	Adjustment for assets held on the balance sheet in a fiduciary capacity pursuant to the Australian Accounting Standards but excluded from the leverage ratio exposure measure	-	-
4	Adjustments for derivative financial instruments	(3,139)	(7,422)
5	Adjustment for SFTs (i.e. repos and similar secured lending)	2,465	2,528
6	Adjustment for off-balance sheet exposures (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	101,944	98,552
7	Other adjustments	(9,855)	(9,835)
8	<b>Leverage ratio exposure</b>	<b>896,120</b>	<b>877,544</b>

## Section 5

### Credit Risk

#### 5.1 General Disclosures

Credit risk is the potential that a customer will fail to meet its obligations to the Group in accordance with agreed terms.

The Group's approach to credit risk management is designed to:

- inform future direction and broader strategic priorities
- maintain exposure to credit risk within acceptable parameters while maximising the Group's risk-adjusted rate of return and ensure alignment to risk appetite
- be embedded within the Group's day-to-day business.

#### Structure and Organisation

The Board delegates credit decision-making authority to the Board Risk Committee and then through the organisation via the Group Chief Executive Officer and Group Chief Risk Officer, who set the Delegated Commitment Authority (DCA) for the Group Chief Credit Officer. The Group Chief Credit Officer sub-delegates the decision-making authority to the Group's divisions and individuals.

The Group Risk Return Management Committee and its subcommittees oversee the Group's credit risk appetite, principles, policies, models and systems for the management of credit risk. Value chain risk management committees are responsible for implementing these disciplines at a divisional level.

The Board Risk Committee or its delegates are able to set limits on the amount of risk accepted at single counterparty, counterparty group, geographic or industry levels. These limits are consistent with the Group's risk appetite. Such risks are monitored on a regular basis and are subject to annual or more frequent reviews.

#### Management

Exposure to credit risk is managed by regularly analysing the ability of counterparties and potential counterparties to meet principal and interest repayment obligations, and by changing lending limits and lending conditions where appropriate.

Group Credit Policy encompasses the Group's:

- credit risk appetite and principles
- credit underwriting standards
- approach to ensure compliance with regulatory standards.

Senior management and line management within each division have primary responsibility for ensuring their respective areas follow the Group's credit policies, processes and standards.

The credit risk functions are charged with implementing a sound risk framework to maintain appropriate asset quality across the Group in line with credit risk appetite, credit risk underwriting standards and policy.

Credit Risk plays a key role in managing risk appetite, credit risk oversight, portfolio measurement, assisting businesses with portfolio management, and measuring compliance with strategic targets and limits. Credit Risk also:

- owns the credit risk policies and systems, concentration limits, large counterparty credit approvals and the management of large underperforming loans
- ensures that such policies and systems comply with the various regulatory and prudential requirements
- owns and monitors the performance of credit models and methodology.

A key assurance area across non-retail banking activities is the Asset Quality Assurance function. This function is responsible and accountable for independently reviewing and reporting on asset quality lending process standards across transaction-managed lending portfolios. The function operates independently from the credit approval process and reports its findings to the respective divisions and risk management committees highlighting adverse trends and required remedial action.

#### Monitoring and Reporting

The Group has a comprehensive process for reporting credit and asset quality. The Group and divisional Chief Risk Officers receive regular reports covering credit risk, credit quality, asset concentrations, asset quality, environmental and social governance risk, material exposures, defaults and assurance outcomes for retail and non-retail loans. These reports incorporate key credit risk measures including economic capital and detailed analysis of concentration risk, Transactional Credit Council approvals and updates on defaulted counterparties. Key reports are provided to the internal committees, value chain risk management committees and the Board Risk Committee.



Periodically, Credit Risk provides the Board Risk Committee and the Group Risk Return Management Committee with portfolio and industry reviews, as well as the outcome of portfolio stress testing.

### Definitions of Default and Impairment

Default occurs when a loan obligation is 90 days or more past due, or when it is considered unlikely that the credit obligation to the Group will be paid in full without recourse to actions, such as realisation of security.

A facility is classified as impaired when the ultimate ability to collect principal and interest and other amounts (including legal, enforcement and realisation costs) in a timely manner is compromised.

Impaired facilities consist of:

- retail loans (excluding unsecured portfolio managed facilities) which are contractually 90 days or more past due with insufficient security to cover principal and arrears of interest revenue
- unsecured portfolio managed facilities which are 180 days past due (if not written off)
- non-retail loans which are contractually past due and / or sufficient doubt exists about the ability to collect principal and interest in a timely manner
- off-balance sheet credit exposures where current circumstances indicate that losses may be incurred.

### Creation of Specific Provisions, Collective Provisions and the General Reserve for Credit Losses

#### Specific provision for credit impairment

A specific provision is raised for impaired facilities for which a loss is expected and represents the estimated shortfall between the gross carrying value of the asset and the estimated future cash flows, including the estimated realisable value of securities after costs.

#### Collective provision for credit impairment

Collective provisions are raised for facilities that are performing or facilities in default but for which no loss is expected. This process involves grouping financial assets with similar credit risk characteristics and collectively assessing them for expected loss in accordance with the requirements of AASB 9 *Financial Instruments*.

The assessment of collective provisions for retail assets relies on the portfolio delinquency profile and risk characteristics of credit rating models, while the non-retail assessment relies on the risk characteristics of credit rating models.

Collective provisions also incorporate an estimate of the expected loss using management's forward looking assessment of macroeconomic and industry specific factors. This process includes the Group's judgements and reasonable estimates in line with the requirements of AASB 9.

The Group's collective provision is disclosed in the 2018 Annual Financial Report.

Provisions for facilities in default but for which no loss is expected are reported as additional regulatory specific provisions within this report.

#### General reserve for credit losses

APS 220 *Credit Quality* requires a reserve to be held to cover credit losses estimated but not certain to arise in the future over the full life of all individual facilities. The General Reserve for Credit Losses (GRCL) represents an appropriation of retained profits to non-distributable reserves when the regulatory reserve is greater than the accounting provision. The GRCL is calculated as a collective provision for credit impairment, excluding provisions for facilities in default but for which no loss is expected.

#### Write-offs

When an asset is considered uncollectible, it is written off against the related provision. Such assets are written off after all the necessary recovery procedures have been completed and the amount of the loss has been determined. Recoveries of amounts post write off are offset against the credit impairment charge in the income statement.

### Presentation of Credit Risk Information

Information presented in this section excludes credit risk information in respect of certain securitisation exposures and non-lending assets. In particular, it excludes information on third party securitisation exposures and own asset securitisations with capital relief which have separate disclosures in Section 6: *Securitisation*.

#### Exposure at default

In order to provide better alignment to the market disclosures of other IRB accredited ADIs, the Group has changed the reporting of EaD from a pre credit risk mitigation basis to post credit risk mitigation basis. EaD throughout this section represents credit risk exposures net of offsets for eligible financial collateral. In order to provide comparatives determined on the same basis, the 31 March 2018 EaD values have been restated from those disclosed previously.

**Table 5.1A: Credit Risk Exposures Summary**

The following table provides information on credit risk by asset class. Credit risk exposure is shown net of eligible financial collateral.

Exposure type	As at 30 Sep 18					6 months ended 30 Sep 18
	Total exposure (EaD)	Risk-weighted assets <sup>(1)</sup>	Regulatory expected loss	Impaired facilities	Specific provision for credit impairment <sup>(2)</sup>	Net write-offs
	\$m	\$m	\$m	\$m	\$m	\$m
<b>Subject to IRB approach</b>						
Corporate (including SME)	234,725	116,709	1,340	970	467	67
Sovereign	63,165	1,293	2	-	-	-
Bank	36,403	10,042	13	-	-	-
Residential mortgage	384,732	103,868	958	289	87	33
Qualifying revolving retail	11,339	3,993	246	-	-	104
Retail SME	17,934	6,531	161	77	45	20
Other retail	4,336	3,419	145	4	3	55
<b>Total IRB approach</b>	<b>752,634</b>	<b>245,855</b>	<b>2,865</b>	<b>1,340</b>	<b>602</b>	<b>279</b>
<b>Specialised lending</b>	<b>68,040</b>	<b>60,444</b>	<b>932</b>	<b>172</b>	<b>61</b>	<b>9</b>
<b>Subject to standardised approach</b>						
Residential mortgage	2,139	1,558	-	8	4	-
Corporate	13,260	4,670	-	1	8	1
Other	1,134	493	-	-	-	-
<b>Total standardised approach</b>	<b>16,533</b>	<b>6,721</b>	<b>-</b>	<b>9</b>	<b>12</b>	<b>1</b>
<b>Total</b>	<b>837,207</b>	<b>313,020</b>	<b>3,797</b>	<b>1,521</b>	<b>675</b>	<b>289</b>

<sup>(1)</sup> Assets that are not subject to specific risk weights incorporate a scaling factor of 1.06 in accordance with APS 113.

<sup>(2)</sup> For regulatory reporting, collective provisions on defaulted or otherwise non-performing assets are treated as a regulatory specific provision.

Exposure type	As at 31 Mar 18					6 months ended 31 Mar 18
	Total exposure (EaD) <sup>(1)</sup>	Risk-weighted assets	Regulatory expected loss	Impaired facilities	Specific provision for credit impairment	Net write-offs
	\$m	\$m	\$m	\$m	\$m	\$m
<b>Subject to IRB approach</b>						
Corporate (including SME)	225,040	115,478	1,413	1,051	496	33
Sovereign	69,248	1,291	2	-	-	-
Bank	37,650	10,751	13	-	-	-
Residential mortgage	377,918	102,448	972	286	93	19
Qualifying revolving retail	11,617	4,124	265	-	-	77
Retail SME	17,685	6,573	158	81	42	17
Other retail	4,477	3,517	155	4	3	56
<b>Total IRB approach</b>	<b>743,635</b>	<b>244,182</b>	<b>2,978</b>	<b>1,422</b>	<b>634</b>	<b>202</b>
<b>Specialised lending</b>	<b>68,282</b>	<b>59,899</b>	<b>914</b>	<b>177</b>	<b>64</b>	<b>5</b>
<b>Subject to standardised approach</b>						
Residential mortgage	2,258	1,623	-	9	5	1
Corporate	11,986	4,436	-	1	7	3
Other	1,116	513	-	-	-	-
<b>Total standardised approach</b>	<b>15,360</b>	<b>6,572</b>	<b>-</b>	<b>10</b>	<b>12</b>	<b>4</b>
<b>Total</b>	<b>827,277</b>	<b>310,653</b>	<b>3,892</b>	<b>1,609</b>	<b>710</b>	<b>211</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

## Credit Risk Exposures by Measurement Approach

Table 5.1B: Total and Average Credit Risk Exposures

The following table provides a breakdown of credit risk exposures (net of eligible financial collateral). The average credit risk exposure is the simple average of the credit risk exposure at the beginning and end of the reporting period.

As at 30 Sep 18					6 months ended 30 Sep 18
Exposure type	On-balance sheet exposure \$m	Non-market related off- balance sheet \$m	Market related off-balance sheet \$m	Total exposure \$m	Average total exposure \$m
<b>Subject to IRB approach</b>					
Corporate (including SME)	150,239	68,358	16,128	234,725	229,882
Sovereign	58,584	485	4,096	63,165	66,207
Bank	24,936	3,055	8,412	36,403	37,026
Residential mortgage	334,880	49,852	-	384,732	381,325
Qualifying revolving retail	5,623	5,716	-	11,339	11,478
Retail SME	13,611	4,323	-	17,934	17,810
Other retail	3,160	1,176	-	4,336	4,406
<b>Total IRB approach</b>	<b>591,033</b>	<b>132,965</b>	<b>28,636</b>	<b>752,634</b>	<b>748,134</b>
<b>Specialised lending</b>	<b>57,145</b>	<b>10,295</b>	<b>600</b>	<b>68,040</b>	<b>68,161</b>
<b>Subject to standardised approach</b>					
Residential mortgage	2,012	127	-	2,139	2,199
Corporate	7,441	560	5,259	13,260	12,641
Other	1,133	1	-	1,134	1,125
<b>Total standardised approach</b>	<b>10,586</b>	<b>688</b>	<b>5,259</b>	<b>16,533</b>	<b>15,965</b>
<b>Total exposure (EaD)</b>	<b>658,764</b>	<b>143,948</b>	<b>34,495</b>	<b>837,207</b>	<b>832,260</b>

As at 31 Mar 18 <sup>(1)</sup>					6 months ended 31 Mar 18
Exposure type	On-balance sheet exposure \$m	Non-market related off- balance sheet \$m	Market related off-balance sheet \$m	Total exposure \$m	Average total exposure \$m
<b>Subject to IRB approach</b>					
Corporate (including SME)	143,649	66,634	14,757	225,040	223,749
Sovereign	64,946	508	3,794	69,248	68,167
Bank	24,456	3,443	9,751	37,650	36,919
Residential mortgage	328,796	49,122	-	377,918	375,769
Qualifying revolving retail	5,883	5,734	-	11,617	11,596
Retail SME	13,353	4,332	-	17,685	17,011
Other retail	3,271	1,206	-	4,477	4,469
<b>Total IRB approach</b>	<b>584,354</b>	<b>130,979</b>	<b>28,302</b>	<b>743,635</b>	<b>737,680</b>
<b>Specialised lending</b>	<b>56,673</b>	<b>10,891</b>	<b>718</b>	<b>68,282</b>	<b>68,053</b>
<b>Subject to standardised approach</b>					
Residential mortgage	2,136	122	-	2,258	3,260
Corporate	7,056	526	4,404	11,986	12,012
Other	1,115	1	-	1,116	1,116
<b>Total standardised approach</b>	<b>10,307</b>	<b>649</b>	<b>4,404</b>	<b>15,360</b>	<b>16,388</b>
<b>Total exposures (EaD)</b>	<b>651,334</b>	<b>142,519</b>	<b>33,424</b>	<b>827,277</b>	<b>822,121</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

**Table 5.1C: Credit Risk Exposures by Geography**

The following table provides the credit risk exposures (net of eligible financial collateral) by major geographical areas, derived from the booking office where the exposure was transacted.

Exposure type	As at 30 Sep 18				Total exposure \$m
	Australia \$m	New Zealand \$m	United Kingdom \$m	Other <sup>(1)</sup> \$m	
<b>Subject to IRB approach</b>					
Corporate (including SME)	159,902	40,237	16,647	17,939	234,725
Sovereign	43,942	4,263	5,076	9,884	63,165
Bank	19,895	4,975	5,763	5,770	36,403
Residential mortgage	345,068	39,664	-	-	384,732
Qualifying revolving retail	11,339	-	-	-	11,339
Retail SME	15,973	1,961	-	-	17,934
Other retail	2,235	2,101	-	-	4,336
<b>Total IRB approach</b>	<b>598,354</b>	<b>93,201</b>	<b>27,486</b>	<b>33,593</b>	<b>752,634</b>
<b>Specialised lending</b>	<b>58,456</b>	<b>7,785</b>	<b>776</b>	<b>1,023</b>	<b>68,040</b>
<b>Subject to standardised approach</b>					
Residential mortgage	2,007	21	-	111	2,139
Corporate	9,187	1,015	1,940	1,118	13,260
Other	1,130	-	-	4	1,134
<b>Total standardised approach</b>	<b>12,324</b>	<b>1,036</b>	<b>1,940</b>	<b>1,233</b>	<b>16,533</b>
<b>Total exposure (EaD)</b>	<b>669,134</b>	<b>102,022</b>	<b>30,202</b>	<b>35,849</b>	<b>837,207</b>

<sup>(1)</sup> Other comprises North America and Asia.

Exposure type	As at 31 Mar 18 <sup>(1)</sup>				Total exposure \$m
	Australia \$m	New Zealand \$m	United Kingdom \$m	Other \$m	
<b>Subject to IRB approach</b>					
Corporate (including SME)	156,520	39,938	14,081	14,501	225,040
Sovereign	42,278	5,023	6,415	15,532	69,248
Bank	21,367	5,263	5,215	5,805	37,650
Residential mortgage	338,928	38,990	-	-	377,918
Qualifying revolving retail	11,617	-	-	-	11,617
Retail SME	15,793	1,892	-	-	17,685
Other retail	2,308	2,169	-	-	4,477
<b>Total IRB approach</b>	<b>588,811</b>	<b>93,275</b>	<b>25,711</b>	<b>35,838</b>	<b>743,635</b>
<b>Specialised lending</b>	<b>58,547</b>	<b>8,040</b>	<b>854</b>	<b>841</b>	<b>68,282</b>
<b>Subject to standardised approach</b>					
Residential mortgage	2,114	19	-	125	2,258
Corporate	8,124	1,097	1,825	940	11,986
Other	1,107	-	-	9	1,116
<b>Total standardised approach</b>	<b>11,345</b>	<b>1,116</b>	<b>1,825</b>	<b>1,074</b>	<b>15,360</b>
<b>Total exposures (EaD)</b>	<b>658,703</b>	<b>102,431</b>	<b>28,390</b>	<b>37,753</b>	<b>827,277</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

Table 5.1D: Credit Risk Exposures by Industry

The following table provides the distribution of the credit risk exposures (net of eligible financial collateral), by major industry type. Industry classifications follow ANZSIC Level 1 classifications. To provide for quantitative estimates of risk that are consistent, verifiable, relevant and soundly determined, exposures are disclosed based on the counterparty to which the Group is exposed to credit risk, including guarantors and derivative counterparties.

Exposure type	As at 30 Sep 18												Total
	Accommodation cafes, pubs and restaurants	Agriculture, forestry, fishing and mining	Business services and property services	Commercial property	Construction	Finance and insurance	Manufacturing	Personal	Residential mortgages	Retail and wholesale trade	Transport and storage	Other <sup>(1)</sup>	
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Subject to IRB approach</b>													
Corporate (including SME)	8,354	46,552	18,433	13,349	7,868	46,702	17,674	111	-	27,167	19,900	28,615	234,725
Sovereign	-	-	-	-	-	16,136	-	-	-	-	-	47,029	63,165
Bank	-	-	-	-	-	34,139	-	-	-	-	-	2,264	36,403
Residential mortgage	-	-	-	-	-	-	-	-	384,732	-	-	-	384,732
Qualifying revolving retail	-	-	-	-	-	-	-	11,339	-	-	-	-	11,339
Retail SME	921	4,079	2,375	463	2,127	1,179	1,113	90	-	2,808	947	1,832	17,934
Other retail	-	-	-	-	-	-	-	4,336	-	-	-	-	4,336
<b>Total IRB approach</b>	<b>9,275</b>	<b>50,631</b>	<b>20,808</b>	<b>13,812</b>	<b>9,995</b>	<b>98,156</b>	<b>18,787</b>	<b>15,876</b>	<b>384,732</b>	<b>29,975</b>	<b>20,847</b>	<b>79,740</b>	<b>752,634</b>
<b>Specialised lending</b>	<b>156</b>	<b>1,082</b>	<b>105</b>	<b>61,294</b>	<b>604</b>	<b>3</b>	<b>-</b>	<b>6</b>	<b>-</b>	<b>-</b>	<b>1,371</b>	<b>3,419</b>	<b>68,040</b>
<b>Subject to standardised approach</b>													
Residential mortgage	-	-	-	-	-	-	-	-	2,139	-	-	-	2,139
Corporate	2	110	415	29	66	8,779	343	34	185	821	140	2,336	13,260
Other	-	-	-	-	-	-	-	1,081	17	-	-	36	1,134
<b>Total standardised approach</b>	<b>2</b>	<b>110</b>	<b>415</b>	<b>29</b>	<b>66</b>	<b>8,779</b>	<b>343</b>	<b>1,115</b>	<b>2,341</b>	<b>821</b>	<b>140</b>	<b>2,372</b>	<b>16,533</b>
<b>Total exposure (EaD)</b>	<b>9,433</b>	<b>51,823</b>	<b>21,328</b>	<b>75,135</b>	<b>10,665</b>	<b>106,938</b>	<b>19,130</b>	<b>16,997</b>	<b>387,073</b>	<b>30,796</b>	<b>22,358</b>	<b>85,531</b>	<b>837,207</b>

<sup>(1)</sup> Other includes government, health services and electricity, gas and water supply. It also includes other immaterial industries.

As at 31 Mar 18 <sup>(1)</sup>													
	Accommodation cafes, pubs and restaurants	Agriculture, forestry, fishing and mining	Business services and property services	Commercial property	Construction	Finance and insurance	Manufacturing	Personal	Residential mortgages	Retail and wholesale trade	Transport and storage	Other	Total
Exposure type	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Subject to IRB approach</b>													
Corporate (including SME)	8,000	45,638	16,954	14,257	7,661	40,883	17,868	105	-	26,442	18,755	28,477	225,040
Sovereign	-	-	-	-	-	22,997	-	-	-	-	-	46,251	69,248
Bank	-	-	-	-	-	35,947	-	-	-	-	-	1,703	37,650
Residential mortgage	-	-	-	-	-	-	-	-	377,918	-	-	-	377,918
Qualifying revolving retail	-	-	-	-	-	-	-	11,617	-	-	-	-	11,617
Retail SME	940	4,083	2,231	476	2,101	1,116	1,120	93	-	2,821	931	1,773	17,685
Other retail	-	-	-	-	-	-	-	4,477	-	-	-	-	4,477
<b>Total IRB approach</b>	<b>8,940</b>	<b>49,721</b>	<b>19,185</b>	<b>14,733</b>	<b>9,762</b>	<b>100,943</b>	<b>18,988</b>	<b>16,292</b>	<b>377,918</b>	<b>29,263</b>	<b>19,686</b>	<b>78,204</b>	<b>743,635</b>
<b>Specialised lending</b>	<b>325</b>	<b>818</b>	<b>130</b>	<b>61,162</b>	<b>518</b>	<b>456</b>	<b>-</b>	<b>7</b>	<b>-</b>	<b>-</b>	<b>1,401</b>	<b>3,465</b>	<b>68,282</b>
<b>Subject to standardised approach</b>													
Residential mortgage	-	-	-	-	-	-	-	-	2,258	-	-	-	2,258
Corporate	2	101	418	24	64	7,681	325	24	250	758	130	2,209	11,986
Other	-	-	-	-	-	-	-	1,056	26	-	-	34	1,116
<b>Total standardised approach</b>	<b>2</b>	<b>101</b>	<b>418</b>	<b>24</b>	<b>64</b>	<b>7,681</b>	<b>325</b>	<b>1,080</b>	<b>2,534</b>	<b>758</b>	<b>130</b>	<b>2,243</b>	<b>15,360</b>
<b>Total exposure (EaD)</b>	<b>9,267</b>	<b>50,640</b>	<b>19,733</b>	<b>75,919</b>	<b>10,344</b>	<b>109,080</b>	<b>19,313</b>	<b>17,379</b>	<b>380,452</b>	<b>30,021</b>	<b>21,217</b>	<b>83,912</b>	<b>827,277</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

Table 5.1E: Credit Risk Exposures by Maturity

The following table provides the residual contractual maturity breakdown of the credit risk exposures (net of eligible financial collateral).

