



Wednesday, 11 November 2020

ASX ANNOUNCEMENT

NAB 2020 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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The release of this announcement was authorised by Gary Lennon, Group Chief Financial Officer.

PILLAR 3 REPORT

as at 30 September 2020

Incorporating the requirements of APS 330

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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*, which requires disclosure of information to the market to contribute to the transparency of financial markets and to enhance market discipline. 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.

Pillar 1 Minimum capital requirement	Pillar 2 Supervisory review process	Pillar 3 Market discipline
Minimum requirements for the level and quality of capital	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 and liquidity.

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

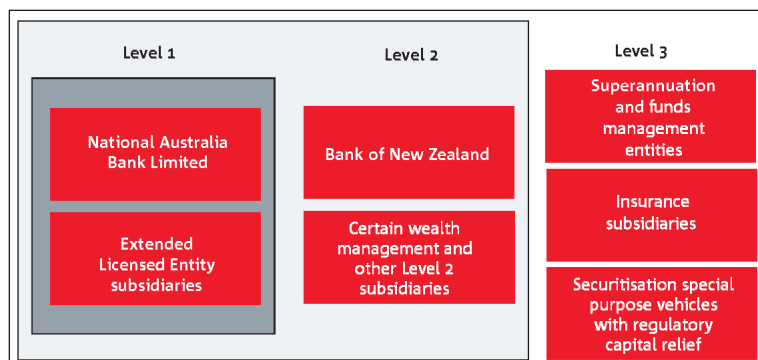
Capital Adequacy Methodologies

The Group uses the following approaches to measure capital adequacy as at 30 September 2020.

Credit Risk	Operational Risk	Non-traded Market Risk	Traded Market Risk
Advanced Internal Ratings-based Approach (IRB)	Advanced Measurement Approach (AMA)	Internal Model Approach (IMA)	Internal Model Approach (IMA) and standard method

Scope of Application

APRA measures the Group's 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, insurance subsidiaries 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 Bank of New Zealand (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.

On 31 August 2020, NAB announced that it had agreed to sell MLC Wealth, comprising its advice, platforms, superannuation & investments and asset management businesses, to IOOF Holdings Ltd (IOOF). The subsidiaries subject to this agreement consist of both Level 2 and Level 3 subsidiaries, which remain part of the Group until completion of the transaction.

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

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

- The major Australian banks, including NAB, have been subject to APRA's 'unquestionably strong' target benchmark capital ratios since January 2020. APRA has suspended these requirements in response to COVID-19 until 1 January 2023. In suspending these requirements, APRA has indicated that banks may need to utilise some of the current capital buffers to facilitate ongoing lending to the economy. APRA has committed that any rebuild of capital buffers, if required, will be done in an orderly manner.
- 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'. APRA has recently deferred the scheduled implementation of these prudential standards in Australia by one year to at least January 2023, consistent with the BCBS. The deferral supports ADIs in maintaining operations and supporting customers in response to COVID-19. APRA has reiterated its view that ADIs currently hold sufficient capital to meet the new requirements.
- In October 2019, APRA proposed changes to the treatment of equity investments in subsidiaries (including BNZ) for the purpose of calculating Level 1 regulatory capital, expected to be implemented from 1 January 2022.
- APRA has also proposed a minimum leverage ratio requirement of 3.5% for IRB ADIs and a revised leverage ratio exposure measurement methodology from 1 January 2023. The Group's leverage ratio as at 30 September 2020 of 5.84% (under current methodology) is disclosed in further detail in Table 4.4A *Leverage Ratio Disclosure Template*.

Increased Loss-absorbing Capacity for ADIs

In July 2019, APRA released its framework for the implementation of an Australian loss-absorbing capacity regime, requiring an increase in Total capital of 3% of risk-weighted assets (RWA) for Domestic Systemically Important Banks (D-SIBs) by 1 January 2024. APRA has maintained its overall target calibration of 4% to 5% of RWA, and will consult on alternative methods for raising the additional loss-absorbing capacity equal to 1% to 2% of RWA over the next three years.