The allocation of credit risk exposures to maturity buckets is undertaken on the following basis:

- Overdraft and other similar revolving facilities are allocated to the maturity bucket that most appropriately captures the maturity characteristics of the product.
- Residual contractual maturity for net derivatives credit exposure subject to an ISDA netting agreement are allocated to the maturity bucket of the longest dated derivative within the netting group.
- 'No specified maturity' includes exposures related to credit cards, on demand facilities and guarantees given by the Group with no fixed maturity date.

Exposure type	As at 30 Sep 18				
	<12 months	1 – 5 years	>5 years	No specified maturity	Total exposure
	\$m	\$m	\$m	\$m	\$m
<b>Subject to IRB approach</b>					
Corporate (including SME)	74,015	125,710	27,899	7,101	234,725
Sovereign	22,809	10,813	29,462	81	63,165
Bank	16,711	12,582	6,807	303	36,403
Residential mortgage	31,221	6,711	346,346	454	384,732
Qualifying revolving retail	-	-	-	11,339	11,339
Retail SME	6,357	8,105	2,859	613	17,934
Other retail	255	1,178	777	2,126	4,336
<b>Total IRB approach</b>	<b>151,368</b>	<b>165,099</b>	<b>414,150</b>	<b>22,017</b>	<b>752,634</b>
<b>Specialised lending</b>	<b>28,391</b>	<b>35,320</b>	<b>3,942</b>	<b>387</b>	<b>68,040</b>
<b>Subject to standardised approach</b>					
Residential mortgage	166	112	1,851	10	2,139
Corporate	6,636	1,974	4,405	245	13,260
Other	988	142	4	-	1,134
<b>Total standardised approach</b>	<b>7,790</b>	<b>2,228</b>	<b>6,260</b>	<b>255</b>	<b>16,533</b>
<b>Total exposure (EaD)</b>	<b>187,549</b>	<b>202,647</b>	<b>424,352</b>	<b>22,659</b>	<b>837,207</b>

Exposure type	As at 31 Mar 18 <sup>(1)</sup>				
	<12 months	1 – 5 years	>5 years	No specified maturity	Total exposure
	\$m	\$m	\$m	\$m	\$m
<b>Subject to IRB approach</b>					
Corporate (including SME)	71,038	119,194	27,246	7,562	225,040
Sovereign	29,179	13,127	26,849	93	69,248
Bank	16,254	12,467	8,500	429	37,650
Residential mortgage	32,598	6,810	338,060	450	377,918
Qualifying revolving retail	-	-	-	11,617	11,617
Retail SME	5,872	8,384	2,799	630	17,685
Other retail	267	1,145	871	2,194	4,477
<b>Total IRB approach</b>	<b>155,208</b>	<b>161,127</b>	<b>404,325</b>	<b>22,975</b>	<b>743,635</b>
<b>Specialised lending</b>	<b>30,120</b>	<b>34,124</b>	<b>3,407</b>	<b>631</b>	<b>68,282</b>
<b>Subject to standardised approach</b>					
Residential mortgage	179	151	1,919	9	2,258
Corporate	6,223	1,501	3,980	282	11,986
Other	970	140	6	-	1,116
<b>Total standardised approach</b>	<b>7,372</b>	<b>1,792</b>	<b>5,905</b>	<b>291</b>	<b>15,360</b>
<b>Total exposures (EaD)</b>	<b>192,700</b>	<b>197,043</b>	<b>413,637</b>	<b>23,897</b>	<b>827,277</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.



**Credit Provisions and Losses**
**Table 5.1F: Provisions by Asset Class**

Exposure type	As at 30 Sep 18			6 months ended 30 Sep 18	
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment <sup>(1)</sup>	Specific credit impairment charge	Net write-offs
	\$m	\$m	\$m	\$m	\$m
<b>Subject to IRB approach</b>					
Corporate (including SME)	970	143	467	40	67
Residential mortgage	289	2,166	87	39	33
Qualifying revolving retail	-	65	-	96	104
Retail SME	77	123	45	25	20
Other retail	4	56	3	50	55
<b>Total IRB approach</b>	<b>1,340</b>	<b>2,553</b>	<b>602</b>	<b>250</b>	<b>279</b>
<b>Specialised lending</b>	<b>172</b>	<b>69</b>	<b>61</b>	<b>6</b>	<b>9</b>
<b>Subject to standardised approach</b>					
Residential mortgage	8	22	4	-	-
Corporate	1	4	8	4	1
<b>Total standardised approach</b>	<b>9</b>	<b>26</b>	<b>12</b>	<b>4</b>	<b>1</b>
<b>Total</b>	<b>1,521</b>	<b>2,648</b>	<b>675</b>	<b>260</b>	<b>289</b>
Additional regulatory specific provisions <sup>(1)</sup>			<b>363</b>		

Exposure type	As at 31 Mar 18			6 months ended 31 Mar 18	
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment	Specific credit impairment charge	Net write-offs
	\$m	\$m	\$m	\$m	\$m
<b>Subject to IRB approach</b>					
Corporate (including SME)	1,051	154	496	43	33
Residential mortgage	286	1,956	93	29	19
Qualifying revolving retail	-	70	-	79	77
Retail SME	81	107	42	15	17
Other retail	4	52	3	52	56
<b>Total IRB approach</b>	<b>1,422</b>	<b>2,339</b>	<b>634</b>	<b>218</b>	<b>202</b>
<b>Specialised lending</b>	<b>177</b>	<b>70</b>	<b>64</b>	<b>5</b>	<b>5</b>
<b>Subject to standardised approach</b>					
Residential mortgage	9	18	5	2	1
Corporate	1	-	7	2	3
<b>Total standardised approach</b>	<b>10</b>	<b>18</b>	<b>12</b>	<b>4</b>	<b>4</b>
<b>Total</b>	<b>1,609</b>	<b>2,427</b>	<b>710</b>	<b>227</b>	<b>211</b>
Additional regulatory specific provisions			<b>367</b>		

<sup>(1)</sup> For regulatory reporting, collective provisions on defaulted or otherwise non-performing assets are treated as a regulatory specific provision.

Table 5.1G: Provisions by Industry

The following table provides provisioning information by industry. Industry classifications follow ANZSIC Level 1 classifications.

Industry sector	As at 30 Sep 18			6 months ended 30 Sep 18	
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment <sup>(1)</sup>	Specific credit impairment charge	Net write-offs
	\$m	\$m	\$m	\$m	\$m
Accommodation, cafes, pubs and restaurants	132	17	31	(2)	13
Agriculture, forestry, fishing and mining	325	38	142	31	22
Business services and property services	103	30	51	(1)	11
Commercial property	180	77	63	5	9
Construction	61	32	37	5	14
Finance and insurance	45	7	27	(9)	-
Manufacturing	152	34	102	2	16
Personal	5	126	4	147	159
Residential mortgages	297	2,187	91	39	33
Retail and wholesale trade	152	49	77	27	4
Transport and storage	47	34	28	8	4
Other	22	17	22	8	4
<b>Total</b>	<b>1,521</b>	<b>2,648</b>	<b>675</b>	<b>260</b>	<b>289</b>
Additional regulatory specific provision <sup>(1)</sup>			363		

<sup>(1)</sup> For regulatory reporting, collective provisions on defaulted or otherwise non-performing assets are treated as a regulatory specific provision.

Industry sector	As at 31 Mar 18			6 months ended 31 Mar 18	
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment	Specific credit impairment charge	Net write-offs
	\$m	\$m	\$m	\$m	\$m
Accommodation, cafes, pubs and restaurants	122	17	47	16	12
Agriculture, forestry, fishing and mining	405	55	131	(3)	13
Business services and property services	102	31	64	8	4
Commercial property	188	80	67	4	4
Construction	70	31	45	13	3
Finance and insurance	54	5	38	1	(1)
Manufacturing	176	20	116	22	6
Personal	5	132	3	132	134
Residential mortgages	295	1,973	98	31	19
Retail and wholesale trade	127	44	53	-	11
Transport and storage	46	18	24	-	4
Other	19	21	24	3	2
<b>Total</b>	<b>1,609</b>	<b>2,427</b>	<b>710</b>	<b>227</b>	<b>211</b>
Additional regulatory specific provision			367		

**Table 5.1H: Provisions by Geography**

The following table provides provisioning information by major geographical areas, derived from the booking office where the exposure was transacted.

Geographic region	As at 30 Sep 18			
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment	General reserve for credit losses
	\$m	\$m	\$m	\$m
Australia	1,231	2,527	562	2,547
New Zealand	247	104	97	467
United Kingdom	37	12	13	10
Other <sup>(1)</sup>	6	5	3	30
<b>Total</b>	<b>1,521</b>	<b>2,648</b>	<b>675</b>	<b>3,054</b>
Regulatory specific provisions			363	(363)
Plus reserve created through retained profits				-
<b>General reserve for credit losses (GRCL) <sup>(2)</sup></b>				<b>2,691</b>

<sup>(1)</sup> Other comprises North America and Asia.

<sup>(2)</sup> The GRCL balance allocated across geographic regions of \$3,054 million (March 2018: \$2,938 million) includes \$2,840 million (March 2018: \$2,699 million) of provisions on loans at amortised cost and \$214 million (March 2018: \$239 million) of provisions held on assets and other debt instruments at fair value. Disclosure of the GRCL by geographic area is reflective of internal risk transfers within the Group.

Geographic region	As at 31 Mar 18			
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment	General reserve for credit losses
	\$m	\$m	\$m	\$m
Australia	1,195	2,296	578	2,433
New Zealand	356	113	105	475
United Kingdom	52	13	24	12
Other	6	5	3	18
<b>Total</b>	<b>1,609</b>	<b>2,427</b>	<b>710</b>	<b>2,938</b>
Regulatory specific provisions			367	(367)
Plus reserve created through retained profits				-
<b>General reserve for credit losses (GRCL)</b>				<b>2,571</b>

Table 5.11: Movement in Provisions

The following table provides the movements in the balance of provisions over the reporting period for both specific provisions and the GRCL.

	6 months ended 30 Sep 18	6 months ended 31 Mar 18
	\$m	\$m
<b>General reserve for credit losses</b>		
Collective provision balance at beginning of period	2,699	2,535
Net transfer to specific provision	(103)	(124)
New and increased provision (net of release)	254	277
Foreign currency translation and other adjustments	(10)	11
Collective provision on loans and advances at amortised cost	2,840	2,699
Plus provisions held on assets and other debt instruments at fair value <sup>(1)</sup>	214	239
Less additional regulatory specific provisions	(363)	(367)
<b>General reserve for credit losses</b>	<b>2,691</b>	<b>2,571</b>
<b>Specific provisions</b>		
Balance at beginning of period	709	689
Net transfer from collective provision	103	124
New and increased provisions (net of release)	282	244
Write-backs of specific provisions	(99)	(94)
Write-offs from specific provisions	(317)	(256)
Foreign currency translation and other adjustments	(5)	2
Specific provisions excluding provisions for assets at fair value	673	709
Specific provisions held on assets at fair value	2	1
Additional regulatory specific provisions	363	367
<b>Total regulatory specific provisions</b>	<b>1,038</b>	<b>1,077</b>
<b>Total provisions</b>	<b>3,729</b>	<b>3,648</b>

<sup>(1)</sup> Provisions held on assets at fair value are presented gross of \$6 million regulatory specific provisions for assets held at fair value (March 2018: \$7 million).

### Factors Impacting Loss Experience in the Preceding Period

#### 90+ days past due loans

90+ days past due facilities at 30 September 2018 increased compared to 31 March 2018 due to the IRB residential mortgages portfolio in Australia with a modest increase in delinquencies in most states.

#### Impaired facilities

Impaired facilities at 30 September 2018 decreased compared to 31 March 2018 within the IRB corporate (including corporate SME) portfolio mainly driven by the sustained improvement in conditions for the New Zealand dairy industry resulting in a reduction in the impaired dairy portfolio.

#### Specific provision for credit impairment

Specific provision for credit impairment at 30 September 2018 decreased compared to 31 March 2018, due to a lower level of newly impaired assets within the Australian IRB corporate (including corporate SME) and an increased level of write-offs.

#### Charge for specific provisions

The specific provision charge for the six months ended 30 September 2018 was \$260 million, \$33 million higher than the six months ended 31 March 2018. This increase was largely due to higher charges in the IRB retail portfolios.

#### Net write-offs

Net write-offs increased from \$211 million to \$289 million for the six months ended 30 September 2018, due to a modest increase in the level of write-offs from a low base.

**Table 5.1J (i): Loss Experience**

The following table provides the regulatory expected loss (which are through the cycle loss estimates) compared to the realised actual losses calculated as an exposure weighted average since 2010.

Actual losses (net write-offs) measured over the short-term will differ to regulatory expected loss estimates as actual losses are a lag indicator of the quality of the assets in prior periods. Other differences between these measures are:

- Actual losses do not take into account modelled economic costs such as internal workout costs factored into estimates of loss.
- Regulatory expected loss is based on the quality of exposures at a point in time using long run PDs and stressed LGDs. In most years actual losses would be below the regulatory expected loss estimate.
- Regulatory expected loss includes expected losses on non-defaulted assets which is a function of long-run PDs and downturn stressed LGDs. For defaulted exposures, regulatory expected loss is based on the Group's best estimate of expected loss.

Exposure type	As at 30 Sep 18	
	Exposure weighted average actual loss (net write-offs) <sup>(1)</sup>	Exposure weighted average regulatory expected loss <sup>(1)</sup>
	\$m	\$m
<b>Subject to IRB approach</b>		
Corporate (including SME)	476	2,301
Sovereign	-	5
Bank	5	45
Residential mortgage	83	877
Qualifying revolving retail	155	211
Retail SME	65	242
Other retail	86	145
<b>Total IRB approach</b>	<b>870</b>	<b>3,826</b>

<sup>(1)</sup> Average 12 monthly period since 30 September 2010.

Exposure type	As at 31 Mar 18	
	Exposure weighted average actual loss (net write-offs) <sup>(1)</sup>	Exposure weighted average regulatory expected loss <sup>(1)</sup>
	\$m	\$m
<b>Subject to IRB approach</b>		
Corporate (including SME)	499	2,467
Sovereign	-	2
Bank	2	48
Residential mortgage	93	904
Qualifying revolving retail	172	212
Retail SME	70	249
Other retail	96	150
<b>Total IRB approach</b>	<b>932</b>	<b>4,032</b>

<sup>(1)</sup> Average 12 monthly period since 31 March 2010.

## Accuracy of Risk Estimates

The following tables have been provided to compare the estimates of credit risk factors used within the calculation of regulatory capital with actual outcomes across asset classes. Estimates for specialised lending have not been included as these exposures are subject to the Supervisory Slotting Criteria approach, which relies upon the application of supervisory risk-weights.

A full explanation of the internal ratings process and the application of credit risk models to calculate PD, EaD and LGD is provided within Section 5.3 *Internal Ratings Based Portfolios*.

**Table 5.1J (ii): Accuracy of Risk Estimates for PD and EaD**

The following table compares internal estimates of long-run PD with actual default rates. Averages of actual and estimated PD are calculated using the cohort that is not in default at the beginning of the financial year and averaged out over the nine year observation period. The EaD ratio compares the estimated downturn EaD at the beginning of the financial year against the actual default amount.

Exposure type	As at 30 Sep 18		Ratio of estimated to actual EAD
	Average estimated PD	Average actual PD <sup>(1)</sup>	
	%	%	
<b>Subject to IRB approach</b>			
Corporate (including SME)	1.74	1.77	1.1
Sovereign <sup>(2)</sup>	0.43	0.12	1.1
Bank <sup>(2)</sup>	0.36	0.13	1.1
Residential mortgage <sup>(3)</sup>	0.92	0.88	1.0
Qualifying revolving retail	1.49	1.52	1.1
Retail SME	2.14	2.15	1.1
Other retail	2.69	2.90	1.1

<sup>(1)</sup> These values provide a comparison of internal estimates of long-run PD with actual default rates averaged over a period of nine years to 30 September 2018.

<sup>(2)</sup> Average actual PDs for sovereign and bank exposures are based on a low number of observed defaults.

<sup>(3)</sup> Estimated PDs includes BNZ assets subject to RBNZ calibration overlay.

Exposure type	As at 31 Mar 18		Ratio of estimated to actual EAD
	Average estimated PD <sup>(1)</sup>	Average actual PD <sup>(1)</sup>	
	%	%	
<b>Subject to IRB approach</b>			
Corporate (including SME)	1.72	1.75	1.1
Sovereign	0.46	0.09	1.2
Bank	0.39	0.19	1.0
Residential mortgage	0.94	0.87	1.0
Qualifying revolving retail	1.53	1.51	1.1
Retail SME	2.13	2.15	1.1
Other retail	2.72	2.91	1.1

<sup>(1)</sup> These values provide a comparison of internal estimates of long-run PD with actual default rates averaged over a period of eight years to 31 March 2018.

**Table 5.1J (iii): Accuracy of Risk Estimates for LGD**

The following table compares internal estimates of downturn LGD with actual losses. Actual LGD was calculated using net write-offs from defaults during the observation period with the most recent defaults excluded to allow sufficient time for the workout of the asset and recognition of any losses. For defaults relating to qualifying revolving retail and other retail, this period is the most recent 12 months and for all other asset classes the period is the most recent two years. Estimates are calculated using the downturn LGD at the beginning of the financial year.

Exposure type	As at 30 Sep 18	
	Average estimated downturn LGD <sup>(1)</sup> %	Average actual LGD <sup>(1)</sup> %
<b>Subject to IRB approach</b>		
Corporate (including SME) <sup>(2)</sup>	38.4	24.1
Sovereign <sup>(3)</sup>	45.0	-
Bank <sup>(3)</sup>	51.1	-
Residential mortgage <sup>(4)</sup>	20.6	5.1
Qualifying revolving retail	87.2	54.4
Retail SME	35.8	18.5
Other retail	76.7	44.5

<sup>(1)</sup> These values provide a comparison of internal estimates of downturn LGD with actual losses which were evidenced during the nine years to 30 September 2018.

<sup>(2)</sup> Estimated downturn LGD includes BNZ assets subject to RBNZ regulatory floors.

<sup>(3)</sup> Average actual and estimated downturn LGDs for sovereign and bank exposures have historically been excluded from this table in the instances where a low number of defaults have been observed.

<sup>(4)</sup> Estimated downturn LGD subject to APRA and RBNZ imposed regulatory floors.

Exposure type	As at 31 Mar 18	
	Average estimated downturn LGD <sup>(1)</sup> %	Average actual LGD <sup>(1)</sup> %
<b>Subject to IRB approach</b>		
Corporate (including SME)	38.1	24.5
Sovereign	45.0	-
Bank	52.9	-
Residential mortgage	20.5	5.0
Qualifying revolving retail	87.2	54.0
Retail SME	35.9	18.1
Other retail	76.5	45.0

<sup>(1)</sup> These values provide a comparison of internal estimates of downturn LGD with actual losses which were evidenced during the eight years to 31 March 2018.



## 5.2 Standardised and Supervisory Slotting Portfolios

### Standardised Credit Risk Portfolios

There are several regulatory prescribed portfolios (such as qualifying central clearing counterparties, self-managed superannuation funds and margin lending), plus some other small portfolios where the standardised approach to credit risk is applied by the Group.

Fitch Ratings, Moody's Investor Services and Standard & Poor's credit ratings are used to determine the risk-weights within the APRA standardised approach, as presented in the table below. APRA's external rating grades table is used to map external ratings into an external rating grade or credit rating grade that defines the appropriate risk-weight as outlined in APS 112 *Capital Adequacy: Standardised Approach to Credit Risk*.

#### External rating grade classification

External rating grade	Standard & Poor's	Moody's	Fitch
1	AAA, AA+, AA, AA-	Aaa, Aa1, Aa2, Aa3	AAA, AA+, AA, AA-
2	A+, A, A-	A1, A2, A3	A+, A, A-
3	BBB+, BBB, BBB-	Baa1, Baa2, Baa3	BBB+, BBB, BBB-
4	BB+, BB, BB-	Ba1, Ba2, Ba3	BB+, BB, BB-
5	B+, B, B-	B1, B2, B3	B+, B, B-
6	CCC+, CCC, CCC-, CC, C, D	Caa1, Caa2, Caa3, Ca, C	CCC+, CCC, CCC-, CC, C, D

**Table 5.2A: Standardised Exposures by Risk-weight**

The following table provides the credit risk exposures (net of eligible financial collateral) subject to the standardised approach by risk-weight.

Standardised approach – risk-weights	As at	
	30 Sep 18 Total exposure \$m	31 Mar 18 Total exposure <sup>(1)</sup> \$m
2%	6,275	5,670
4%	1,467	1,082
20%	1,799	1,727
35%	206	227
50%	456	489
75%	878	969
100%	5,160	4,955
150%	27	30
Default Fund Contributions <sup>(2)</sup>	265	211
<b>Total exposure subject to the standardised approach</b>	<b>16,533</b>	<b>15,360</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

<sup>(2)</sup> Default fund contributions to qualifying central clearing counterparties are shown separately as they do not align to the risk-weights above.

**Table 5.2B: Standardised Exposures by Risk Grade**

Asset class by rating grade	As at	
	30 Sep 18 Total exposure \$m	31 Mar 18 Total exposure <sup>(1)</sup> \$m
Residential mortgage		
Unrated	2,139	2,258
Corporate		
External rating grade 2	1,275	865
Unrated	11,985	11,121
Sub-total	13,260	11,986
Other		
Unrated	1,134	1,116
<b>Total exposure subject to the standardised approach</b>	<b>16,533</b>	<b>15,360</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

## Portfolios Subject to Supervisory Risk-weights in the IRB Approach

Specialised lending is represented by the following four sub-asset classes:

- Project finance exposures
- Income-producing real estate exposures
- Object finance exposures
- Commodities finance exposures.

The Group maps its internal rating grades for specialised lending to the five supervisory slotting categories of strong, good, satisfactory, weak and default. The criteria to map these exposures are outlined in APS 113 (Attachment F).

For income-producing real estate, the Group maps a combination of internal rating grade and LGD to the supervisory slotting categories. Each slotting category is associated with a specific risk-weight for unexpected loss that broadly corresponds to a range of external credit assessments as detailed below.

Supervisory category	Risk-weight	External rating equivalent
Strong	70%	BBB- or better
Good	90%	BB+ or BB
Satisfactory	115%	BB- or B+
Weak	250%	B to C
Default	0%	N/A

### Table 5.2C: Supervisory Slotting by Risk-weight

The following table provides the credit exposures (net of eligible financial collateral) for specialised lending products subject to supervisory slotting by risk-weight.

Unexpected loss risk-weights	As at	
	30 Sep 18	31 Mar 18
	Total exposure \$m	Total exposure <sup>(1)</sup> \$m
70%	23,681	25,477
90%	32,924	32,393
115%	10,123	9,167
250%	871	776
Default	441	469
<b>Total specialised lending exposure subject to supervisory slotting</b>	<b>68,040</b>	<b>68,282</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

## 5.3 Internal Ratings Based Portfolios

### General Disclosure on the Internal Ratings Based System (IRB)

The Group has been accredited by APRA and RBNZ to use its internal credit models and processes in determining RWA for its retail and non-retail credit portfolios across its Australian and New Zealand banking operations.

The Group's internal ratings system measures credit risk using PD, EaD and LGD. Distinct PD, EaD and LGD models exist for the retail and non-retail credit portfolios, based on asset classes and customer segments.

Non-retail customers are assessed individually using a combination of expert judgement and statistical risk rating tools. For retail customers, operational scorecards are the primary method of risk rating. Rating approaches for each asset class are summarised in the table below.

Exposure type	Description	Rating approach
<b>Non-retail</b>		
<b>Corporate (including SME)</b>	Companies, including investment banks and non-government entities.	Statistical risk model, external credit rating and expert judgement
<b>Sovereign</b>	Sovereign and Australian dollar claims on the Reserve Bank of Australia. Sovereign includes government guaranteed exposures.	Statistical risk model, external credit rating and expert judgement
<b>Bank</b>	ADIs and overseas banks.	Statistical risk model, external credit rating and expert judgement
<b>Specialised lending</b>	Exposures associated with the financing of individual projects where the repayment is highly dependent on the performance of the underlying pool or collateral, rather than the obligor's creditworthiness. Includes project finance, income-producing real estate, object finance and commodities finance.	Statistical risk model, expert judgement, supervisory slotting
<b>Retail</b>		
<b>Residential mortgage</b>	Exposures partly or fully secured by residential properties.	Statistical risk model
<b>Qualifying revolving retail</b>	Consumer credit cards excluding BNZ credit cards (which are classified as other retail under RBNZ rules).	Statistical risk model
<b>Retail SME</b>	Small business and agriculture exposures where the total aggregated business related exposures of the obligor and its related entities are less than \$1 million.	Statistical risk model
<b>Other retail</b>	Retail exposures other than residential mortgage, qualifying revolving retail and retail SME. Includes personal loan products, overdrafts, transaction account exposures and BNZ credit cards.	Statistical risk model

### Internal Risk Rating and External Ratings

The structure of the internal risk rating system and its relationship with external ratings is outlined below.

Description	Internal rating	Probability of default (%)	S&P rating	Moody's rating
Super senior investment grade	1, 2	0<0.03	AAA, AA+, AA, AA-	Aaa, Aa1, Aa2, Aa3
Senior investment grade	3, 4, 5	0.03<0.11	A+, A, A-	A1, A2, A3
Investment grade	6, 7, 8, 9, 10, 11	0.11<0.55	BBB+, BBB, BBB-	Baa1, Baa2, Baa3
Acceptable	12, 13, 14, 15, 16, 17, 18, 19	0.55<5.01	BB+, BB, BB-, B+	Ba1, Ba2, Ba3, B1
Weak/doubtful	20, 21, 22, 23	5.01<99.99	B, B-, CCC+, CCC, CCC-	B2, B3, Caa, Ca
Default	98, 99	100	D	C

### Internal Ratings Process Overview

#### Probability of Default (PD)

PD measures the likelihood that an obligor will default within a 12 month period. The Group uses two types of PD estimates:

- Point in Time (PiT), which estimates the likelihood of default in the next 12 months taking account of the current economic conditions. PiT PDs are used for management of the portfolio and the collective provision calculation.
- Through The Cycle (TTC), which estimates the likelihood of default through a full credit cycle. TTC PDs are used for regulatory and economic capital calculation.

The Group has a common masterscale across all counterparties (non-retail and retail) for PD.

#### Loss Given Default (LGD)

LGD measures the portion of the exposure owed to the Group that would be lost in the event of the customer defaulting. LGD is calculated by using a set of estimated parameters including Loss Given Realisation (LGR), post-default path rates and the bank value of collateral.

The Group applies stresses to the model factors to obtain downturn LGD estimates using internal data, external reference data and benchmarks, and by applying expert judgement or utilises regulatory imposed floors.

### Exposure at Default (EaD)

EaD is calculated according to the facility type. The Group's EaD models predict the dollar amount that is outstanding if the obligor defaults. This amount includes principal, fees and interest owed at the time of default.

The Group applies stresses to the model factors to obtain downturn EaD estimates using internal data, benchmark studies and expert judgement.

### Use of PD, LGD and EaD

PD, LGD and EaD estimates are used for various regulatory and internal credit risk calculations, such as regulatory expected loss, RWA, economic capital and provisioning.

### Credit rating system control

In addition to monthly performance reporting, credit models are reviewed at least annually in accordance with Group Model Risk Policy. Regular independent reviews are also conducted.

The outcomes of the model validation process, including proposed actions, are presented to the authorised risk committees for review and endorsement of any actions for implementation.

### Internal Ratings Process for Non-Retail Credit

#### PD models

The Group has a number of PD models that differ by industry or segment, counterparty size and incorporate regional variances. The rating model used is dependent on:

- industry, based on ANZSIC classification
- financial information available
- qualitative information
- exposure and product.

The quantitative factors consist of financial ratios and indicators (e.g. profitability, leverage and debt service coverage). The qualitative factors are based on qualitative data using the expert judgement of the lender and credit officer (e.g. management ability and industry outlook).

While factors predictive of default have broad similarities across segments (e.g. debt service capability and management quality) and are inherently correlated, the modelling process establishes those factors that are most robustly predictive for each segment, along with their relative weightings. External benchmarking is used for certain segments that have insufficient internal data, a small population and/or low defaults. This is the case for externally rated banks and sovereigns, where external rating agency data is used. The resulting rating is updated at least annually.

#### EaD models

EaD is calculated according to the facility type. Conversion factors are used for estimating off-balance sheet exposures into an equivalent on-balance sheet amount, based on internal data.

Eligible collateral is determined in accordance with APS 112 (Attachment G).

#### LGD models

LGD for the non-retail portfolio is calculated by using a set of estimated parameters including post default path relativities, secured and unsecured loss experience as well as bank value of collateral. LGD is segmented by customer type, customer size and nature of facility.

As the market value of the collateral and unsecured recoveries is affected by credit cycle changes, the impact of a credit cycle downturn on LGD has been incorporated.

The Group also uses the following factors for non-retail credit LGD models:

- relevant external benchmarks
- secured and unsecured recovery rates
- time value of money.
- principal and interest write-offs.

Where limited internal default data exists, data is supplemented by external benchmarks, market data and expert judgement.

### Internal Ratings Process for Retail Credit

#### PD models

Retail PD models are developed using the following:

- application data including external credit bureau data
- customer and account level behavioural data (for example delinquency or limit utilisation).

Each account is scored to assign a PD. This process allows groups of accounts with similar scores to be pooled together and mapped to the PD masterscale.

Appropriate long run adjustments have been made to the models to account for performance over an economic cycle.

#### EaD models

Retail EaD models use a combination of Credit Conversion Factors (CCFs) similar to those used in non-retail, and scaling factors.

For retail products, CCFs have been developed mainly for revolving credit products, such as credit cards and overdrafts and estimate the amount of unutilised credit a customer may draw in the lead up to default.

Scaling factors have been applied mainly to term lending products, where the customer has less availability of unutilised credit from which to draw in the lead up to default.

#### LGD models

Key account variables, such as months exposure held and balance, are identified and modelled to provide an estimate of the probability that a loan that has defaulted would return to full performance (i.e. cure).

For accounts that do not cure and are written off, internal recovery data is used to assess the ultimate loss (i.e. initial loss less recoveries achieved plus costs of recovery).

Adjustments based on external data and expert judgement are made to the LGD to account for a downturn in the economic cycle, and are applied by varying the cure and recovery rates.

In Australia, the only credit risk mitigation measure applies to the residential mortgage portfolio, where Lenders Mortgage Insurance (LMI) is generally required for borrowing above 80% Loan to Value Ratio at origination. LMI does not currently influence the retail LGD metrics used. For loans secured by residential property, APRA has mandated the use of a supervisory floor of 20% for RWA purposes.

**Portfolios Subject to IRB Approach**
**Table 5.3A: Non-Retail Exposures by Risk Grade**

The following table provides a breakdown of non-retail credit exposures (net of eligible financial collateral) by PD risk grade, categorised into bands that broadly correspond to externally recognised risk grades. Moody's Investor Services risk grades have been included as a reference point. Exposures have been categorised into PD grades as assessed by the Group's own internal ratings system.

External credit rating equivalent	As at 30 Sep 18						
	PD risk grade mapping						Default 100%
	Aa3 and above 0<0.03%	A1, A2, A3 0.03<0.1%	Baa1, Baa2, Baa3 0.1<0.5%	Ba1, Ba2 0.5<2.0%	Ba3, B1 2.0<5.0%	B2 and below 5.0<99.9%	
Subject to IRB approach	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Total exposure</b>							
Corporate (including SME)	26	48,869	90,880	69,258	19,258	4,700	1,734
Sovereign	58,803	4,136	151	62	13	-	-
Bank	-	32,646	3,575	122	60	-	-
<b>Total exposure (EaD)</b>	<b>58,829</b>	<b>85,651</b>	<b>94,606</b>	<b>69,442</b>	<b>19,331</b>	<b>4,700</b>	<b>1,734</b>
<b>Undrawn commitments <sup>(1)</sup></b>							
Corporate (including SME)	26	18,868	25,936	11,865	2,189	372	73
Sovereign	239	183	13	21	7	-	-
Bank	-	857	149	26	-	-	-
<b>Total undrawn commitments</b>	<b>265</b>	<b>19,908</b>	<b>26,098</b>	<b>11,912</b>	<b>2,196</b>	<b>372</b>	<b>73</b>
<b>Subject to IRB approach</b>							
<b>Average EaD (\$m) <sup>(2)</sup></b>							
Corporate (including SME)	54.71	1.27	0.56	0.28	0.19	0.16	0.26
Sovereign	33.02	1.87	0.42	0.25	0.07	-	-
Bank	-	2.30	0.67	1.06	0.83	-	-
<b>Exposure-weighted average LGD (%)</b>							
Corporate (including SME)	59.0%	49.1%	37.3%	31.3%	30.3%	35.6%	42.3%
Sovereign	4.2%	33.4%	35.2%	45.4%	45.0%	-	-
Bank	-	53.8%	58.9%	59.6%	59.6%	-	-
<b>Exposure-weighted average risk-weight (%)</b>							
Corporate (including SME)	25.3%	26.4%	42.4%	58.5%	74.1%	136.9%	232.1%
Sovereign	1.0%	13.5%	40.5%	82.5%	109.0%	-	-
Bank	-	22.8%	65.8%	108.7%	172.2%	-	-

<sup>(1)</sup> Undrawn commitments are included in total exposure shown above.

<sup>(2)</sup> Simple average of exposure by number of arrangements.

External credit rating equivalent	As at 31 Mar 18						
	PD risk grade mapping						Default 100%
	Aa3 and above 0<0.03%	A1, A2, A3 0.03<0.1%	Baa1, Baa2, Baa3 0.1<0.5%	Ba1, Ba2 0.5<2.0%	Ba3, B1 2.0<5.0%	B2 and below 5.0<99.9%	
Subject to IRB approach	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Total exposure <sup>(1)</sup></b>							
Corporate (including SME)	-	41,852	88,123	69,140	19,672	4,418	1,835
Sovereign	64,617	4,326	226	71	8	-	-
Bank	-	34,024	3,521	90	14	1	-
<b>Total exposure (EaD)</b>	<b>64,617</b>	<b>80,202</b>	<b>91,870</b>	<b>69,301</b>	<b>19,694</b>	<b>4,419</b>	<b>1,835</b>
<b>Undrawn commitments <sup>(1)</sup></b>							
Corporate (including SME)	-	16,888	26,026	12,055	2,353	387	111
Sovereign	256	187	12	24	4	-	-
Bank	-	950	327	-	-	-	-
<b>Total undrawn commitments</b>	<b>256</b>	<b>18,025</b>	<b>26,365</b>	<b>12,079</b>	<b>2,357</b>	<b>387</b>	<b>111</b>
<b>Subject to IRB approach</b>							
<b>Average EaD (\$m)</b>							
Corporate (including SME)	-	1.15	0.54	0.29	0.19	0.15	0.27
Sovereign	38.04	1.93	0.64	0.28	0.04	-	-
Bank	-	2.20	0.64	0.77	0.27	0.06	0.02
<b>Exposure-weighted average LGD (%)</b>							
Corporate (including SME)	-	48.2%	38.8%	31.8%	31.2%	34.4%	43.1%
Sovereign	4.1%	33.8%	24.2%	46.9%	45.0%	-	-
Bank	-	54.5%	58.9%	59.6%	59.6%	59.6%	-
<b>Exposure-weighted average risk-weight (%)</b>							
Corporate (including SME)	-	25.6%	44.4%	59.1%	76.8%	131.3%	210.9%
Sovereign	0.9%	13.1%	29.8%	90.8%	109.9%	-	-
Bank	-	23.7%	73.1%	104.7%	175.8%	220.8%	-

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

**Table 5.3B: Retail Exposures by Risk Grade**

The following table provides a breakdown of the retail credit exposures (net of eligible financial collateral) by PD risk grade, categorised into bands that broadly correspond to externally recognised risk grades, ranging from super senior investment grade to defaulted exposures.

	As at 30 Sep 18					
	PD risk grade mapping					
Subject to IRB approach	0<0.1%	0.1<0.5%	0.5<2.0%	2.0<5.0%	5.0<99.9%	100%
	\$m	\$m	\$m	\$m	\$m	\$m
<b>Total exposure</b>						
Residential mortgage	82,393	159,096	112,439	17,333	10,618	2,853
Qualifying revolving retail	2,590	3,598	2,628	1,647	816	60
Retail SME	1,531	5,406	6,708	2,915	1,018	356
Other retail	869	629	1,162	1,064	546	66
<b>Total exposure (EaD)</b>	<b>87,383</b>	<b>168,729</b>	<b>122,937</b>	<b>22,959</b>	<b>12,998</b>	<b>3,335</b>
<b>Undrawn commitments <sup>(1)</sup></b>						
Residential mortgage	30,162	13,894	5,249	456	70	20
Qualifying revolving retail	2,282	2,380	787	193	70	3
Retail SME	855	1,515	953	360	76	22
Other retail	584	264	224	80	23	0
<b>Total undrawn commitments</b>	<b>33,883</b>	<b>18,053</b>	<b>7,213</b>	<b>1,089</b>	<b>239</b>	<b>45</b>
<b>Subject to IRB approach</b>						
<b>Average EaD (\$m) <sup>(2)</sup></b>						
Residential mortgage	0.07	0.27	0.22	0.28	0.33	0.23
Qualifying revolving retail	0.01	0.01	0.01	0.01	0.01	0.01
Retail SME	0.02	0.03	0.03	0.03	0.01	0.02
Other retail	small	small	0.01	0.01	small	small
<b>Exposure-weighted average LGD (%)</b>						
Residential mortgage	20.0%	20.0%	20.1%	19.9%	20.0%	20.1%
Qualifying revolving retail	73.4%	74.5%	76.6%	77.7%	77.3%	76.3%
Retail SME	24.1%	25.2%	28.1%	29.4%	30.3%	34.8%
Other retail	83.8%	80.6%	76.1%	73.7%	71.4%	69.4%
<b>Exposure-weighted average risk-weight (%)</b>						
Residential mortgage	5.8%	17.1%	34.8%	77.2%	122.6%	223.0%
Qualifying revolving retail	3.4%	10.2%	33.7%	72.7%	167.2%	157.8%
Retail SME	5.9%	14.5%	33.5%	54.1%	91.0%	254.5%
Other retail	13.8%	43.4%	85.8%	108.8%	137.8%	181.1%

<sup>(1)</sup> Undrawn commitments are included in total exposures shown above.

<sup>(2)</sup> Simple average of exposure by number of arrangements.



	As at 31 Mar 18					
	PD risk grade mapping					
Subject to IRB approach	0<0.1%	0.1<0.5%	0.5<2.0%	2.0<5.0%	5.0<99.9%	100%
	\$m	\$m	\$m	\$m	\$m	\$m
<b>Total exposure <sup>(1)</sup></b>						
Residential mortgage	83,842	152,925	109,508	17,713	11,235	2,695
Qualifying revolving retail	2,549	3,691	2,753	1,715	841	68
Retail SME	1,646	5,394	6,433	2,824	1,033	355
Other retail	898	655	1,209	1,077	569	69
<b>Total exposure (EaD)</b>	<b>88,935</b>	<b>162,665</b>	<b>119,903</b>	<b>23,329</b>	<b>13,678</b>	<b>3,187</b>
<b>Undrawn commitments <sup>(1)</sup></b>						
Residential mortgage	29,969	13,624	4,873	550	82	24
Qualifying revolving retail	2,238	2,415	818	197	63	3
Retail SME	918	1,510	922	330	89	46
Other retail	601	278	226	79	22	-
<b>Total undrawn commitments</b>	<b>33,726</b>	<b>17,827</b>	<b>6,839</b>	<b>1,156</b>	<b>256</b>	<b>73</b>
<b>Subject to IRB approach</b>						
<b>Average EaD (\$m)</b>						
Residential mortgage	0.07	0.27	0.23	0.28	0.33	0.22
Qualifying revolving retail	0.01	0.01	0.01	0.01	0.01	0.01
Retail SME	0.02	0.03	0.03	0.02	0.01	0.01
Other retail	small	small	0.01	0.01	small	small
<b>Exposure-weighted average LGD (%)</b>						
Residential mortgage	20.0%	20.0%	20.1%	19.9%	20.0%	20.1%
Qualifying revolving retail	73.4%	74.5%	76.6%	77.7%	77.4%	76.4%
Retail SME	24.3%	25.3%	28.2%	29.5%	30.8%	36.1%
Other retail	83.8%	80.8%	76.1%	73.7%	70.9%	70.1%
<b>Exposure-weighted average risk-weight (%)</b>						
Residential mortgage	5.8%	17.0%	34.9%	77.0%	122.4%	220.6%
Qualifying revolving retail	3.4%	10.2%	33.5%	73.0%	166.4%	128.1%
Retail SME	6.0%	14.5%	33.6%	55.1%	93.7%	283.9%
Other retail	13.8%	43.5%	85.7%	108.9%	137.9%	167.3%

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

## 5.4 Credit Risk Mitigation

The Group employs a range of techniques to reduce risk in its credit portfolio. Credit risk mitigation commences with an objective credit evaluation of the counterparty. This includes an assessment of the counterparty's character, industry, business model and capacity to meet its commitments without distress. Other methods to mitigate credit risk include a prudent approach to facility structure, collateral, lending covenants and terms and conditions.

### Collateral Management

Collateral provides a secondary source of repayment for funds being advanced, in the event that counterparty cannot meet its contractual repayment obligations.

Collateral commonly includes:

- fixed and floating charges over business assets
- residential, commercial and rural property
- cash deposits
- fixed income products
- listed shares, bonds or securities
- guarantees, letters of credit and pledges.

To ensure that collateral held is sufficiently liquid, legally valid, enforceable and regularly valued, credit risk policy provides a framework to:

- establish the amount and quality of collateral required to support an exposure
- determine acceptable valuation type and revaluation requirements for each collateral class
- record market value and bank value (i.e. a conservative assessment of value in the event the collateral is realised).

Guarantees from financially sound parties are sometimes required to support funds advanced to a counterparty. This can reduce the risk of default on their obligations. Where allowed in credit risk policy, guarantors that are risk rated may enhance the counterparty customer rating.

### Credit Hedging

Credit hedging is utilised in the banking book to avoid counterparty concentrations against protection sellers and achieve portfolio diversification.

Credit risk to individual hedge counterparties is mitigated through careful selection of investment grade equivalent counterparties and use of collateral agreements to manage net exposures.

### Credit Exposure Netting

Credit exposure netting may be adopted to calculate counterparty credit exposures on a net basis. This recognises that the change in value for different products over time is not perfectly correlated. Transactions with positive value when netted may offset those with negative value.

Credit exposure netting is subject to execution of supporting legal documentation. A credit exposure measurement and reporting system manages the netting pools in accordance with that documentation.

### Portfolio Management

Credit Risk, together with division risk functions, manage the overall risk of the corporate, sovereign and bank credit portfolios. Where credit risks are identified, a variety of techniques are used to mitigate the risk, including credit derivatives and, on occasion, the sale of loan assets (in consultation with the counterparties).

Internal reporting systems are utilised to record all:

- approved derivative, money market, credit line and/or credit trading facility limits
- credit exposure arising from securities sales and purchases, money market lines, commodities, trade, derivative and foreign exchange transactions
- country risk exposures for country economic capital limit purposes.