Reserve Bank of New Zealand (RBNZ) Capital Review

In December 2019, the RBNZ finalised its review of the capital adequacy framework applying to registered banks incorporated in New Zealand. The RBNZ amendments to the amount of regulatory capital required of locally incorporated banks include:

- increases in credit RWA for banks that use the internal ratings-based approach due to an increase in the scalar, prescribed use of the standardised approach for banks and sovereign exposures and the introduction of an overall minimum standardised floor
- an increase in the Tier 1 capital requirement to 16% of RWA, and an increase in the Total capital requirement equal to 18% of RWA.

Due to significant uncertainties arising from the impacts of COVID-19, the RBNZ has delayed the start of the new capital requirements by one year to 1 July 2021. It is expected that the changes will be phased in over a seven-year period.

Dividends

In response to the impacts of COVID-19, the RBNZ and APRA have introduced restrictions on the payment of distributions:

- RBNZ has prohibited the payment of dividends on ordinary shares and the redemption of non-Common Equity Tier 1 (CET1) capital instruments.
- APRA has advised that it expects ADIs will retain at least half of their earnings for 2020. APRA has also confirmed that ADIs should utilise management buffers and stress testing to inform its capital management actions, and actively use capital management initiatives to at least partially offset any diminution in capital from distributions.

In each case, these regulatory restrictions will remain in place and apply until further notice.

Other Regulatory Changes

- The BCBS announced its revised market risk and Credit Value Adjustment (CVA) frameworks, which are due to come into effect from 1 January 2023 globally. In February 2018, APRA released its discussion paper on revisions to the capital framework, including market risk and CVA. APRA has recently deferred the implementation date for APS 116 *Capital Adequacy: Market Risk* to 1 January 2024.
- 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.
- The revised APS 222 Related Entity framework will take effect from 1 January 2022.
- Continued APRA focus on COVID-19 related impacts (such as loan deferrals) has resulted in the implementation of temporary changes to regulatory obligations and associated regulatory reporting requirements.

- APRA's updated requirements on the standardised approach for the calculation of operational risk takes affect from 1 January 2023. APRA has provided the option to banks using the advanced measurement approach to implement from 1 January 2022.
- Consultation by APRA to revise and strengthen the Interest Rate Risk in the Banking Book (IRRBB) framework continues, with implementation by 1 January 2023.

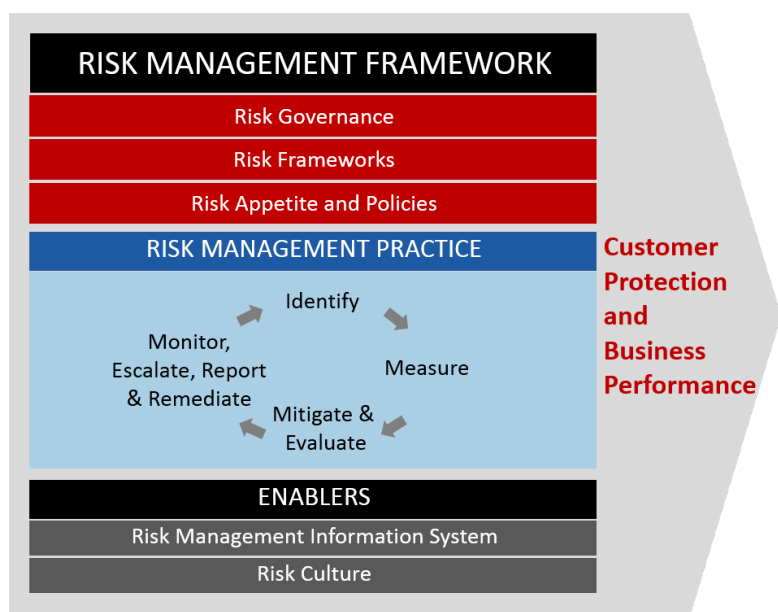
Section 3

Risk Governance and Management

Risk Management

Risk is an inherent part of the Group's business and the effective management of risk is a fundamental enabler of our strategic plan. The strategy for managing risk is to protect customers and enable sustained performance. The Group's risk management is in line with APRA Prudential Standard CPS 220 *Risk Management*.