Limits may be established at a facility, product group or individual product level. A specialist administration unit operating independently from relationship managers, dealers and credit approvers record and maintain the limits.

Table 5.4A: Mitigation by Eligible Financial Collateral

The following table provides details of eligible financial collateral applied in determining the credit risk exposures. Eligible financial collateral, when used to reduce levels of exposure, refers to cash and cash equivalents as defined in APS 112. Exposures covered by eligible financial collateral are measured after the application of regulatory haircuts.

Exposure type	As at 30 Sep 18	
	Total exposure	Eligible financial collateral applied
	\$m	\$m
<b>Subject to IRB approach</b>		
Corporate (including SME)	234,725	61,494
Sovereign	63,165	12,321
Bank	36,403	21,184
Residential mortgage	384,732	-
Qualifying revolving retail	11,339	-
Retail SME	17,934	4
Other retail	4,336	2
<b>Total IRB approach</b>	<b>752,634</b>	<b>95,005</b>
<b>Specialised lending</b>	<b>68,040</b>	<b>593</b>
<b>Subject to standardised approach</b>		
Residential mortgage	2,139	2
Corporate	13,260	51,859
Other	1,134	12
<b>Total standardised approach</b>	<b>16,533</b>	<b>51,873</b>

Exposure type	As at 31 Mar 18	
	Total exposure <sup>(1)</sup>	Eligible financial collateral applied
	\$m	\$m
<b>Subject to IRB approach</b>		
Corporate (including SME)	225,040	70,358
Sovereign	69,248	12,765
Bank	37,650	23,328
Residential mortgage	377,918	-
Qualifying revolving retail	11,617	-
Retail SME	17,685	4
Other retail	4,477	2
<b>Total IRB approach</b>	<b>743,635</b>	<b>106,457</b>
<b>Specialised lending</b>	<b>68,282</b>	<b>605</b>
<b>Subject to standardised approach</b>		
Residential mortgage	2,258	2
Corporate	11,986	47,368
Other	1,116	29
<b>Total standardised approach</b>	<b>15,360</b>	<b>47,399</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

**Table 5.4B: Mitigation by Guarantees and Credit Derivatives**

The following table provides details of guarantees and credit derivatives relating to each portfolio. Credit risk exposure is shown net of eligible financial collateral.

Exposure type	As at 30 Sep 18		
	Total exposure	Covered by guarantees	Covered by credit derivatives
	\$m	\$m	\$m
<b>Subject to IRB approach</b>			
Corporate (including SME)	234,725	24,812	177
Sovereign	63,165	-	-
Bank	36,403	136	-
Residential mortgage	384,732	-	-
Qualifying revolving retail	11,339	-	-
Retail SME	17,934	-	-
Other retail	4,336	-	-
<b>Total IRB approach</b>	<b>752,634</b>	<b>24,948</b>	<b>177</b>
<b>Specialised lending</b>	<b>68,040</b>	<b>-</b>	<b>-</b>
<b>Subject to standardised approach</b>			
Residential mortgage	2,139	-	-
Corporate	13,260	-	-
Other	1,134	-	-
<b>Total standardised approach</b>	<b>16,533</b>	<b>-</b>	<b>177</b>

Exposure type	As at 31 Mar 18		
	Total exposure <sup>(1)</sup>	Covered by guarantees	Covered by credit derivatives
	\$m	\$m	\$m
<b>Subject to IRB approach</b>			
Corporate (including SME)	225,040	24,141	-
Sovereign	69,248	1	-
Bank	37,650	101	-
Residential mortgage	377,918	-	-
Qualifying revolving retail	11,617	-	-
Retail SME	17,685	-	-
Other retail	4,477	-	-
<b>Total IRB approach</b>	<b>743,635</b>	<b>24,243</b>	<b>-</b>
<b>Specialised lending</b>	<b>68,282</b>	<b>-</b>	<b>-</b>
<b>Subject to standardised approach</b>			
Residential mortgage	2,258	-	-
Corporate	11,986	-	-
Other	1,116	-	-
<b>Total standardised approach</b>	<b>15,360</b>	<b>-</b>	<b>-</b>

<sup>(1)</sup> For consistency in presentation, credit risk exposure as at 31 March 2018 has been restated from that disclosed previously to be presented net of eligible financial collateral.

## 5.5 Counterparty Credit Risk

This section describes the Group's approach to managing credit risk relating to market-related instruments. Counterparty Credit Risk (CCR) is the risk that a counterparty to a transaction may default before the final settlement of the transaction's cash flows. An economic loss would occur if a transaction with a defaulting counterparty has a positive economic value to the Group.

### Credit Limits

Credit limits for derivatives are approved and assigned by an appropriately authorised DCA based on the same principles (i.e. amount, tenor, PD, LGD and product type), and internal credit policies used for approving bank loans.

Credit exposures for each transaction are measured as the current mark-to-market value and the potential future credit exposure which is an estimate of the future replacement cost.

Credit risk economic capital is then allocated to individual counterparty exposures based on their relative risk contribution to unexpected loss.

Limit excesses, whether they are active or passive, are subject to formal approval by a DCA.

### Collateral

Counterparty credit exposures may be collateralised by an approved list of eligible collateral via market standard master agreements (ISDA and credit support annex). Eligible collateral may be subject to haircuts depending on asset type. Counterparties may also be subject to posting additional collateral before transacting.

### Wrong Way Risk

Wrong way risk occurs when exposure to a counterparty is adversely correlated with the credit quality of that counterparty. Credit exposures and potential losses may increase under these circumstances as a result of market conditions. The Group manages these risks through the effective implementation of risk policies.

### Downgrade Impact

As at 30 September 2018, the Group would need to post an estimated amount of \$13 million of collateral in the event of a one notch downgrade to the Group's credit rating, and \$54 million in the event of a two notch downgrade.

**Table 5.5A (i): Net Derivatives Credit Exposure**

The following table provides the gross positive fair value of derivative contracts, netting benefits, netted current credit exposure and collateral held. Net derivatives credit exposure represents net EaD, or exposure amount, under the current exposure method.

	As at	
	30 Sep 18	31 Mar 18
	\$m	\$m
Gross positive fair value of derivative contracts	51,778	55,197
Netting benefits	(37,721)	(39,028)
<b>Netted current credit exposure (NCCE)</b>	<b>14,057</b>	<b>16,169</b>
Potential future credit exposure	19,522	19,005
Collateral held:		
Cash	(5,602)	(7,026)
Government securities <sup>(1)</sup>	(508)	(376)
Other	-	-
<b>Net derivatives credit exposure</b>	<b>27,469</b>	<b>27,772</b>

<sup>(1)</sup> The 31 March 2018 non-cash collateral held has been restated from other to government securities.

**Table 5.5A (ii): Distribution of Current Credit Exposure**

The following table provides details of the net derivative credit exposure by type of derivative.

Exposure type	As at	
	30 Sep 18	31 Mar 18
	Exposure at default	Exposure at default
	\$m	\$m
Interest rate contracts	6,813	7,122
Foreign exchange and gold contracts	15,925	16,560
Equity contracts	126	170
Other commodity contracts (other than precious metals)	306	288
Other market related contracts	115	154
Central counterparty <sup>(1)</sup>	4,184	3,478
<b>Total</b>	<b>27,469</b>	<b>27,772</b>

<sup>(1)</sup> Derivative contracts with qualifying central clearing counterparties have not been broken down by type of derivative.

**Table 5.5B: Credit Derivative Transactions**

The following table provides the notional of credit derivative transactions that create exposures to CCR (notional value), segregated between use for the ADI's own credit portfolio, as well as in its intermediation activities (including the distribution of the credit derivatives products used). This is broken down further by protection bought and sold within each product group.

	As at 30 Sep 18			As at 31 Mar 18		
	Protection bought notional	Protection sold notional	Total notional	Protection bought notional	Protection sold notional	Total notional
	\$m	\$m	\$m	\$m	\$m	\$m
<b>Credit derivatives products used for own credit portfolio</b>						
Credit default swaps	69	-	69	96	-	96
<b>Credit derivatives products used for intermediation</b>						
Credit default swaps	5,153	2,757	7,910	6,372	4,178	10,550
Total return swaps	120	-	120	140	-	140
<b>Total credit derivative notional value</b>	<b>5,342</b>	<b>2,757</b>	<b>8,099</b>	<b>6,608</b>	<b>4,178</b>	<b>10,786</b>

## Section 6

## Securitisation

## Introduction

Securitisation is a structure where the cash flows from a pool of assets are used to service obligations to at least two different tranches or classes of creditors (typically holders of debt securities), with each class or tranche reflecting a different degree of credit risk (i.e. one class of creditors is entitled to receive payments from the pool before another class of creditors).

Securitisations may be categorised as either:

- traditional securitisation - a securitisation where the pool is transferred (or assigned) to, and held by, or otherwise held directly in the name of, a special purpose vehicle (SPV), or
- synthetic securitisation - a securitisation whereby the credit risk, or part of the credit risk, of a pool is transferred to a third party which need not be an SPV. The transfer of credit risk can be undertaken through the use of funded (e.g. credit linked notes) or unfunded (e.g. credit default swaps) credit derivatives or guarantees.

## Objectives

The Group engages in securitisation activities in relation to third parties, as well as its own assets.

**Third party securitisation** activities include arranging securitisation transactions and providing facilities and funding to securitisation SPVs. It also includes investing in securities issued by third-party securitisations through primary and secondary market transactions. These activities support client and portfolio management objectives, and generate fee and interest income.

**Own asset securitisation** activities may be used for funding, capital and liquidity management purposes. This involves the sale of assets originated by the Group to an SPV, which then issues notes to third party investors. Where significant credit risk transfer is achieved, regulatory capital relief may be achieved. Facilities such as liquidity facilities and interest rate swaps may be provided to the SPV on an arm's length basis.

The Group also holds internal securitisation pools of residential mortgage-backed securities (RMBS). These securities have been developed as a source of contingent liquidity to support the Group's liquid asset holdings outlined in Section 9.1 *Funding and Liquidity Risk*.

## Roles

The major roles undertaken by the Group in respect of securitisation are set out in the table below.

Securitisation activity	Role
<b>Third party</b>	Arranger, Dealer, Joint Lead Manager, Cross Currency Swap Provider, Interest Rate Swap Provider, Liquidity Facility Provider, Funding Provider, Investor
<b>Own asset</b>	Originator, Seller, Arranger, Lead Manager, Manager, Trust Administrator, Servicer, Cross Currency Swap Provider, Interest Rate Swap Provider, Liquidity Facility Provider

Third party securitisation activity is undertaken by Corporate and Institutional Banking, while own asset activity is conducted by Group Treasury.

## Risk Management

Risks arising from securitisation activities include credit risk, market risk, balance sheet and liquidity risk and operational risk. These risks are managed in accordance with the Group's risk management policies and frameworks described in Section 3 *Risk Governance and Management* and the sections in this report on these material risks.

Credit risk arising from securitisation exposures is managed in line with the framework and policies outlined in Section 5.1 *Credit Risk General Disclosures*. All securitisation exposures are subject to initial credit assessment and annual review. Analysis of matters such as portfolio composition, type and level of credit enhancement, and specific structural features of the transaction are included. Future cash flows are modelled and risk factors applied as appropriate. Exposures are monitored against limits relating to overall portfolio size and other attributes such as underlying asset class and geographical split.

Balance sheet and liquidity risk includes various structural, non-traded market risks which arise from exposures held in the banking book. Securitisation exposures held in available-for-sale portfolios are subject to VaR limits in respect of interest rate and foreign exchange, which are set in accordance with approved risk appetite and monitored daily. An independent validation process is conducted monthly to evaluate the holding values of portfolio exposures. Contingent liquidity and potential collateral outflows are monitored against approved limits on a monthly basis.

In conjunction with the policies and frameworks described above, third party securitisation activity is governed by the Third Party Securitisation Risk Policy. Compliance with this policy and the prudential requirements of APS 120 is monitored by a functionally independent risk oversight team.

All securitisation exposures have specific identifiers and are recorded on appropriate finance and risk systems. Underlying pool exposure data is obtained monthly from both internal and external providers. This provides updated information on transaction performance and provides inputs into the regulatory capital calculation. Reporting, exposure monitoring and portfolio insights are prepared on a regular basis (typically monthly) which feed into the relevant risk committees.

The Group has no exposures which are classified as resecuritisation exposures and does not actively target these types of exposures for investment.

### Regulatory Capital and Compliance

The Group's management of the risks associated with securitisation and calculation of capital held against these exposures is governed by APS 120. The Group has policies and procedures in place to ensure compliance with the requirements of this prudential standard, which include:

- having a risk management framework in place for securitisation activities
- ensuring disclosure of the nature of obligations arising from securitisations
- not providing implicit support to securitisation vehicles, and
- calculating regulatory capital for credit risk from securitisation exposures.

In line with APS 120, an assessment demonstrating compliance with the prudential standard is prepared for all securitisation transactions.

The Group complies with the methods prescribed by APS 120 for calculating regulatory capital, namely the external Ratings-Based Approach (RBA) and the Supervisory Formula Approach (SFA). Under the RBA, risk-weights are matched to external ratings provided by External Credit Assessment Institutions (ECAIs), varying according to tranche seniority and maturity. For unrated transactions, the SFA adjusts risk-weights according to the structural characteristics of the transaction, as well as the nature and performance of the underlying exposures. In the event the exposure does not meet either of these two methods, it is deducted from CET1 capital.

Where the use of ECAIs is relevant, the Group applies the ratings provided by Standard & Poor's, Moody's Investor Services and/or Fitch Ratings. These ratings are updated at minimum on a monthly basis and are fed into the regulatory capital calculation.

Securitisation exposures held in the trading book are subject to APS 116 *Capital Adequacy: Market Risk*. The Internal Assessment Approach (IAA) is no longer permitted under APS 120, effective 1 January 2018.

### Accounting Policies

**Third party securitisation** - Cash flows on exposures such as debt securities issued by securitisation SPVs are contractually linked to the payments received on an underlying pool of assets within the SPV. The pool of assets is funded by tranches issued by the SPV based on a contractual cash waterfall repayment arrangement.

To measure the exposure at amortised cost, the tranche must give rise to cash flows that are solely payments of principal and interest (SPPI). The underlying pool of assets in the SPV must also contain one or more assets that have contractual cash flows that comprise SPPI. In addition, the exposure to credit risk in the tranche should be equal to or lower than the exposure to credit risk in the underlying pool of assets.

If the exposure meets the criteria above then it will be measured at amortised cost, with interest income recognised in the income statement using the effective interest method. Fees received which are directly attributable to the origination of the financial instrument are recognised as part of the effective interest method, otherwise the fees are recognised on an accruals basis.

Warehouse facilities provided to third party SPVs are accounted for at amortised cost, net of any provision for credit impairment, provided they meet the contractually linked guidance above.

Where debt securities are held to collect contractual cash flows and to sell where an opportunity arises, these exposures are measured at fair value with movements in fair value recognised in other comprehensive income.

Derivatives such as interest rate swaps, basis swaps or cross currency swaps with third party SPVs are measured at fair value with fair value movements recognised in profit or loss.

**Own asset securitisation** - The accounting treatment for each transaction in the Group's own asset securitisation program is assessed against the requirements of the applicable accounting standards, particularly AASB 9 and AASB 10 *Consolidated Financial Statements*. Where the Group does not transfer substantially all risks and rewards associated with ownership of the



pool of assets, these loans are not be derecognised for accounting purposes. The Group will consolidate an SPV where the Group has the ability to use its power over the SPV to affect the returns it earns from that SPV.

A funding liability measured at amortised cost is recognised in respect of the notes issued to third party investors.

Further information on the Group's accounting policies that are relevant to securitisation can be found in the 2018 Annual Financial Report in the Financial Instruments Overview section, Note 21 *Financial Asset Transfers* and Note 31 *Interest in Subsidiaries and Other Entities*.

The Group had no trading book exposures subject to APS 120 or exposures deducted from capital at 30 September 2018 (March 2018: nil).

The Group had no exposures subject to early amortisation in either banking or trading book at 30 September 2018 (March 2018: nil).

### Table 6.1A: Exposures Securitised

The table below shows banking book exposures securitised by the Group and third party securitised assets where the Group is classified as a sponsor. The Group originated exposures can be broken down as follows:

- capital relief – significant risk transfer of the underlying exposure is achieved for regulatory purposes
- funding only – significant risk transfer is not achieved, and
- internal RMBS – residential mortgage-backed securities are issued and held internally for contingent liquidity purposes (also known as self-securitisation).

Underlying asset	As at 30 Sep 18			
	Group originated capital relief	Group originated funding only	Group originated internal RMBS <sup>(1)</sup>	Third party originated assets
	\$m	\$m	\$m	\$m
Residential mortgage	1,690	2,332	69,750	-

<sup>(1)</sup> Includes internal securitisation pools of RMBS that have been developed as a source of contingent liquidity to support the Group's liquid asset holdings. The amount of these securitised assets is \$60,350 million (March 2018: \$65,787 million).

Underlying asset	As at 31 Mar 18			
	Group originated capital relief	Group originated funding only	Group originated internal RMBS	Third party originated assets
	\$m	\$m	\$m	\$m
Residential mortgage	1,926	2,638	75,621	-

The Group did not securitise any exposures either in the trading book or synthetically in the period.

### Table 6.1B: Past Due and Impaired Banking Book Exposures Securitised

This table shows past due and impaired assets that have been originated and securitised by the Group in the banking book and any losses that have been recognised on these securitised exposures.

Underlying asset	As at 30 Sep 18			
	Outstanding exposure	Impaired facilities	Past due facilities ≥90 days	Losses recognised
	\$m	\$m	\$m	\$m
Residential mortgage	73,772	56	452	-

Underlying asset	As at 31 Mar 18			
	Outstanding exposure	Impaired facilities <sup>(1)</sup>	Past due facilities ≥90 days <sup>(1)</sup>	Losses recognised
	\$m	\$m	\$m	\$m
Residential mortgage	80,185	43	455	-

<sup>(1)</sup> The 31 March 2018 impaired and 90 days past due amounts has been restated from those disclosed previously (\$454 million and \$377 million respectively) to align with the definition of impaired and past due facilities in APS 220.

**Table 6.1C: Recent Securitisation Activity by the Group**

This table shows the amount of assets sold by the Group to securitisation SPVs and any gain or loss on sale.

There was no such activity in the six months ended 30 September 2018.

Underlying asset	6 months ended 31 Mar 18			Recognised gain or loss on sale
	Group originated capital relief	Group originated funding only	Group originated internal RMBS	
	\$m	\$m	\$m	
Residential mortgage	2,000	-	6,575	-

At 30 September 2018 the Group did not have any outstanding banking or trading book exposures that are intended to be securitised (March 2018: nil).

**Table 6.1D: Securitisation Exposures Retained or Purchased**

The following table provides third party securitisation exposures and facilities held in the banking book, broken down between on and off-balance sheet exposures.

Securitisation exposure type	As at 30 Sep 18			As at 31 Mar 18		
	On-balance sheet	Off-balance sheet	Total	On-balance sheet	Off-balance sheet	Total
	\$m	\$m	\$m	\$m	\$m	\$m
Liquidity facilities	43	2,210	2,253	58	1,745	1,803
Warehouse facilities	8,036	3,627	11,663	6,382	2,907	9,289
Credit enhancements	-	-	-	141	230	371
Securities	9,433	-	9,433	9,362	-	9,362
Derivatives	26	25	51	34	-	34
<b>Total</b>	<b>17,538</b>	<b>5,862</b>	<b>23,400</b>	<b>15,977</b>	<b>4,882</b>	<b>20,859</b>

There were \$265 million of derivatives exposures held in the trading book subject to IMA (default risk) under APS 116 as at 30 September 2018 (March 2018: \$168 million).

**Table 6.1E: Exposures by Risk-weight**

The following table provides banking book third party securitisation exposures and associated RWA, by risk-weight bands.

Risk-weight bands	As at 30 Sep 18		As at 31 Mar 18	
	Exposure \$m	RWA \$m	Exposure \$m	RWA \$m
15% ≤ 25%	22,212	3,947	19,534	3,505
> 25% ≤ 35%	390	104	271	71
> 35% ≤ 50%	422	155	592	243
> 50% ≤ 75%	298	180	287	169
> 75% ≤ 100%	21	19	95	92
> 100% ≤ 650%	38	72	46	122
> 650% ≤ 850%	9	69	8	59
> 850% < 1250%	5	52	5	52
Deductions from CET1 capital <sup>(1)</sup>	5	-	21	-
<b>Total</b>	<b>23,400</b>	<b>4,598</b>	<b>20,859</b>	<b>4,313</b>

<sup>(1)</sup> Deductions relate to subordinated exposure to residential mortgages of \$3 million and trade receivables of \$2 million at 30 September 2018 (March 2018: \$19 million and \$2 million respectively).

## Section 7

## Market Risk

## Introduction

The Group makes a distinction between traded and non-traded market risks for the purpose of managing market risk. This section relates to traded market risk. Non-traded market risk is discussed in Section 9 *Balance Sheet and Liquidity Risk*.

The Group undertakes trading activities to support its clients and to profit in the short term from differences in markets, such as interest rates, foreign exchange rates, commodity prices, equity prices and credit spreads. Traded market risk is the potential for losses or gains to arise from trading activities undertaken by the Group as a result of the movement of market prices.

The Group's exposure to market risk arises out of its trading activities which are principally carried out by Corporate and Institutional Banking Markets and BNZ. This exposure is quantified for regulatory capital purposes using both the APRA approved internal model approach (IMA) and the standard method, details of which are provided below. Other divisions do not conduct trading book activities.

## Management and Governance

The Group's risk appetite in relation to market risk is determined by the Board and is expressed in the Group Risk Appetite Statement, and governed by the Group Traded Market Risk Policy.

The Wholesale Risk Setting Statement and the comprehensive market risk setting framework complements the Group Risk Appetite Statement by providing further depth on the allocation of risk appetite to asset classes, regions and trading desks as well as detailing permitted products and markets.

The overall framework of Group Traded Market Risk Policy and the Risk Appetite Statement provide direction for the monitoring, oversight, escalation and governance of traded market risk including delegated authorities, risk measurement, and reporting and control standards. These policies are consistent with the prudential regulatory requirements.

The market risk profile of the Group is overseen by the Board via the Board Risk Committee, and by senior executive management via the Group Risk Return Management Committee, Group Credit and Market Risk Committee, Group Model Risk Committee, Wholesale Risk Management Committee and Corporate and Institutional Banking Markets Risk Council. These various committees and councils manage market risk with the following responsibilities:

- Designing and implementing policies and procedures to ensure market risk is managed within the appetite set by the Board
- Reviewing market risks for consistency with approved market risk settings and the Group's Risk Appetite
- Overseeing the effectiveness and appropriateness of the Risk Management Framework
- Reviewing and approving models
- Escalating market risk issues to the higher committees as necessary.

Group Market Risk is independent and separate from areas in the Group that carry out trading activities, and has responsibility for the daily measurement and monitoring of market risk exposures. Group Market Risk has the following key controls in place for effective internal management as well as compliance with prudential requirements:

- Trading authorities and responsibilities are defined and monitored at all levels
- A comprehensive and controlled framework of risk reporting and limit breach management
- New product approval process and usage authority permitting desks to transact a particular product
- Daily end of day and intra-day risk oversight as well as periodic desk review
- Backtesting of VaR results under internal models for capital adequacy
- Segregation of duties in the origination, processing, and valuation of transactions operated under clear and independent reporting lines
- Regular and effective reporting of market risk to executive management and the Board
- Periodic review and update of compliance with internal and regulatory policies
- Independent and periodic internal audit review of compliance with policies, procedures, process and limits.

Key methodologies for compliance with prudential requirements for positions held in the trading book are:

- Models that are used to determine risk and financial profit and loss for the Group are independently validated with the review outcome documented and reported to the relevant committees on a regular basis
- All trades are fairly valued daily using independently sourced and validated rates in accordance with Finance Rates and Revaluation Policy
- Use of Model Reserve Framework and Fair Value Adjustments to support compliance with prudential validations.

## Measurement

Value at Risk (VaR) estimates the likelihood that a given portfolio's losses will exceed a certain amount. The Group uses VaR estimates for both regulatory capital calculations in accordance with APS 116 and for internal risk control purposes.

The Group is accredited by APRA to use a historical simulation model to simulate the daily change in market factors. VaR is calculated for all trades on an individual basis using a full revaluation approach. For capital purposes, VaR for products modelled using the IMA is calculated in Australian dollars on a globally diversified basis in accordance with the following parameters:

- confidence level - 99% one tail
- holding period - 10 days (1 day VaR scaled by square root of time)
- observation period - 550 days (unweighted, updated daily).

VaR limits are assigned to individual trading desks and regions or product lines in accordance with the Market Risk Appetite Statement.

Group Market Risk monitors positions daily against the relevant limits and escalates any breaches in accordance with Market Risk standards and procedures. Additionally, Group Market Risk performs backtesting analysis to assess the validity of the VaR numbers when compared to the actual and hypothetical trading outcomes and to escalate any anomalies that may arise. Results of the backtesting are overseen by relevant risk councils and committees.

Stressed VaR is calculated using the same methodology as VaR but with an observation period based on a one-year period of significant market volatility.

Stress testing is carried out daily to test the profit and loss implications of extreme but plausible scenarios, and also to reveal hidden sensitivities in the portfolio that only become transparent when modelling extreme market moves.

'Stop loss limits' represent trigger points at which an overnight or accumulated loss incurred by a trading desk would lead to escalation in accordance with agreed procedures.

Sensitivity and other market risk limits are set by Group Market Risk to manage market risk at a more granular level, for example to manage concentration risk. These limits are monitored by Corporate and Institutional Banking Markets and independently by Group Market Risk.

Corporate and Institutional Banking Markets are responsible for managing risk, in order to deliver profits, while ensuring compliance with all limits and policies.

## Capital Methodology

As detailed in the following table, the Group is accredited by APRA to use the IMA under APS 116 for all trading asset classes except for specific interest rate risk, equities, inflation, and some foreign exchange risk from banking book portfolios. These asset classes are managed with regulatory capital calculated as an add-on to that from IMA. There are two types of market risk measures related to regulatory capital:

- general market risk which is related to changes in the overall market prices
- specific market risk which is related to changes for the specific issuer.

In accordance with APS 110, the RWA equivalent for traded market risk using the IMA is the capital requirement multiplied by 12.5.

	Standard Method	Internal Model Approach
<b>Calculation</b>	As per APS 116 (Attachment B)	Internally developed VaR calculation
<b>General Market Risk</b>	Equities, some inflation products, some banking book foreign exchange risk	Foreign exchange, commodities, credit, interest rate and inflation products
<b>Specific Market Risk</b>	All applicable products	

Table 7.1A: Standard Method Risk-weighted Assets

	As at	
	30 Sep 18	31 Mar 18
	\$m	\$m
Interest rate risk	470	631
Equity position risk	4	8
Foreign exchange risk	-	-
Commodity risk	-	-
<b>Total standard method RWA</b>	<b>474</b>	<b>639</b>

Table 7.1B: Market Risk Risk-weighted Assets

	As at	
	30 Sep 18	31 Mar 18
	\$m	\$m
Standard method	474	639
Internal model approach	8,986	8,017
<b>Market risk RWA</b>	<b>9,460</b>	<b>8,656</b>

Table 7.1C: Internal Model Approach VaR

The following table provides information on the maximum, mean and minimum VaR over the reporting period and at period end.

	6 months ended 30 Sep 18			As at 30 Sep 18
	Mean value	Minimum value	Maximum value	
	\$m	\$m	\$m	\$m
<b>VaR at a 99% confidence level <sup>(1)</sup></b>				
Foreign exchange risk	8	5	12	8
Interest rate risk	10	9	12	9
Volatility risk	6	5	6	5
Commodities risk	-	-	1	-
Credit risk	1	1	2	1
Inflation risk	2	1	2	2
Diversification benefit	(14)	n/a	n/a	(11)
<b>Total diversified VaR at a 99% confidence level</b>	<b>13</b>	<b>11</b>	<b>17</b>	<b>14</b>
Other market risks <sup>(2)</sup>	1	-	1	1
<b>Total VaR for physical and derivative positions <sup>(3)</sup></b>	<b>14</b>	<b>11</b>	<b>18</b>	<b>15</b>

<sup>(1)</sup> The maxima / minima by risk type is likely to occur during different days in the period. As such, the sum of these figures will not equal the total maxima / minima VaR which is the maxima / minima aggregate VaR position during the period.

<sup>(2)</sup> Other market risks include exposures to various basis risks measured individually at a portfolio level.

<sup>(3)</sup> VaR is measured individually for foreign exchange risk, interest rate risk, volatility risk, commodities risk, credit risk, and inflation risk. Risk limits are applied in these categories separately, and against the total risk position.

	6 months ended 31 Mar 18			As at 31 Mar 18
	Mean value	Minimum value	Maximum value	
	\$m	\$m	\$m	\$m
<b>VaR at a 99% confidence level</b>				
Foreign exchange risk	9	5	12	8
Interest rate risk	10	8	11	10
Volatility risk	5	4	7	6
Commodities risk	-	-	1	-
Credit risk	2	1	3	1
Inflation risk	2	2	2	2
Diversification benefit	(15)	n/a	n/a	(15)
<b>Total diversified VaR at a 99% confidence level</b>	<b>13</b>	<b>11</b>	<b>15</b>	<b>12</b>
Other market risks	1	-	1	1
<b>Total VaR for physical and derivative positions</b>	<b>14</b>	<b>11</b>	<b>16</b>	<b>13</b>

**Table 7.1D: Internal Model Approach Stressed VaR**

The following table provides information on the maximum, mean and minimum stressed VaR over the reporting period and at period end.

	6 months ended 30 Sep 18			As at
	Mean value	Minimum value	Maximum value	30 Sep 18
	\$m	\$m	\$m	\$m
<b>Stressed VaR at risk at a 99% confidence level <sup>(1)</sup></b>				
Foreign exchange risk	20	10	33	23
Interest rate risk	38	33	46	36
Volatility risk	12	9	13	10
Commodities risk	1	-	3	2
Credit risk	13	11	16	11
Inflation risk	5	1	5	4
Diversification benefit	(46)	n/a	n/a	(44)
<b>Total diversified stressed VaR at a 99% confidence level</b>	<b>43</b>	<b>36</b>	<b>55</b>	<b>42</b>
Other market risks <sup>(2)</sup>	3	2	4	3
<b>Total Stressed VaR for physical and derivative positions <sup>(3)</sup></b>	<b>46</b>	<b>38</b>	<b>59</b>	<b>45</b>

<sup>(1)</sup> The maxima / minima by risk types are likely to occur during different days in the period. As such, the sum of these figures will not equal the total maxima / minima Stressed VaR which is the maxima / minima aggregate Stressed VaR position during the period.

<sup>(2)</sup> Other market risks include exposures to various basis risks measured individually at a portfolio level.

<sup>(3)</sup> VaR is measured individually for foreign exchange risk, interest rate risk, volatility risk, commodities risk, credit risk, and inflation risk. Risk limits are applied in these categories separately, and against the total risk position.

	6 months ended 31 Mar 18			As at
	Mean value	Minimum value	Maximum value	31 Mar 18
	\$m	\$m	\$m	\$m
<b>Stressed VaR at a 99% confidence level</b>				
Foreign exchange risk	21	10	29	24
Interest rate risk	35	29	42	38
Volatility risk	9	7	12	11
Commodities risk	1	-	1	-
Credit risk	13	11	16	12
Inflation risk	4	4	5	5
Diversification benefit	(39)	n/a	n/a	(46)
<b>Total diversified stressed VaR at a 99% confidence level</b>	<b>44</b>	<b>32</b>	<b>55</b>	<b>44</b>
Other market risks	3	2	5	3
<b>Total Stressed VaR for physical and derivative positions</b>	<b>47</b>	<b>34</b>	<b>60</b>	<b>47</b>

## Back-testing

VaR estimates are back-tested regularly for reasonableness. Back-testing is a process that compares the Group's daily VaR estimates against both actual and hypothetical daily profit and loss (P&L) to ensure that model integrity is maintained.

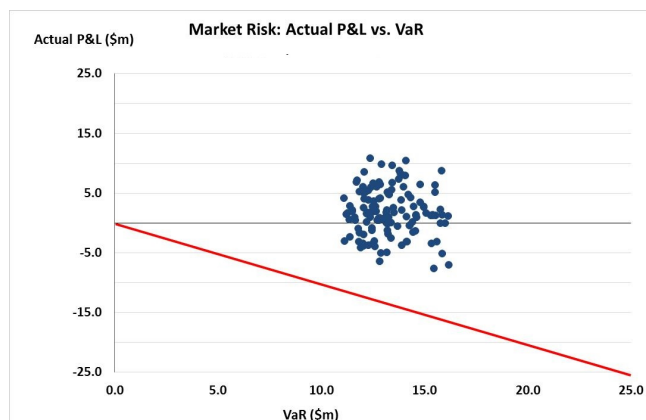
The results of back-testing are reported to senior management, risk committees, and regulators. In addition to back-testing, the risk measurement model and all pricing models are subject to periodical reviews and independent validation at frequencies specified by the Group Model Risk Policy.

**Table 7.1E: Back-testing Results**

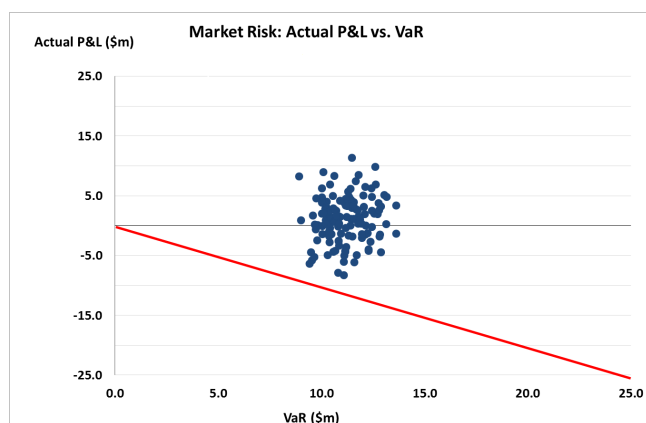
Comparison of VaR estimates to actual gains/losses	6 months ended 30 Sep 18	6 months ended 31 Mar 18
Number of "outliers" incurred for the trading portfolio	-	-

The following graphs compares the Group's daily VaR estimates against actual P&L. The red line represents a one-to-one relationship between negative actual P&L and VaR, which is an indicator of the VaR model's performance.

#### Results for the six months ended 30 September 2018



#### Results for the six months ended 31 March 2018



Back-testing, carried out by comparing the Group's daily VaR estimate against actual P&L, identified no exceptions during the six months ended 30 September 2018 and no exception during the previous six months ended 31 March 2018. This remains within the model parameters and indicates acceptable operation of the VaR model within APRA's guidelines.

## **Section 8**

# **Operational Risk**

## **Introduction**

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or external events. This includes legal risk, but excludes strategic risk and reputational risk.

The primary objective for the management of operational risk is to ensure that where operational risk exists, it is identified, assessed and managed to acceptable levels, and at the same time, allows for the achievement of business and strategic objectives and compliance with our obligations.

## **Structure and Organisation**

The Board Risk Committee, on the recommendation of the Group Risk Return Management Committee, is responsible for approving and/or endorsing the:

- Group Operational Risk Management Framework
- Group Operational Risk Appetite
- Operational Risk Capital Calculation Model.

The Group's Risk Governance structure provides the Board and Board Risk Committee with assurance over the performance of the overall Risk Management Framework. This is primarily achieved through Group Operational Risk which provides the Board, Board Risk Committee, Group Risk Return Management Committee, Group Regulatory Compliance Operational Risk Committee and the Risk Leadership Team with the information required to manage these responsibilities.

This flow of information ultimately allows the Board to discharge its responsibilities for managing the Group's operational risk exposures.

## **Management**

Group Operational Risk provides the framework, policies, standards, processes and tools for the business to use in the identification, assessment, management, monitoring, measurement and reporting of operational risks.

Implementation of the Operational Risk Management Framework leads to:

- all staff taking responsibility for managing the operational risk inherent in their day-to-day activities
- promoting and embedding a risk conscious culture and behaviour throughout the Group
- consistency in the identification, assessment, management, monitoring, measurement and reporting of operational risk
- proactive identification and management of operational risks and events to contain: direct and indirect financial loss, disruption to business processes, and non-financial impacts including regulatory, reputation, customer and management remediation
- estimates of operational risk regulatory capital that reflect the operational risk profile of the Level 2 Group
- risk decisions being made on an informed basis, considering risk appetite and the capital implications, thereby enhancing awareness and/or acceptance of operational risks.

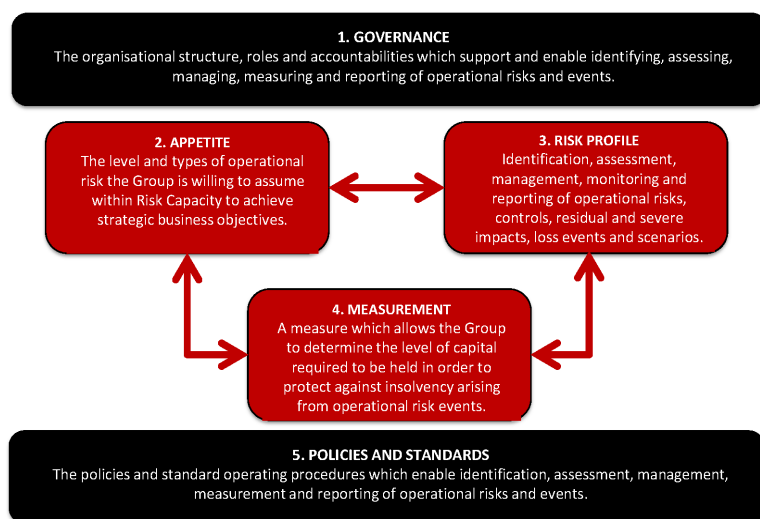
The Group creates a risk conscious environment through promoting an operational risk culture:

- of effective integration of operational risk management into day-to-day business decisions
- where risk-awareness and questioning are supported (including the exercise of appropriate judgement in the identification and management of risk)
- of compliance, not only within the strict parameters of the law, delegated authorities and other compliance requirements, but also extending to doing what is right.

The Operational Risk Management Framework applies to all entities within the Group, including any outsourced services undertaken on behalf of any business within the Group.



## The Group's Operational Risk Management Framework



The Operational Risk Management Framework and supporting policies define the principles, minimum standards and processes for the management of operational risk throughout the Group. The scope includes:

- business continuity management
- data quality
- event management
- information security
- information lifecycle management
- privacy and data protection
- model risk
- operational risk profiling
- outsourcing and offshoring
- physical security
- travel security
- executive protection
- anti-fraud.

Additional standards/processes are developed when there is a critical need to manage a specific risk area.

## Measurement

The capital attributed to operational risk is calculated using the Group's internal AMA operational risk models and supporting processes. From time to time additional overlays may be made by APRA to ensure the capital held is reflective of the Group's operational risk profile.

The Group's model has been subjected to review by independent external third parties and uses data captured from:

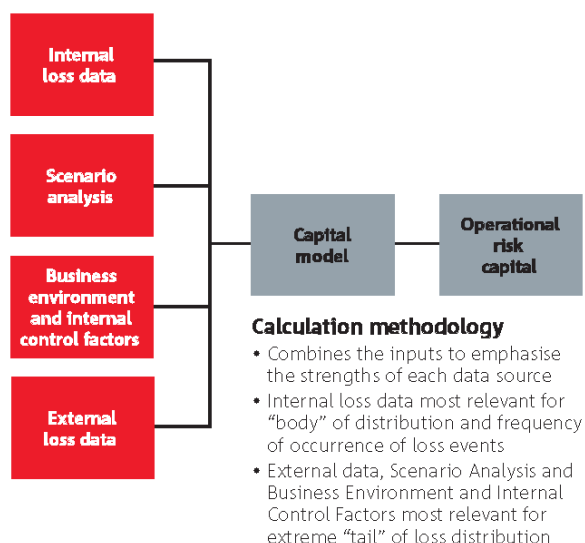
- historical internal loss data which is representative of the Group's operational loss profile
- scenario analysis data received from business and risk management professionals which considers potential extreme events faced by the Group
- relevant data from losses incurred by other financial institutions
- factors reflecting the business environment and internal controls.

Table 8.1A: Operational Risk Risk-weighted Assets

	As at	
	30 Sep 18	31 Mar 18
	\$m	\$m
Advanced measurement approach	37,500	39,027
<b>Operational risk RWA</b>	<b>37,500</b>	<b>39,027</b>

### Calculation of Operational Risk Capital

The Operational Risk Capital Calculation methodology is illustrated below.



### Monitoring and Reporting

The success of the operational risk management processes is determined by the ability of management to articulate and consistently demonstrate behaviours that promote a strong risk awareness and culture throughout the Group.

Group Operational Risk provides the following reporting:

- Monthly reporting on significant loss events, emerging issues, oversight, monitoring, and review activity. This information is available to the Board Risk Committee and Group Risk Return Management Committee as part of the Group Chief Risk Officer reporting material.
- Six monthly Material Risk Update paper to the Board Risk Committee via Group Risk Return Management Committee.

At times, the Group Chief Risk Officer and risk committees may also request Group Operational Risk to report on topics of operational risk such as Business Continuity Management and physical security. Group Operational Risk may also choose or be requested to undertake a deep dive review or provide analysis on a particular emerging issue or theme. Findings are reported to the requestor and, if material, escalated through the Risk Governance structure.

### Risk Mitigation through Insurance

A strategy to mitigate the financial impacts of operational risk exposures at the Group level is the Group's insurance program. The Group maintains and monitors the insurance program within a defined risk appetite and ensures that it aligns with the Group's current and projected operational risk exposures.

The regulatory capital measure for operational risk does not include any adjustment for insurance.

### Regulatory and Compliance Management

The Group is committed to responding appropriately to evolving community expectations and complying with all relevant laws, prudential standards, codes and policies.

The Group is also committed to identifying and monitoring changes in the regulatory environment and building constructive regulatory relationships.

Accordingly, the Group has in place dedicated policies, standard operating procedures, guidance notes and processes that are designed to ensure the effective management of regulatory and compliance obligations across the Group.

## Section 9

## Balance Sheet and Liquidity Risk

## 9.1 Funding and Liquidity Risk

## Introduction

Liquidity risk is the risk of being unable to meet financial obligations as they fall due. These obligations primarily include the repayment of deposits and the repayment of borrowings and loan capital as they mature.

Funding risk is the risk which arises due to change in appetite or capacity of the market to provide adequate long-term and short-term funds to meet the Group's strategic plans and objectives at an acceptable cost.

The objectives of the Group in managing its funding and liquidity risks are:

- to ensure that the current and future payment obligations of the Group are met as they become due
- to retain adequate liquidity buffers in the Group and subsidiary balance sheets so as to withstand severe market and institutional disruptions
- to meet planned business funding needs over a forward horizon
- to maintain access to global short-term and long-term debt capital markets and global secured funding markets
- to diversify funding sources in terms of maturity, currency, instrument, investor type and geographic region.

## Liquidity and Funding Risk Management Framework

The Group's Liquidity Risk Management Framework is approved by the Board on an annual basis. The framework comprises a Risk Appetite Statement, a Liquidity Risk Policy, a Funding Strategy, a Contingent Funding Plan and an ILAAP.

The Risk Appetite Statement includes specific metrics relating to liquidity and funding risk. These metrics are determined with reference to outcomes of liquidity stress testing, management experience, ratings agency expectations and peer alignment. Liquidity stress testing includes systemic and idiosyncratic scenarios run over a mix of short and longer timeframes and include an offshore market closure scenario and a local market disruption scenario.

Liquid asset holdings and a strong funding base are the primary mitigants to liquidity risk. The size, diversity and tenor of the liquid asset portfolio and funding mix is set annually in the Group funding strategy based on the risk appetite settings. The strategy is updated quarterly to reflect current market conditions and outlook.