The Group's Risk Management Framework is outlined in the Risk Management Strategy and illustrated below. The Risk Management Framework consists of systems, structures, policies, processes and people within the Group that manage our material risks. The Risk Management Framework is comprehensively reviewed every three years for appropriateness, effectiveness and adequacy by an operationally independent party. The Board is ultimately responsible for the Risk Management Framework and oversees its operation by management. In addition, directors and senior executives are held accountable for the parts of the Group's operations they manage or control, consistent with the Banking Executive Accountability Regime (BEAR).



The Group applies a 'Three Lines of Defence' operating model in relation to the management of risk. The overarching principle of the model is that risk management capability must be embedded within the business to be effective. The role of each line is:

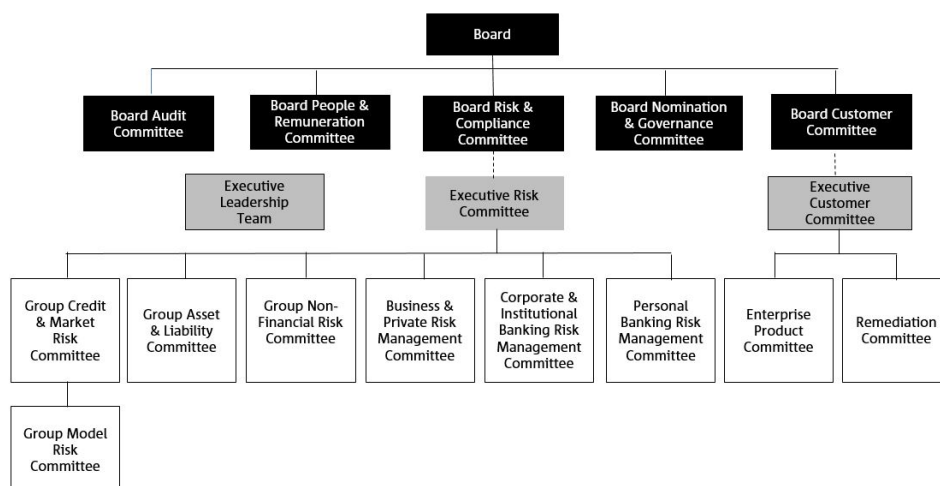
- First Line – Businesses own risks and obligations, and the controls and mitigation strategies that help manage them
- Second Line – A functionally segregated Risk function develops risk management frameworks, defines risk boundaries, provides objective review and challenge regarding the effectiveness of risk management within the first line businesses, and executes specific risk management activities where a functional segregation of duties and/or specific risk capability is required
- Third Line – An independent Internal Audit function reporting to the Board monitors the end-to-end effectiveness of risk management and compliance with the Risk Management Framework.

The Group undertakes annual strategic planning to maintain alignment of the Group's risk appetite and its business strategy. Strategic planning is informed by the ICAAP and Internal Liquidity Adequacy Assessment Process' (ILAAP) assessment of the Group's risk profile and the level of financial resources required to maintain suitable capital and liquidity for those risks. Key outputs of the strategic planning process are the Strategic Plan, Financial Plan, Funding Strategy, Capital Management Strategy and Risk Appetite Statement (RAS). Specific performance targets and risk boundaries are established for the Group, legal entities, and individual businesses. Stress testing and scenario analysis are used to inform risk appetite. These documents collectively form the Group's Business Plan, which is endorsed by management and approved by the Board.

Risk Governance

Risk governance refers to the formal structure used to support risk-based decision making and oversight across all our operations. The Board has established a number of committees, including the Board Risk and Compliance Committee and Board Customer Committee, to assist it in carrying out its responsibilities as specified through respective governance charters, which are available online at www.nab.com.au/about-us/corporate-governance. The Board, through the Board Risk and Compliance Committee, Board Customer Committee and executives, promotes awareness of a risk-based culture and supports the establishment by management of an acceptable balance between risk and return.