The Group's liquid asset portfolio is maintained by geography, currency and legal entity across NAB, BNZ and the London, New York and Asian branches. The liquidity portfolio comprises a mix of:

- cash, Australian government and semi government securities
- offshore central bank reserves and foreign sovereign securities
- a mix of negotiable certificates of deposit, bank bills, supranational bonds, covered bonds, RMBS and internal RMBS (all available as collateral for a Committed Liquidity Facility with the Reserve Bank of Australia).

The Group's funding is sourced from:

- customer deposits generated through transactional accounts, savings accounts and term deposits from individuals, small and medium enterprises and corporations
- wholesale funding debt programs in both domestic and international markets including medium term notes, covered bonds, RMBS, commercial paper and certificates of deposits.

The Group Contingent Funding Plan provides guidance on how the Group will respond in the event of a liquidity crisis including clear instructions on accountabilities, communication, escalation process, asset liquidation options and operational requirements. The Group Contingent Funding Plan is tested and updated annually. Early warning indicators provide insight into emerging periods of funding or liquidity stress and when to trigger the Group Contingent Funding Plan.

## Measurement, Monitoring and Reporting

Liquidity risk is measured, managed and monitored daily on a cash flow basis, using scenario analysis, gap analysis and stress testing. Any non-compliance is escalated to the Group Asset and Liability Committee and Group Chief Risk Officer.

Monthly results are reported to the Group Asset and Liability Committee, Group Risk Return Management Committee and Board Risk Committee. The Group has clearly defined escalation procedures whereby liquidity events, both systemic and name specific, are monitored and appropriate actions outlined against triggers.

## 9.2 Interest Rate Risk in the Banking Book

### Introduction

Interest Rate Risk in the Banking Book (IRRBB) arises from changes in market interest rates that adversely impact the Group's financial condition in terms of earnings (net interest income) or economic value of the balance sheet. This includes:

- repricing risk, arising from changes to the overall level of interest rates and inherent mismatches in the repricing term of banking book items
- yield curve risk, arising from a change in the relative level of interest rates for different tenors and changes in the slope or shape of the yield curve
- basis risk, arising from differences between the actual and expected interest margins on banking book items over the implied cost of funds of those items
- optionality risk, arising from the existence of stand-alone or embedded options in banking book items, to the extent that the potential for those losses is not included in the above risk types.

The objective of the Group's framework is to ensure that IRRBB is managed to optimise and stabilise the Group's economic value and earnings over an investment horizon.

### Management

The Board approves the risk appetite for IRRBB, and sets the overall limits for economic capital and Earnings at Risk (EaR).

The key elements of the management framework for IRRBB include:

- The IRRBB Policy and guidance notes define the compliance and management framework to ensure that all interest rate risk positions in the banking book are identified, measured, managed and reported, and are aligned to the requirements of APS 117 *Capital Adequacy: Interest Rate Risk in the Banking Book*
- The Group and subsidiary Treasuries are responsible for managing the interest rate risk profile of the balance sheet in line with the approved risk appetite. This includes development and execution of interest rate risk management strategies
- The Funds Transfer Pricing (FTP) Policy and Guidance Notes define the FTP mechanism in place to transfer interest rate risk out of originating divisions and into the Group Treasury functions for the management of interest rate risk
- The Group and subsidiary Balance Sheet and Liquidity Risk teams are responsible for IRRBB monitoring and oversight and are independent of Group Treasury. They maintain a risk framework for IRRBB and have responsibility for IRRBB measurement of exposures, compliance monitoring and reporting
- Periodic reporting to management and governance committees of IRRBB exposures and compliance.

### Measurement

The Group has been accredited by APRA to use its internal model for the measurement of IRRBB. Interest rate risk is measured, managed and monitored using both the economic valuation approach and the earnings approach. The principal metrics used to measure and monitor IRRBB are as follows:

Measurement	Definition
<b>VaR</b>	The potential loss in economic value implied by the static balance sheet that arises from changes to the current yield curve based upon historical observations for a given holding period and confidence level.
<b>EaR</b>	The potential loss in earnings implied by the static balance sheet over a 12-month forecast period, that arises from changes in the current yield curve based on historical observations for a given holding period and confidence level.
<b>Market Value</b>	The present value of all known future cash flows implied by the static balance sheet on both a spot and historically cumulative basis.
<b>Embedded Value</b>	The economic gain or loss implied by the static balance sheet which equates to the market value less the book value, less accrued interest.
<b>Economic Value Sensitivity (EVS)</b>	The potential impact of a parallel decrease in interest rates on the present value of all known future cash flows implied by the static balance sheet.
<b>Net Interest Income Sensitivity (NIIS)</b>	The potential impact of a parallel decrease in interest rates on the earnings over a 12-month forecast period implied by the static balance sheet.
<b>Stress Testing</b>	The potential loss in earnings and economic value from large parallel and non-parallel yield curve shocks.

VaR and EaR are measured with a three-month holding period and 99% confidence level for internal reporting purposes.

The Group incorporates behavioural modelling where contractual-based modelling is inappropriate for measuring IRRBB, such as for prepayments, non-bearing interest accounts, rate locks and CET1 capital. Any changes to the material assumptions require subsidiary Asset, Liability and Capital Committees or Group Asset and Liability Committee approval.

IRRBB regulatory capital includes a value for repricing and yield curve risk, basis risk, optionality risk and embedded value. The components of IRRBB regulatory capital are calculated using a historical VaR simulation using at least six years of historical data at a 99% confidence level, one-year investment term of capital, and a 12-month holding period.

## Monitoring and Reporting

The IRRBB metrics are measured and monitored on a monthly basis as a minimum. Compliance with limits is reported to subsidiary Asset, Liability and Capital Committees and the Group Asset and Liability Committee on a monthly basis. IRRBB regulatory capital is also calculated monthly.

Table 9.2A: Interest Rate Risk in the Banking Book

The following table provides the increase or decrease in economic value for upward and downward rate shocks broken down by currency. The Level 2 Group's major currencies are modelled on an individual basis. The remaining minor currencies are aggregated and modelled using a single yield curve. The 200 basis point interest rate shock results include earnings offset.

	As at 30 Sep 18		As at 31 Mar 18	
	200 bp parallel increase	200 bp parallel decrease	200 bp parallel increase	200 bp parallel decrease
	\$m	\$m	\$m	\$m
<b>Change in economic value</b>				
AUD	(70)	185	(322)	459
CAD	-	-	-	-
CHF	-	-	1	(1)
EUR	(7)	8	(3)	3
GBP	4	(4)	(8)	8
HKD	1	(1)	2	(2)
JPY	4	(4)	4	(4)
NZD	(227)	235	(169)	173
USD	(67)	75	44	(43)
Other	1	(1)	-	-
<b>Total change in economic value</b>	<b>(361)</b>	<b>493</b>	<b>(451)</b>	<b>593</b>

Table 9.2B: IRRBB Risk-weighted Assets

	As at	
	30 Sep 18	31 Mar 18
	\$m	\$m
<b>IRRBB RWA</b>	11,343	9,850

## 9.3 Equity Holdings in the Banking Book

### Introduction

The Group mainly holds equities in the banking book for strategic purposes. From time to time, the Group also takes an equity stake in a customer as part of debt management activities. This exposes the Group to non-traded equity risk, which refers to the potential for financial loss as a result of reduction in the value of an equity investment. For capital purposes, equities are deducted from CET1 capital.

### Management

Equity risk appetite limits are reflected in the Group Risk Appetite Statement and the Group Balance Sheet and Liquidity Risk Limits Schedule. The Group Equity Risk Policy defines the compliance and management framework in relation to undertaking, valuation and measurement, monitoring and reporting of equity investments outside of the trading book. It applies to both direct equity investments and equity underwriting activities.

Business units are responsible for managing their approved equity investments in line with the requirements of the non-traded equity risk framework. Group Balance Sheet and Liquidity Risk are responsible for independent oversight of the non-traded equity risk framework.

Monthly reports are provided to senior management and risk committees.

### Valuation and Accounting

The accounting treatment for investments in equity instruments depends on whether the investment is an associate. An associate is an entity over which an investor has significant influence, being the power to participate in the financial and operating policy decisions of the investee but not control or joint control over these policies.

Investments in associates are accounted for using the equity method, whereby the investment is initially recognised at cost and adjusted thereafter for the post-acquisition change in the investor's share of the entity's net assets. The investor's profit or loss includes its share of the entity's profit or loss, and the investor's other comprehensive income includes its share of the entity's other comprehensive income.

Investments in equity instruments that are not associates, are classified on initial recognition as fair value through other comprehensive income or fair value through profit or loss. Fair value is determined using acceptable market valuation techniques.

**Table 9.3A: Equity Holdings in the Banking Book**

The following table provides the carrying value of equity investments as reported on the Group's balance sheet, as well as the estimated fair value of those investments.

	<b>As at 30 Sep 18</b>		<b>As at 31 Mar 18</b>	
	<b>Carrying value</b>	<b>Fair value</b>	<b>Carrying value</b>	<b>Fair value</b>
	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>
<b>Unlisted equities</b>	988	1,024	1,016	1,012

**Table 9.3B: Gains and Losses from Equity Holdings**

The following table provides life-to-date or cumulative gains after tax from investments in equity instruments.

Cumulative realised gains represent the difference between the cost of investments in equity instruments and proceeds where there has been a sale and/or liquidation in the six months to the end of the reporting period. Cumulative unrealised gains represent the difference between the cost of investments in equity instruments and the carrying value.

	<b>As at</b>	
	<b>30 Sep 18</b>	<b>31 Mar 18</b>
	<b>\$m</b>	<b>\$m</b>
<b>Gains on equity investments</b>		
Cumulative realised gains	21	2
Cumulative unrealised gains <sup>(1)</sup>	91	112

<sup>(1)</sup> As investments in equity instruments are a deduction for capital purposes, cumulative unrealised gains are not included in CET1 capital, Tier 1 capital or Tier 2 capital.

## 9.4 Foreign Exchange Risk in the Banking Book

The Group's banking book has exposure to risk arising from currency movements as a result of participation in the global financial markets and international operations. Foreign Exchange Risk in the Banking Book (FXRBB) arises from both operating business activities and structural foreign exchange exposures from foreign investments and capital management activities. Currency movements can impact profit and loss, cash flows and the balance sheet.

The Group's objective in relation to foreign exchange risk is to protect the Group's capital ratios from the impact of currency movements and to manage non-structural foreign exchange risk within risk appetite. The Group's main structural foreign exchange exposures are due to its investment in BNZ.

The Board approves the risk appetite for FXRBB, setting the overall VaR and Economic Capital limit. In addition, with guidance from the Board Risk Committee, it monitors and reviews the adequacy of the Group's foreign exchange risk compliance and management framework developed by management.

The key elements of the management framework for FXRBB include:

- The Group Foreign Exchange Risk in the Banking Book Policy defines the compliance and management framework to ensure all foreign exchange positions (both structural and non-structural) in the banking book are identified, measured, managed and reported.
- The Group and subsidiary Treasuries are responsible for the development and execution of Group Asset and Liability Committee and Board approved foreign exchange risk management strategies.
- Group Balance Sheet & Liquidity Risk and subsidiary Balance Sheet and Liquidity Risk teams provide independent oversight. They are responsible for monitoring and oversight to ensure FXRBB is managed in compliance with the Balance Sheet and Liquidity Risk FXRBB Policy.
- Periodic reporting to management and governance committees of FXRBB exposures and compliance.

## 9.5 Liquidity Disclosures

### Liquidity Coverage Ratio

The Liquidity Coverage Ratio (LCR) is a metric that measures the adequacy of High Quality Liquid Assets (HQLA) available to meet net cash outflows over a 30-day period during a severe liquidity stress scenario. HQLA consists primarily of cash, deposits with central banks, Australian semi-government and Commonwealth Government securities and securities issued by foreign sovereigns. The APRA minimum coverage level is 100% for both NAB and the Level 2 Group from 1 January 2015.

The Group LCR is presented in Table 9.5A *Liquidity Coverage Ratio Disclosure Template* for the three months ended 30 September 2018 and 30 June 2018, which reflects the Basel standard disclosure template and is based on a simple average of daily LCR outcomes excluding weekends.

The Group maintains a well diversified liquid asset portfolio to support regulatory and internal requirements in the various countries in which it operates. Average liquid assets for the three months ended 30 September 2018 were \$142 billion, of which HQLA was \$81 billion. From 30 June 2018 to 30 September 2018 LCR reduced by 4% as average holdings of liquid assets fell slightly, in combination with higher net cash outflows driven by timing of cash inflows from wholesale lending.

Alternative Liquid Assets (ALA) relate to the Committed Liquidity Facility provided by the RBA. HQLA held by BNZ, which is excess of meeting an LCR of 100%, are excluded reflecting liquidity transferability considerations. The amount excluded was on average \$3 billion during the three months to 30 September 2018.

The Committed Liquidity Facility value used in the LCR calculation is the lesser of the undrawn portion of the facility granted to the Group and the value of the collateral the Group chooses to hold at any given time to support the facility and its liquidity requirements. This collateral is a combination of internal RMBS and other RBA repo eligible securities including bank bills and third party RMBS. The drawn portion of the Committed Liquidity Facility relates to accounts held with the RBA for the settlement of payment obligations. The Group has an available Committed Liquidity Facility of \$59.3 billion during the period 1 January 2018 to 31 December 2018.

LCR net cash outflows represents the net cash flows that could potentially occur from on and off-balance sheet activities within a 30-day severe liquidity stress scenario. The cash flows are calculated by applying APRA prescribed run-off factors to maturing debt and deposits and inflow factors to assets. High run-off factors are applied to sophisticated investors and depositors including long term and short term debt holders, financial institution and corporate depositors. Lower run-off factors are applied to deposits less likely to be withdrawn in a period of severe stress. These include deposits from people and from small and medium enterprises. Deposits from corporate and financial institutions which are considered to be operational in nature also attract a lower run-off, such as deposits from the Group's custody business. The Group conducts an annual review of its interpretation of the LCR definitions. In 2018 the Group updated its definition of stable deposits and credit and liquidity facilities.

Cash outflows arising from business activities that create contingent funding and collateral requirements such as repurchase agreements and derivatives and the extension of credit and liquidity facilities to customers are also captured within the LCR calculation, along with an allowance for debt buyback requests.

The Group manages its LCR position daily within a target range that reflects management risk appetite across the legal entity structure, major currencies and jurisdictions in which business activities are undertaken.



Table 9.5A: Liquidity Coverage Ratio Disclosure Template

		3 months ended			
		30 Sep 18 65 data points		30 Jun 18 62 data points	
		Total unweighted value (average) \$m <sup>(1)</sup>	Total weighted value (average) \$m	Total unweighted value (average) \$m <sup>(1)</sup>	Total weighted value (average) \$m
<b>Liquid assets, of which:</b>			141,869		143,490
1	High-quality liquid assets (HQLA) <sup>(2)</sup>	n/a	81,121	n/a	83,005
2	Alternative liquid assets (ALA)	n/a	55,317	n/a	55,363
3	Reserve Bank of New Zealand (RBNZ) securities <sup>(2)</sup>	n/a	5,431	n/a	5,122
<b>Cash outflows</b>					
4	Retail deposits and deposits from small business customers, of which:	185,462	21,558	184,319	21,737
5	stable deposits	57,073	2,854	51,931	2,597
6	less stable deposits	128,389	18,704	132,388	19,140
7	Unsecured wholesale funding, of which:	130,581	64,611	125,698	62,279
8	operational deposits (all counterparties) and deposits in networks for cooperative banks	56,148	15,270	52,503	14,469
9	non-operational deposits (all counterparties)	59,766	34,674	60,349	34,964
10	unsecured debt	14,667	14,667	12,846	12,846
11	Secured wholesale funding	n/a	467	n/a	1,244
12	Additional requirements, of which	171,512	32,296	170,434	32,863
13	outflows related to derivatives exposures and other collateral requirements	16,817	16,817	17,539	17,539
14	outflows related to loss of funding on debt products	-	-	-	-
15	credit and liquidity facilities	154,695	15,479	152,895	15,324
16	Other contractual funding obligations	1,201	97	398	291
17	Other contingent funding obligations	73,588	5,336	75,271	5,556
18	<b>Total cash outflows</b>	<b>n/a</b>	<b>124,365</b>	<b>n/a</b>	<b>123,970</b>
<b>Cash inflows</b>					
19	Secured lending (e.g. reverse repos)	53,143	1,508	56,537	1,988
20	Inflows from fully performing exposures	21,882	12,818	23,478	13,853
21	Other cash inflows	465	465	531	531
22	<b>Total cash inflows</b>	<b>75,490</b>	<b>14,791</b>	<b>80,546</b>	<b>16,372</b>
		<b>Total adjusted value</b>		<b>Total adjusted value</b>	
23	<b>Total liquid assets</b>		141,869		143,490
24	<b>Total net cash outflows</b>		109,574		107,598
25	<b>Liquidity Coverage Ratio (%)</b>		129%		133%

<sup>(1)</sup> Unweighted inflow and outflow values are outstanding balances maturing or callable within 30 days.<sup>(2)</sup> Weighted values are calculated after applying caps to the amount of liquid assets included from subsidiaries.

### Net Stable Funding Ratio

The Net Stable Funding Ratio (NSFR) is a metric that measures the extent to which assets are funded with stable sources of funding in order to mitigate the risk of future funding stress. The APRA minimum coverage level is 100% for both NAB and the Level 2 Group from 1 January 2018.

The Group NSFR is presented in Table 9.5B *Net Stable Funding Ratio Disclosure Template* as at 30 September 2018 and 30 June 2018, which reflects the Basel standard disclosure template and is based on spot balances. The NSFR was 113% as at 30 September 2018 with \$500 billion of available stable funding (ASF) available to meet \$443 billion of required stable funding (RSF). Whilst the NSFR as at 30 September 2018 was consistent with 30 June 2018, at 30 September 2018 there was higher RSF driven by new lending, offset by increased stable funding in the form of regulatory capital.

ASF is calculated by applying weightings to capital and liabilities to reflect the portion that is expected to be available over a one year time horizon. The maturity of funding is taken as being the earliest date at which the funding can be withdrawn. RSF reflects the liquidity characteristics of the assets and the expectation that these assets and off-balance sheet exposures will require funding over the next year. The maturity of assets is taken as being the latest possible date at which the asset may mature.

Table 9.5B: Net Stable Funding Ratio Disclosure Template

		As at 30 Sep 2018				Weighted value
		Unweighted value by residual maturity				
		No maturity	< 6 months	6 months to < 1 year	≥ 1 year	
Available Stable Funding (ASF) Item						
1	Capital	49,489	2,323	-	12,259	64,070
2	of which: regulatory capital	49,489	2,323	-	12,259	64,070
3	of which: other capital instruments	-	-	-	-	-
4	Retail deposits and deposits from small business customers	160,205	79,061	625	418	219,640
5	of which: stable deposits	59,876	6,521	-	-	63,077
6	of which: less stable deposits	100,329	72,540	625	418	156,563
7	Wholesale funding	80,329	217,361	33,145	127,800	216,489
8	of which: operational deposits	55,308	-	-	-	27,654
9	of which: other wholesale funding	25,021	217,361	33,145	127,800	188,835
10	Liabilities with matching interdependent assets	-	-	-	-	-
11	Other liabilities	-	22,322	-	-	-
12	of which: NSFR derivative liabilities <sup>(1)</sup>			4,720		
13	of which: all other liabilities and equity not included in the above categories	-	17,602	-	-	-
14	Total ASF					500,198
Required Stable Funding (RSF) Item						
15a	Total NSFR (HQLA)					3,602
15b	ALA					5,930
15c	RBNZ securities					275
16	Deposits held at other financial institutions for operational purposes	-	-	-	-	-
17	Performing loans and securities	15,275	117,215	35,042	441,669	396,471
18	of which: performing loans to financial institutions secured by Level 1 HQLA	-	48,442	-	-	4,844
19	of which: performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	27	20,697	3,505	16,395	21,280
20	of which: performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and public sector entities (PSEs). Of which:	14,110	39,105	24,263	134,627	155,425
21	of which: with a risk-weight of less than or equal to 35% under APS 112	-	-	-	9,732	6,326
22	of which: performing residential mortgages, of which:	-	6,417	6,124	287,550	209,869
23	of which: with a risk-weight equal to 35% under APS 112	-	6,417	6,124	245,860	174,433
24	of which: securities that are not in default and do not qualify as HQLA, including exchange-traded equities	1,138	2,554	1,150	3,097	5,053
25	Assets with matching interdependent liabilities	-	-	-	-	-
26	Other assets:	15,504	3,860	72	11,786	28,833
27	of which: physical traded commodities, including gold	-				-
28	of which: assets posted as initial margin for derivative contracts and contributions to default funds of central counterparties (CCPs) <sup>(1)</sup>				1,341	1,140
29	of which: NSFR derivative assets <sup>(1)</sup>				3,301	3,301
30	of which: NSFR derivative liabilities before deduction of variation margin posted <sup>(1)</sup>				2,627	2,627
31	of which: all other assets not included in the above categories	15,504	3,860	72	4,517	21,765
32	Off-balance sheet items	-	-	-	157,949	8,263
33	Total RSF					443,374
34	Net Stable Funding Ratio (%)					113%

<sup>(1)</sup> These amounts are not required by APS 330 to be allocated to a maturity bucket.

		As at 30 Jun 2018				Weighted value
		Unweighted value by residual maturity				
		No maturity	< 6 months	6 months to < 1 year	≥ 1 year	
Available Stable Funding (ASF) Item						
1	Capital	48,089	809	1,514	12,225	62,637
2	of which: regulatory capital	48,089	809	1,514	12,225	62,637
3	of which: other capital instruments	-	-	-	-	-
4	Retail deposits and deposits from small business customers	159,738	80,250	583	472	220,238
5	of which: stable deposits	58,696	6,330	-	-	61,775
6	of which: less stable deposits	101,042	73,920	583	472	158,463
7	Wholesale funding	79,714	219,653	40,006	124,253	216,727
8	of which: operational deposits	56,398	-	-	-	28,199
9	of which: other wholesale funding	23,316	219,653	40,006	124,253	188,528
10	Liabilities with matching interdependent assets	-	-	-	-	-
11	Other liabilities	-	21,361	-	-	-
12	of which: NSFR derivative liabilities			3,961		
13	of which: all other liabilities and equity not included in the above categories	-	17,400	-	-	-
14	Total ASF					499,602
Required Stable Funding (RSF) Item						
15a	Total NSFR (HQLA)					3,559
15b	ALA					5,930
15c	RBNZ securities					268
16	Deposits held at other financial institutions for operational purposes	-	-	-	-	-
17	Performing loans and securities	15,313	119,538	42,633	433,301	394,585
18	of which: performing loans to financial institutions secured by Level 1 HQLA	-	47,775	3,340	-	6,447
19	of which: performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	21	24,023	4,600	15,498	21,422
20	of which: performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and public sector entities (PSEs). Of which:	14,315	38,827	24,546	132,032	153,102
21	of which: with a risk-weight of less than or equal to 35% under APS 112	-	-	-	9,574	6,223
22	of which: performing residential mortgages, of which:	-	6,166	5,484	284,898	208,679
23	of which: with a risk-weight equal to 35% under APS 112	-	6,166	5,484	243,272	173,297
24	of which: securities that are not in default and do not qualify as HQLA, including exchange-traded equities	977	2,747	4,663	873	4,935
25	Assets with matching interdependent liabilities	-	-	-	-	-
26	Other assets:	15,233	4,417	74	12,692	29,991
27	of which: physical traded commodities, including gold	-				-
28	of which: assets posted as initial margin for derivative contracts and contributions to default funds of central counterparties (CCPs)			1,317		1,119
29	of which: NSFR derivative assets			4,398		4,398
30	of which: NSFR derivative liabilities before deduction of variation margin posted			2,434		2,434
31	of which: all other assets not included in the above categories	15,233	4,417	74	4,543	22,040
32	Off-balance sheet items	-	-	-	161,441	8,292
33	Total RSF					442,625
34	Net Stable Funding Ratio (%)					113%

## Section 10

## Remuneration

## 10.1 General Disclosures

The Group provides detailed information specific to remuneration for the Executive Leadership Team (ELT) in the Remuneration Report section of the 2018 Annual Financial Report.

These disclosures outline qualitative information about the Group's remuneration frameworks and policies and how they incorporate risk considerations. The qualitative information is relevant for all employees of the Group, including:

- senior managers and material risk takers of the Group (in respect of which there are also quantitative disclosures in section 10.2), and
- senior managers, risk managers and other material risk takers of the London branch (in respect of which there are also quantitative disclosures in section 10.3).

This disclosure has been prepared in accordance with APS 330, which requires disclosure in respect of senior managers and material risk takers of the Group for the year ended 30 September 2018 (referred to as 2018 throughout this section). The types of persons considered as senior managers and material risk takers are outlined in the following table, with details of the number of individuals who held those roles in 2018. Individuals within this disclosure have been identified consistent with the definitions provided in paragraphs 22 of APS 330 and paragraph 57(a) and (c) of CPS 510 *Governance*.

	Number of individuals <sup>(1)</sup>	Definition
Senior managers	21	Members of the ELT, other Accountable Persons and senior managers who are members of the Group Risk Return Management Committee and business line Chief Risk Officers <sup>(2)</sup>
Material risk takers	42	Executives of the Group who can substantially impact the financial performance and capital position of the Group

<sup>(1)</sup> There were 22 senior managers and 31 material risk takers in 2017.

<sup>(2)</sup> Accountable person under the Banking Act 1959 (Cth). All members of the ELT are also Accountable Persons.

## Remuneration Governance

The Remuneration Committee has been established by the Board. The Remuneration Committee's charter sets out its scope, authority, duties and responsibilities. The full charter is available online at [www.nab.com.au/about-us/corporate-governance](http://www.nab.com.au/about-us/corporate-governance).

As at the date of this report, the Remuneration Committee was comprised of four independent non-executive directors (including the Chairman of the Remuneration Committee). In 2018 the Remuneration Committee met 13 times (2017: 13 times).

In 2018 the Remuneration Committee Chairman received an annual fee of \$55,000 (2017: \$55,000) and other members of the Remuneration Committee received an annual fee of \$27,500 (2017: \$27,500) in respect of their membership of the Remuneration Committee or a pro-rated amount where members fulfilled the role for part of the year.

The Remuneration Committee retained KPMG-3dc to provide information to assist the Remuneration Committee in making remuneration decisions and recommendations to the Board. KPMG-3dc did not make any remuneration recommendations in 2018.

## Remuneration Processes

## Remuneration Policy

The Group Remuneration Policy covers all employees, including senior managers and material risk takers. The Group's remuneration frameworks are designed to support the Group's strategy through building a strong culture that encourages the right behaviours to deliver sustainable customer, shareholder and business outcomes by:

- attracting, retaining and rewarding employees to drive performance without encouraging poor customer outcomes
- aligning the interests of employees and shareholders through ownership of NAB securities
- encouraging behaviour that supports the Group's long-term financial soundness and its risk management framework and behaviour that prevents matters arising that would adversely affect the Group's prudential standing or prudential reputation
- complying with jurisdictional remuneration regulations and the Group's diversity, inclusion and pay equity commitments.

Remuneration is provided in two components:

- fixed remuneration provided as cash and benefits (including employer superannuation) to attract and retain a high performing team to deliver on the Group's strategy
- performance-based variable reward to align to delivery of the Group's strategy and shareholder outcomes, and reflecting both individual and business performance.

The fixed remuneration and variable reward mix is balanced to ensure that the fixed component provides sufficient remuneration to take into account the possibility of paying no variable reward. Variable reward should be sufficiently meaningful to drive individual performance without encouraging inappropriate risk taking or conduct.

The target reward mix is based on market information and practices. In any year, the actual reward mix will vary, given the overlay of business performance and individual performance on variable reward outcomes.

The Board approves individual remuneration arrangements for the ELT and any other senior executives of the Group as determined by the Board. Individual remuneration for other senior managers and material risk takers is approved by the appropriate manager in accordance with the Group Remuneration Policy. The Board approves and monitors the remuneration framework and overall outcomes for senior managers and material risk takers.

### Other Features of the Group Remuneration Policy

#### Malus

The Board has absolute discretion to adjust any performance-based components of remuneration down, or to zero, where appropriate, including as a result of malus<sup>(1)</sup>. This includes varying vesting of variable rewards. The Board monitors and reviews individual and Group performance periodically during the deferral period, taking into account various qualitative matters (such as the quality of the financial results, management of risk, people and reputation, shareholder expectations, and sustainability and the environment). This approach ensures performance has been sustained over the longer term. The Board may, at any time prior to vesting, make a decision to forfeit some or all deferred and unvested reward.

This discretion can also be applied to performance-based variable reward yet to be awarded, whether in cash or equity.

Malus and Board discretion may apply to any employee across the Group, by division, by role and/or individual, depending on circumstances.

#### Clawback (recovery of paid and vested variable reward)

Variable reward, including retention rewards, is subject to clawback:

- for up to seven years from the award date for some UK material risk takers and up to 10 years from the award date for UK senior managers (under the UK Senior Managers and Certification Regime)
- for Accountable Persons who have not complied with their accountability obligations under the *Banking Act 1959* (Cth) (the Banking Act).

For UK material risk takers, the employee will be required to repay, up to the full amount, any performance-based variable reward, where the Board (in its absolute discretion) determines that one or more of the following circumstances have arisen before the seventh anniversary of the relevant award date:

- the employee has participated in, or was responsible for, conduct which resulted in significant losses to the Group or relevant business
- the employee has failed to meet appropriate standards of fitness and propriety
- the Group has reasonable evidence of employee misbehaviour or material error
- the Group, or the relevant business suffered a material failure of risk management, taking into account the employee's level of responsibility.

For Accountable Persons who have not complied with their accountability requirements under the Banking Act, the employee will be required to repay an amount determined by the Board (in its absolute discretion), if the Board determines that clawback is required to comply with the Group's obligations under the Banking Act related to variable remuneration.

#### Mandatory shareholding requirement

Members of the ELT are required to accumulate and retain NAB equity over a five year period from commencement in an ELT role, to an amount equal to:

- two times fixed remuneration for the Group Chief Executive Officer
- one times fixed remuneration for other ELT members.

Details of individual ELT member's NAB shareholdings are set out in the Remuneration Report section of the 2018 Annual Financial Report.

#### Commencement, retention and guaranteed awards

Commencement awards are used to buy-out unvested equity, variable reward or other benefits from a new employee's previous employment. The amount, timing and performance hurdles relevant to any such awards are based on evidence provided by the new employee of the benefit offered by the previous employer, had the person remained in their previous employment. The awards are provided in the form of NAB equity or cash, subject to performance hurdles, restrictions and certain forfeiture conditions, including forfeiture on resignation, with these unique to each offer.

<sup>(1)</sup> Such as where a person has engaged in fraud, dishonesty, gross misconduct, behaviour that may negatively impact the Group's long-term financial soundness or prudential standing or prudential reputation, or has materially breached a representation, warranty, undertaking or any other obligation to the Group, or behaviour that brings the Group into disrepute, or has failed to comply with their accountability obligations under the Banking Executive Accountability Regime, or the financial results that led to the NAB shares being allocated are subsequently shown to be materially misstated or there has been a significant and unintended deterioration in the financial performance of the Group resulting directly or indirectly from an act or omission by the person.

The Group provides retention awards for key employees in roles where retention is critical over a medium-term timeframe (generally two to three years). These are normally provided in the form of NAB equity or cash, subject to a restriction period, achievement of individual performance standards and forfeiture conditions, including forfeiture on resignation. In the UK, retention payments require prior approval from the regulator.

Guaranteed incentives or bonuses do not support the Group's performance-based culture and are not provided as part of the Group Remuneration Policy.

### Remuneration Policy Review

In 2018 NAB introduced a simpler executive remuneration framework for the ELT, which was applied with effect from 1 October 2017. The new framework removes complexity and encourages performance that represents the interests of all NAB stakeholders. Its development involved engagement with investors, proxy advisors, regulators and executives. It is designed to encourage long-term decisions, to ensure that the Group delivers exceptional customer service and to align ELT variable reward with shareholder outcomes. The ELT now receive remuneration in only two components (replacing short term and long term incentives previously provided). The first component is fixed remuneration (effectively base salary). The second component is a variable reward. The variable reward is at-risk, based on the performance of the individual and the performance of the Group. Board has absolute discretion to adjust variable reward, including for matters relating to conduct and reputation. Further details are outlined in the Remuneration Report section of the 2018 Annual Financial Report.

The Board also approved inclusion of a business transformation goal in determining the Group performance (also known as the One NAB Score) to more closely align variable reward with delivery of key medium and long term objectives of the Group's strategy. For 2018, the transformation goal consisted of two metrics - Priority Segments Net Promoter Score<sup>(1) (2)</sup> (NPS) and productivity savings.

During 2018, a number of legacy sales based reward plans were closed. 97% of the Group's employees are now on a single variable reward plan similar to the ELT.

### Risk and Financial Control Employees

Risk and financial control employees (as defined in paragraph 57(b) of CPS 510) are critical to effective management of risk across the Group.

Independence from the business for these employees is assured through:

- setting the reward mix so that variable reward is not significant enough to encourage inappropriate behaviours while remaining competitive with the external market
- the Risk function and Finance function making remuneration decisions for these employees, rather than the business these employees support
- Group performance and function performance is a key component for calculating employee variable reward, rather than the performance of the business these employees support.

The Remuneration Committee reviews, and the Board approves, remuneration structures for these employees and oversees the overall remuneration outcomes for employees in these roles at least annually.

### Remuneration and Risk

Effective risk management, including a sound risk culture, is essential to achieving the Group's vision to be Australia's leading bank, trusted by customers for exceptional service. Risk exists in all of the Group's business and the environment in which it operates. The Group's culture is shaped by its values, including the NAB value 'Do the right thing'. The Group's risk culture is aligned to risk appetite and values.

Risk is the responsibility of all employees of the Group. A sound risk culture is where the mind-set, decisions and behaviour of employees are aligned to the Group's values and contribute to sustainable outcomes for customers, shareholders and external stakeholders. All employees are required to complete annual mandatory risk learning to ensure they are aware of their risk accountabilities as they relate to their role.

The Group influences culture by focusing on leadership behaviour, systems and people, and reinforcing expectations of the Group's risk culture and behaviours through aligning remuneration with performance outcomes. Regular reporting is provided to the Board on culture and the impact this may have on risk management outcomes.

<sup>(1)</sup> Net Promoter® and NPS® are registered trademarks and Net Promoter Score and Net Promoter System are trademarks of Bain & Company, Satmetrix Systems and Fred Reichheld.

<sup>(2)</sup> Priority Segments Net Promoter Score (NPS) is a simple average of the NPS scores of four priority segments: Home Owners, Investors, Small Business (\$0.1 million-<\$5 million) and Medium Business (\$5 million-<\$50 million). The Priority Segments NPS data is based on six month moving averages from Roy Morgan Research and DBM BFSM Research.

## Risk Measures and Aligning Risk and Reward

A number of risk measures exist across each of the Group's material risks (see *Risk Governance and Management* for further details).

Variable reward outcomes reflect risk at a number of levels:

### Individual performance plans

All employees have a performance plan with up to four goals, inclusive of a mandatory risk goal. The risk goal requires performance in four key areas:

- Risk appetite - operating the business within approved risk appetite
- Compliance - operating the business to be compliant with obligations and policies
- Risk capability - appropriately designed, effective controls and practices to mitigate risk
- Risk culture - demonstration of risk-focused actions that lead to good risk management outcomes, processes and policies.

The employee's performance against these risk measures is reflected, in part, through the employee's variable reward. If risk is not appropriately managed, the employee's variable reward will be reduced. The Board or the Risk function has the ability to adjust an employee's overall variable remuneration down, or to zero, where material events or systemic failures have occurred.

### Conduct gate

Employees must conduct themselves in accordance with the behavioural expectations outlined in the NAB Code of Conduct. This includes ensuring they comply with Group policies, including the Group Securities Trading Policy and Conflicts of Interest Policy. In particular, the Group Securities Trading Policy specifically prohibits directors and employees from protecting the value of unvested securities (including unvested deferred variable remuneration) with derivative instruments. Directors and employees can protect the value of vested securities in limited circumstances. Employees who do not pass the conduct expectations of their role will have their variable reward reduced in part, or in full, depending on the severity of the breach and may have unvested variable reward forfeited or lapsed. They may also be subject to other disciplinary action.

### One NAB Score

The One NAB Score is a measure of the Group's performance over a financial year. The financial measures used to determine the One NAB Score capture a number of material risks as described below.

### Risk adjustment of business outcomes

The Remuneration Committee (with assistance from the Board Risk Committee) may recommend to the Board adjustments to the Group's variable reward outcomes. The Remuneration Committee considers Group reward outcomes taking into account the overall health of the Group's financial result against the risk management framework, Board approved risk appetite and qualitative factors. Considerations include the Group's overall risk profile, prudential compliance, breaches and incidents, timeliness of escalation and management of events and breaches. Customer and reputational impacts are also considered.

## Linking Performance and Remuneration

Performance is linked to remuneration through both fixed remuneration and variable reward components.

Fixed remuneration is set with consideration of role complexity and responsibilities, the individual's capabilities, experience and knowledge, individual performance, internal and external market role relativities, and pay equity considerations.

Variable reward is determined based on a combination of individual performance and business performance.

Business performance for the One NAB Score is measured by a mix of cash earnings, cash return on equity, Return on Total Allocated Equity (ROTAE) and business transformation. These measures reasonably capture the effects of a number of material risks and minimise actions that promote short-term results at the expense of longer-term business growth and success. The One NAB Score impacts variable reward outcomes for the ELT and the Group STI plan which most employees participate in. The One NAB Score is calculated for the Group using the following key performance measures:

Performance measures	Weighting
- Cash earnings	25%
- Cash return on equity	25%
- ROTAE	25%
- Business transformation	25%

An employee's individual performance is assessed across all performance elements - conduct, core role, risk, goals and values and behaviours - inclusive of the what and the how. Performance assessment considers whether they have conducted themselves in compliance with the NAB Code of Conduct; whether they have achieved the core expectations of their role; whether they have met their risk goal; progress in achieving their stretch goals; and how they demonstrate the Group's values and behaviours. An employee's performance plan defines stretch performance measures and targets relevant to the employee's role that support delivery of the Group's longer-term strategy.



Examples of performance measures used across the Group in 2018 were:

Category	Example performance measures
Customer <i>Deliver a great customer experience and grow customer advocacy</i>	- Customer advocacy (NPS)
Risk <i>Taking the right risk, with the right controls for the right returns</i>	- Adherence to risk frameworks and policies with no material breaches - Adherence to risk settings and limits applicable to role - First line risk accountabilities
Strategy <i>Implement Group strategy</i>	- Delivery of specific projects linked to strategy - Process/technology change
Other <i>Goal relevant to specific role</i>	- ROE - Deliver on financial plan - Implement initiative by timeframe and budget

Employees must achieve the expectations of their core role and the minimum conduct requirements to be eligible for variable reward.

A portion of variable reward is provided as deferred equity or deferred cash. The quantum and period of deferral is commensurate with the level of risk within a role and the ability to reliably measure business outcomes. This allows time to confirm that the initial individual performance and business performance outcomes are realised and if not, for the deferred variable reward to be adjusted downwards. Generally, deferral is only applied to amounts of \$2,000 or more.

Variable reward links to Group and business performance by delivering a smaller One NAB Score when performance is less than target and a larger One NAB Score when performance is above target.

Poor performance during a performance period will be reflected in the variable reward awarded for the current year and the level of vesting of other variable rewards from prior years. If performance is significantly weak, this may result in no variable reward being awarded and no vesting of other awards.

The Remuneration Committee, with assistance from the Board Risk Committee, reviews financial and risk outcomes at the end of the performance year and recommends to the Board the One NAB Score, taking into account both financial and non-financial measures, shareholder expectations and the quality of the financial results.

### Adjusting Remuneration for Longer-Term Performance

Longer-term performance is reflected in the design of the Group's variable reward arrangements. Variable reward plans contain performance metrics that are set to achieve the Group's longer-term strategy. Deferral of a portion of variable reward allows for the reward to be adjusted after the initial performance assessment to reflect longer-term performance outcomes.

### Deferral Arrangements

Variable reward is subject to deferral for all senior managers and material risk takers depending on the variable reward plan and jurisdictional requirements:

Role grouping	Deferral arrangement
ELT	60% of variable reward is deferred for 4 years
Accountable Persons (other than NAB directors or ELT) <sup>(1)</sup>	40% of variable reward is deferred for 4 years
Senior managers and material risk takers (not in categories below)	25% of variable reward is deferred for 1 year
UK senior managers (including Financial Markets Specialist Incentive Plan senior managers) <sup>(2) (3)</sup>	40% of variable reward is deferred over 7 years, vesting equally from 3 to 7 years
UK risk managers (including Financial Markets Specialist Incentive Plan risk managers) <sup>(2) (3)</sup>	40% of variable reward is deferred over 5 years, vesting equally over the period
Other UK material risk takers (not in categories below) <sup>(2) (3)</sup>	40% of variable reward is deferred over 3 years, vesting equally over the period
Financial Markets Specialist Incentive Plan senior material risk takers <sup>(3)</sup>	50% of variable reward is deferred over 3 years, vesting equally over the period
Financial Markets Specialist Incentive Plan other material risk takers <sup>(3)</sup>	50% of variable reward is deferred over 2 years, vesting equally over the period

<sup>(1)</sup> Only applies if the employee's variable reward is \$50,000 or more.

<sup>(2)</sup> Only applies if the employee's variable reward is more than 33% of total remuneration and total remuneration is more than £500,000.

<sup>(3)</sup> For UK employees, if annual variable reward is £500,000 or more, then 60% of the incentive is deferred. Other deferral arrangements apply to employees not identified as senior managers or material risk takers.

Deferred variable reward is generally provided in either shares or performance rights.

For UK senior managers and material risk takers, half of any 'up-front' variable reward (the undeferred component of variable reward) is provided as cash, and the remaining half is provided as equity subject to a 12 month retention period. A 12 month retention period also applies to deferred variable reward after performance conditions have been satisfied. For UK risk managers the retention period is six months. The retained amounts are restricted from being sold, transferred or exercised by the employee during the retention period. No further performance conditions apply to retention equity.

The Board has absolute discretion to extend the deferral period for any reason, including if the Board has reason to believe that an individual is likely to have failed to meet threshold measures of conduct or comply with their accountability obligations.

Once deferred variable reward has vested or performance restrictions have ceased, no further adjustment (including as a result of malus) applies. Clawback may be applied to vested variable reward for Accountable Persons and in the UK for some employees.

### Forms of Variable Reward

The Group provides variable reward in the following forms:

Form	Use
Cash	<ul style="list-style-type: none"> <li>- All or a portion of the variable reward that relates to the current performance year</li> <li>- For deferred variable reward where an employee is entitled to receive deferred variable reward but has ceased employment with the Group prior to allocation of any shares or performance rights or for jurisdictional reasons</li> <li>- Retention and recognition awards</li> <li>- Commencement awards</li> </ul>
Shares	<ul style="list-style-type: none"> <li>- Deferred variable reward</li> <li>- General employee share offers</li> <li>- Retention and recognition awards</li> <li>- Commencement awards</li> </ul>
Performance rights (for jurisdictional reasons)	<ul style="list-style-type: none"> <li>- Deferred variable reward</li> <li>- Retention and recognition awards</li> <li>- Commencement awards</li> </ul>

Generally, the Group aims to provide deferred variable reward as equity to align the interests of employees and shareholders. Performance rights are generally provided where the Group does not consider it appropriate to pay dividends during deferral or restriction periods or for jurisdictional reasons. The mix of different forms of variable reward is dependent on the employee's role and external market relativities and practice.

All permanent employees are eligible to participate in a variable reward plan. Variable reward will generally be provided in a combination of cash and equity.

Retention, recognition and commencement awards are provided to an employee depending on circumstances. The quantum and form will vary depending on the specific circumstances at the time of the award.

## 10.2 Remuneration Quantitative Disclosures

Table 10.2A: Total Value of Remuneration Awards

The following table provides details of remuneration awarded to senior managers and material risk takers.

	12 months ended							
	30 Sep 18				30 Sep 17			
	Senior managers		Material risk takers		Senior managers		Material risk takers	
	Unrestricted	Deferred	Unrestricted	Deferred	Unrestricted	Deferred	Unrestricted	Deferred
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Fixed remuneration								
Cash-based <sup>(1)</sup>	18,505	-	17,172	-	17,404	-	13,845	-
Other <sup>(2)</sup>	694	-	1,043	-	687	-	817	-
Variable reward <sup>(3)</sup>								
Cash-based	7,626	-	14,849	-	8,209	-	13,024	-
Equity <sup>(4)</sup>	-	12,654	-	14,928	-	16,050	-	13,296

<sup>(1)</sup> Includes cash salary, cash allowances, short-term compensated absences (such as annual leave entitlements accrued but not taken during the year), motor vehicle benefits, parking, relocation costs and other benefits (including any related fringe benefits tax).

<sup>(2)</sup> Other fixed remuneration includes employer contributions to superannuation (in Australia and New Zealand) and National Insurance Contributions (in the UK) and long service leave entitlements accrued but not taken during the year. The long service leave entitlements are recognised as accruing on an annual basis subject to an actuarial calculation.

<sup>(3)</sup> 19 (2017: 22) senior managers and 39 (2017: 29) material risk takers received variable reward in respect of the relevant year. Some senior managers and material risk takers did not receive variable reward as they ceased employment with the Group or did not meet minimum performance requirements.

<sup>(4)</sup> Equity includes all shares and share-linked instruments. Amounts are determined based on the grant date fair value amortised on a straight line basis over the expected vesting period. The amount shown is the portion relating to the relevant year accounting expense accrual and includes amounts relating to the current year and prior year awards.

Table 10.2B: Deferred Reward

The following table provides details of deferred reward for senior managers and material risk takers, including the amount outstanding as at the reporting date and the amount paid and reductions during the year. Reductions are split into those that are implicit (such as due to fluctuations in the value of NAB shares and share-linked instruments) and explicit (including reductions as a result of forfeitures and lapses due to failure to meet performance hurdles, resignations or malus adjustments).

	30 Sep 18		30 Sep 17	
	Senior managers	Material risk takers	Senior managers	Material risk takers
	\$000	\$000	\$000	\$000
Outstanding deferred reward as at the reporting date <sup>(1)</sup>	48,242	30,457	45,562	22,174
of which: cash-based	245	253	-	-
of which: equity	47,997	30,204	45,562	22,174
Paid out during the year <sup>(2)</sup>	14,623	17,660	8,097	7,501
Reductions due to explicit adjustments during the year <sup>(3)</sup>	(10,728)	(3,211)	-	-
Reductions due to implicit adjustments during the year	(294)	(584)	(229)	(547)

<sup>(1)</sup> The value of deferred cash awards is the grant value and for deferred equity awards is the grant fair value. Outstanding deferred reward provided as shares and share-linked instruments is fully exposed to ex post explicit and/or implicit adjustments.

<sup>(2)</sup> Includes the value of vested awards using the closing share price of NAB shares on the vesting date.

<sup>(3)</sup> Calculated using the closing share price of NAB shares on the forfeiture or lapsing date.

**Table 10.2C: Other Remuneration**

The following table provides details of the commencement awards and termination payments for senior managers and material risk takers.

	12 months ended							
	30 Sep 18				30 Sep 17			
	Senior managers		Material risk takers		Senior managers		Material risk takers	
	No. of individuals	Total amount \$000	No. of individuals	Total amount \$000	No. of individuals	Total amount \$000	No. of individuals	Total amount \$000
Commencement awards <sup>(1)</sup>	-	-	5	5,113	1	2,796	1	1,301
Termination payments <sup>(2)</sup>	2	1,201	1	491	-	-	-	-

<sup>(1)</sup> The full value of the commencement awards provided.

<sup>(2)</sup> Termination payments are made in accordance with the relevant NAB Enterprise Agreement and/or the employee's employment agreement. Employees may also retain shares and performance rights in accordance with the relevant terms and conditions of each grant, which remain subject to the relevant performance hurdles and restriction periods. These arrangements are consistent with the Group's policy and practice in such circumstances.

### 10.3 London Branch Remuneration Quantitative Disclosures

The following quantitative disclosures relate to senior managers, risk managers and other material risk takers of the London branch only. They have been prepared in accordance with Article 450 of the European Union Capital Requirements Regulation for the year ended 30 September 2018. Amounts are presented in British pounds unless otherwise stated and have been rounded to the nearest thousand pounds (£000).

Disclosures in this section are in respect of individuals who meet the following definitions:

	<b>Roles</b>
Senior managers <sup>(1)</sup>	Includes senior management of the London branch and Group senior management who have significant management accountability for the London branch
Risk managers <sup>(1)</sup>	Includes managers of credit and/or market risk takers
Other material risk takers <sup>(1)</sup>	Includes employees performing significant influence functions, employees who have responsibility and accountability for activities that could have a material impact on London branch's risk profile, and employees in independent risk management, compliance or internal audit function roles

<sup>(1)</sup> As defined by the UK senior managers and certification regimes.

**Table 10.3A: Aggregate Remuneration**

	<b>12 months ended 30 Sep 18</b>		
	<b>Senior managers and other material risk takers</b>	<b>Risk managers</b>	<b>Total</b>
Number of material risk takers	39	14	53
Total remuneration (£000)	13,246	6,264	19,510

**Table 10.3B: Total Value of Remuneration Awards**

	<b>12 months ended 30 Sep 18</b>		
	<b>Senior managers and risk managers</b>	<b>Other material risk takers</b>	<b>Total</b>
Number of material risk takers	22	31	53
	<b>Senior managers and risk managers</b>	<b>Other material risk takers</b>	<b>Total</b>
	<b>£000</b>	<b>£000</b>	<b>£000</b>
Fixed remuneration	8,008	7,753	15,761
Variable reward (cash)	815	1,110	1,925
Variable reward (retained shares)	299	121	420
Deferred reward (equity) <sup>(1)</sup>	659	745	1,404
Deferred reward (cash) <sup>(1)</sup>	-	-	-
Total variable reward	1,773	1,976	3,749
<b>Total remuneration</b>	<b>9,781</b>	<b>9,729</b>	<b>19,510</b>

<sup>(1)</sup> The Group provides all deferred remuneration in NAB equity or cash.

No commencement awards, retention awards or termination payments were provided to senior managers, risk managers and other material risk takers during 2018.

In 2018 there was one individual remunerated more than EUR 1 million. This individual's total remuneration was between EUR 1 million and EUR 1.5 million (equivalent to between £897,580 and £1,346,370 converted using a rate of 1 Euro = £0.8976, consistent with the European Commission's currency converter for 30 September 2018). Total remuneration includes fixed remuneration, allowances and variable reward.

Table 10.3C: Deferred Reward

	Senior managers and risk managers	Other material risk takers	Total
	£000	£000	£000
Outstanding - vested as at 30 Sep 2018	424	129	553
Outstanding - unvested as at 30 Sep 2018	2,368	2,932	5,300
Awarded during 2018	1,221	1,356	2,577
Vested during 2018	1,011	1,428	2,439
Reductions during 2018 through performance adjustments	-	-	-

## Section 11

## Glossary

Term	Description
AASB	Australian Accounting Standards Board.
Additional regulatory specific provisions	That portion of collective provisions covering facilities where any assessment of probability of default or loss would give rise to a reasonable expectation that the facilities in question will need in the short term to be subject to a write-down or write-off, or assessment for impairment on an individual facility basis.
ADI	Authorised Deposit-taking Institution.
Additional Tier 1 capital	Additional Tier 1 capital comprises high quality components of capital that satisfy the following essential characteristics: (a) provide a permanent and unrestricted commitment of funds; (b) are freely available to absorb losses; (c) rank behind the claims of depositors and other more senior creditors in the event of winding up of the issuer; and (d) provide for fully discretionary capital distributions.
Advanced Measurement Approach (AMA)	The risk estimation process used for operational risk, combining internally developed risk estimation processes with an integrated risk management process, embedded within the business with loss event management.
ANZSIC	Australian and New Zealand Standard Industrial Classification.
APRA	Australian Prudential Regulation Authority.
APS	Prudential Standards issued by APRA applicable to ADIs.
Alternative Liquid Assets (ALA)	Alternative liquid assets are made available in jurisdictions where there is insufficient supply of HQLA in the domestic currency to meet the aggregate demand of banks with significant exposures in the domestic currency in the Liquidity Coverage Ratio (LCR) framework. The Committed Liquidity Facility (CLF) provided by the RBA to Australian banks is treated as an ALA in the LCR.
Back-testing	Back-testing refers to the process undertaken to monitor performance of the Group's risk models. Historical data is used to compare the actual outcomes to the expected outcomes. Theoretical (or hypothetical) back-testing refers to the process whereby the trading positions at the end of the preceding day are revalued using the end-of-day rates for that day and then again at the succeeding day's closing rates. The difference between the two mark-to-market values of the portfolio which represents the profit and loss that would have occurred had there been no transactions on the day, is compared with the VaR. VaR is also compared with the actual daily traded profit and loss as a cross-check of the reasonableness of the theoretical portfolio movement.
Basel Accord	The Basel regulatory framework (which includes Basel II, Basel 2.5 and Basel III) is the global benchmark for assessing banks' capital adequacy. The guidelines are aimed at promoting a more resilient banking system through the development of capital adequacy standards that are more accurately aligned with the individual risk profile of institutions, by offering greater flexibility for supervisors to recognise and encourage the use of more sophisticated risk management techniques.
BCBS	Basel Committee on Banking Supervision.
Board	Board of Directors of NAB.
BNZ	Bank of New Zealand.
Capital adequacy	Capital adequacy is the outcome of identifying and quantifying the major risks the Group is exposed to, and the capital that the Group determines as an appropriate level to hold for these risks, as well as its strategic and operational objectives, including its target credit rating.
Cash earnings	Cash earnings is defined as net profit attributable to owners of NAB from continuing operations, adjusted for the items NAB considers appropriate to better reflect the underlying performance of the Group. Cash earnings for the September 2018 financial year has been adjusted for the following: <ul style="list-style-type: none"> <li>- distributions</li> <li>- fair value and hedge ineffectiveness</li> <li>- amortisation of acquired intangible assets</li> <li>- MLC Wealth divestment transaction costs.</li> </ul>
Cash return on equity (cash ROE)	Cash earnings after tax expressed as a percentage of average equity (adjusted), calculated on a cash earnings basis.
Central Counterparty (CCP)	A clearing house which interposes itself, directly or indirectly, between counterparties to contracts traded in one or more financial markets, thereby insuring the future performance of open contracts.
Committed Liquidity Facility (CLF)	A facility provided by the RBA to commercial banks to assist them in meeting the Basel III liquidity requirements.
Common Equity Tier 1 (CET1) capital	The highest quality component of capital. It is subordinated to all other elements of funding, absorbs losses as and when they occur, has full flexibility of dividend payments and has no maturity date. It is predominately comprised of paid-up ordinary share capital, retained profits plus certain other items as defined in APS 111 <i>Capital Adequacy: Measurement of Capital</i> .
CET1 capital ratio	CET1 capital divided by RWA.
Corporate (including SME)	Corporate (including SME) consists of corporations, partnerships or proprietorships not elsewhere classified and includes non-banking entities held by banks.
Credit derivatives	Credit derivatives include single-name credit default and certain total rate of return swaps, cash funded credit linked notes and first-to-default and second-to-default credit derivative basket products. ADIs may also recognise many more complex credit derivatives that do not fall into the list above, that have been approved by APRA.
Credit derivative transactions	In relation to securitisation exposures, credit derivative transactions are those in which the credit risk of a pool of assets is transferred to the Group, usually through the use of credit default swaps.
Credit enhancements	In relation to securitisation exposures, a contractual arrangement in which an ADI or other entity provides some degree of protection against credit losses to other parties holding a securitisation exposure.
Credit Value Adjustment (CVA)	A capital charge to reflect potential mark-to-market losses due to counterparty migration risk for bilateral over-the-counter derivative contracts.
DCA	Delegated Commitment Authority.
D-SIB	Domestic Systemically Important Bank.
Default Fund	Clearing members' funded or unfunded contributions towards, or underwriting of, a CCP's mutualised loss sharing arrangements.
Derivative transactions	In relation to securitisation exposures, derivative transactions include interest rate and currency derivatives provided to securitisation vehicles, but do not include credit derivative transactions.
ELT	Executive leadership team.

Term	Description
Exposure at Default (EaD)	An estimate of the credit exposure amount an ADI may be exposed consequent to default of an obligor. EaD is presented net of eligible financial collateral.
Economic capital	Economic capital represents the Group's internal assessment of the amount of capital required to protect against potential unexpected future losses arising from its business activities, in line with its target credit rating.
Eligible Financial Collateral (EFC)	Under the standardised approach, EFC is the amount of cash collateral, netting and eligible bonds and equities. Under the IRB approach, EFC is limited to the collateral items detailed in APS 112 <i>Capital Adequacy: Standardised Approach to Credit Risk</i> . Recognition of eligible financial collateral is subject to the minimum conditions detailed in APS 112.
Extended Licensed Entity	The ADI itself and any APRA approved subsidiary entities assessed as effectively part of a single 'stand-alone' entity, as defined in APS 222 <i>Associations with Related Entities</i> .
Fair value	The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at measurement date.
G-SIB	Global Systemically Important Bank.
General Reserve for Credit Losses (GRCL)	An estimate of the reasonable and prudent expected credit losses over the remaining life of the portfolio and on non-defaulted assets; as set out under APS 220 <i>Credit Quality</i> . The GRCL is calculated as a collective provision for credit impairment, excluding securitisation and provision on default no loss assets. The difference between the GRCL and accounting collective provision is covered with an additional top-up, created through an appropriation of retained profits to a non-distributable reserve when the regulatory reserve is greater than the accounting provision. All collective provisions on defaulted or otherwise non-performing assets, regardless of expected loss, are reported as additional regulatory specific provisions.
Group	NAB and its controlled entities.
GRRMC	Group Risk Return Management Committee.
High Quality Liquid Assets (HQLA)	High quality liquid assets determined in accordance with APS 210 <i>Liquidity</i> . These assets include notes and coins, central bank reserves and highly rated marketable securities issued or guaranteed by central banks or governments.
Internal Capital Adequacy Assessment Process (ICAAP)	The mechanism developed and used by the Group to determine capital requirements as outlined under Basel III. It results in the Group identifying and assessing all risks to which it is exposed and allocating an appropriate level of capital to each.
Internal Model Approach (IMA)	The approach used in the assessment of traded market risk. The Group uses, under approval from APRA, the IMA to calculate general market risk for all transactions in the trading book other than those covered by the standardised approach.
Impaired facilities	Impaired facilities consist of: - Retail loans (excluding unsecured portfolio managed facilities) which are contractually past due 90 days with security insufficient to cover principal and arrears of interest revenue. - Non-retail loans which are contractually past due and / or there is sufficient doubt about the ultimate collectability of principal and interest. - Impaired off-balance sheet credit exposures where current circumstances indicate that losses may be incurred. - Unsecured portfolio managed facilities that are 180 days past due (if not written off).
IOSCO	International Organization of Securities Commissions.
IRB approach	The Advanced Internal Ratings Based approach is the process used to estimate credit risk through the use of internally developed models to assess potential credit losses using the outputs from the PD, LGD and EaD models.
IRRBB	Interest rate risk in the banking book.
Level 2 Group	NAB and the entities it controls excluding superannuation and funds management entities and securitisation special purpose vehicles to which assets have been transferred in accordance with the requirements for regulatory capital relief in APS 120 <i>Securitisation</i> .
Leverage ratio	A simple, non-risk based supplementary measure that uses exposures to supplement the RWA based capital requirements and is prepared in accordance with APS 110 <i>Capital Adequacy</i> .
Loss Given Default (LGD)	An estimate of the expected severity of loss for a credit exposure following a default event. Regulatory LGDs reflect a stressed economic condition at the time of default.
Liquidity Coverage Ratio (LCR)	A new measure announced as part of the Basel III liquidity reforms that came into force on 1 January 2015. The ratio measures the amount of high quality liquid assets to total net cash flows required to meet the Group's liquidity needs for a 30 day calendar liquidity stress scenario.
Liquidity facilities	In relation to securitisation exposures, a facility provided by an ADI to an SPV for the primary purpose of funding any timing mismatches between receipts of funds on underlying exposures and payments on securities issued by the SPV or to cover the inability of the SPV to roll-over securities due to market disruption.
Loan to value ratio (LVR)	The ratio between the loan and value of the security provided.
Masterscale	A consistent series of grades applied to credit exposures that allows the Group to place every credit exposure into a specific grade or range that represents the likelihood of a credit default. This allows comparison of customers and portfolios.
NAB	National Australia Bank Limited ABN 12 004 044 937.
Net Promoter Score (NPS)	Net Promoter Score measures the net likelihood of recommendation to others of the customer's main financial institution for retail or business banking. Net Promoter® and NPS® are registered trademarks and Net Promoter Score and Net Promoter System are trademarks of Bain & Company, Satmetrix Systems and Fred Reichheld.
Net Stable Funding Ratio (NSFR)	NSFR is a measure announced as part of the Basel III liquidity reforms that came into force on 1 January 2018. The ratio establishes a minimum acceptable amount of stable funding (the portion of those types and amounts of equity and liability financing expected to be reliable sources of funds) based on the liquidity characteristics of an ADI's assets and activities over a one-year horizon.
Net write-offs	Write-offs of loans and advances measured at amortised cost and fair value, net of recoveries.
Non-retail credit	Non-retail credit broadly refers to credit exposure to business customers. It excludes retail credit defined below.
Non-traded book	The investment in securities held by the Group through to maturity.
Past due facilities ≥ 90 days	Well-secured assets that are more than 90 days past due and portfolio-managed facilities that are not well secured and between 90 and 180 days past due.
Probability of Default (PD)	An estimate of the likelihood of a customer defaulting or not repaying their borrowings and other obligations in the next 12 months.
Point in Time (PiT)	Risk models that estimate the likelihood of default and resulting loss over a 12-month period having regard to the current economic conditions.
Qualifying revolving retail exposures	Revolving exposures to individuals less than \$0.1m, unsecured and unconditionally cancellable by the Group, including Australian retail credit cards.
RBA	Reserve Bank of Australia.



Term	Description
RBNZ	Reserve Bank of New Zealand.
Regulatory capital	The total capital held by the Group as a buffer against potential losses arising from the business the Group operates in. Unlike economic capital, it is calculated based on guidance and standards provided by the Group's regulators, including APRA. It is designed to support stability in the banking system and protect depositors.
Regulatory expected loss (EL)	A calculation of the estimated loss that may be experienced by the Group over the next 12 months. Regulatory EL calculations are based on the PD, LGD and EaD values of the portfolio at the time of the estimate which includes stressed LGDs for economic conditions. As such, regulatory EL is not an estimate of long-run average expected loss.
Resecuritisation	Resecuritisation exposures are securitisation exposures in which the risk associated with an underlying pool of exposures is tranching and at least one of the underlying exposures is a securitisation exposure. In addition, an exposure to one or more resecuritisation exposures is a resecuritisation exposure.
Retail credit	For the purposes of managing credit, two broad categories are used: retail credit and non-retail credit. This reflects the different approaches to the sales and ongoing management of credit and is consistent with the approach required under the Basel Accord. Retail credit refers to the credit provided to retail or personal customers. For the purposes of regulatory capital, retail credit is categorised into four groups: residential mortgages, credit cards (or qualifying revolving credit), retail SME and other.
Return on Total Allocated Equity (ROTAE)	A function of cash earnings, combined divisional RWA (and by capital adequacy for Wealth Management) and target regulatory capital ratios.
Risk appetite	Risk appetite defines the level of risk the Group is prepared to accept as part of its business. The resulting level of risk is a direct input into the Group's capital requirements.
Risk-weighted Assets (RWA)	A quantitative measure of risk required by the APRA risk-based capital adequacy framework, covering credit risk for on and off-balance sheet exposures, market risk, operational risk and interest rate risk in the banking book.
RMBS	Residential mortgage-backed securities.
Securities	In relation to securitisation exposures, debt securities issued by a securitisation vehicle.
Securitisation	Structured finance technique which involves pooling, packaging cash-flows and converting financial assets into securities that can be sold to investors.
SME	Small and medium sized enterprises.
Specific provision for credit impairment	The provision assessed on an individual basis in accordance with Australian Accounting Standard AASB 9 <i>Financial Instruments</i> .
Special Purpose Vehicle (SPV)	In relation to securitisation, a special purpose vehicle that purchases and holds, or otherwise holds directly in its name, the pool for the purpose of a securitisation. The SPV's acquisition of exposures held in the pool is typically funded by debt issued by the SPV, including through the issue of securities or units by the SPV.
Standardised approach	An alternative approach to the assessment of credit, operational and traded market risk whereby the ADI uses external rating agencies to assist in assessing credit risk and/or the application of specific values provided by regulators to determine RWA.
Stress testing	Stress testing refers to a technique whereby the Group's capital position is assessed against a number of different scenarios used to determine the movement on expected losses and subsequent impact on capital.
Through the cycle (TTC)	TTC within this document refers to risk models that estimate the likelihood of default and resulting loss over a 12-month period having regard to the impact of an economic downturn.
Tier 1 capital	Tier 1 capital comprises CET1 capital and instruments that meet the criteria for inclusion as Additional Tier 1 capital set out in APS 111 <i>Capital Adequacy: Measurement of Capital</i> .
Tier 1 capital ratio	Tier 1 capital divided by RWA.
Tier 2 capital	Tier 2 capital includes other components of capital that, to varying degrees, fall short of the quality of Tier 1 capital but nonetheless contribute to the overall strength of an ADI and its capacity to absorb losses.
Tier 2 capital ratio	Tier 2 capital divided by RWA.
Total capital	The sum of Tier 1 capital and Tier 2 capital.
Total capital ratio	Total capital divided by RWA.
Traded book	The Group's investment portfolio that is traded or exchanged in the market from time to time that reflects market opportunities.
Value at Risk (VaR)	A mathematical technique that uses statistical analysis of historical data to estimate the likelihood that a given portfolio's losses will exceed a certain amount.
Write-offs	A reduction in the carrying amount of loans and advances where there is no reasonable expectation of recovery of a portion or the entire exposure.

## Section 12

## Reference to APS 330 Tables

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