The Board delegates responsibility for the day-to-day management of the Group's operations to the Group Chief Executive Officer (Group CEO). The Group CEO delegates authority to members of the Executive Leadership Team. The delegations from the Board to the Group CEO, and the Group CEO to the Executive Leadership Team are reviewed on an annual basis. The Group CEO oversees enterprise-wide risk management through the Executive Risk Committee and its seven supporting sub-committees. Each sub-committee oversees and governs the effective management of risk which supports the relevant accountable executives. Through two sub-committees of the Executive Customer Committee, new and existing product offerings are evaluated and customer remediation activities are monitored to ensure transparent decision-making and consistent customer outcomes.



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 2020 Annual Financial Report.

Material risk category	Definition	Key measures	Governing policies and key committees
Strategic	The risk associated with the positioning of strategic objectives articulated in the strategic ambition.	- Measures as outlined in the strategic ambition	Governing policies <ul style="list-style-type: none"> - Group Organic Investment Policy - Group Inorganic Investment Policy Key committees <ul style="list-style-type: none"> - Executive Risk Committee
Financial risk categories			
Credit	The risk that a customer will fail to meet its obligations to the Group in accordance with agreed terms. It is a financial risk that the Group consciously elects to take through both the Group's lending activities (banking book) and markets and trading activities (trading book).	<ul style="list-style-type: none"> - Economic capital limits - Credit concentration limits, for example, single large exposures, industries, and countries - 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), RWA, and a range of more granular measures applicable to the nature of the credit risk (for example, Loan to Value Ratios, days past due, impairments and write-offs) 	Governing policies <ul style="list-style-type: none"> - Group Credit Policy - Group Model Risk Policy Key committees <ul style="list-style-type: none"> - Board Risk and Compliance Committee - Executive Risk Committee - Group Credit and Market Risk Committee - Group Model Risk Committee
Market	The risk of loss from trading activities. 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 may be due to changes in credit spreads, interest rates, foreign exchange rates, and commodity and equity prices. Traded market risk can be taken on and managed by the Markets division, while interest rate risk and foreign exchange risk also arise from bank-wide activity and are managed by Group Treasury.	<ul style="list-style-type: none"> - Economic capital limits - Earnings at risk limits - Trading desk limits and settings (for example, stop loss limits) - Globally diversified Value at Risk (VaR), stressed VaR and inner stress limits 	Governing policies <ul style="list-style-type: none"> - Group Traded Market Risk Policy - Interest Rate Risk in the Banking Book Policy - Group Foreign Exchange Risk in the Banking Book Policy - Funds Transfer Pricing Policy - Group Model Risk Policy Key committees <ul style="list-style-type: none"> - Board Risk and Compliance Committee - Executive Risk Committee - Group Credit and Market Risk Committee - Group Model Risk Committee

Risk Governance and Management

Material risk category	Definition	Key measures	Governing policies and key committees
Balance Sheet and Liquidity	The risk of failing to manage and monitor key banking book structural risks such as liquidity risk and capital risk.	<ul style="list-style-type: none"> - Liquidity Coverage Ratio (LCR) - Net Stable Funding Ratio (NSFR) - CET1 capital ratio - Customer Funding Index (CFI) 	<p>Governing policies</p> <ul style="list-style-type: none"> - Group Capital Risk Policy - Group Liquidity Risk Policy - Group Equity Risk in the Banking Book Policy - Third Party Securitisation Policy - Group Model Risk Policy <p>Key committees</p> <ul style="list-style-type: none"> - Board Risk and Compliance Committee - Executive Risk Committee - Group Asset and Liability Committee - Group Model Risk Committee
Non-financial risk categories			
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"> - Economic capital limits - Operational risk metrics which ensure the Group operates within Board approved limits and risk settings applicable to the management of operational risk, such as actual financial losses, customer complaints, control environment and technology incidents 	<p>Governing policies</p> <ul style="list-style-type: none"> - Operational Risk Management Framework - Group Operational Risk Management Policy - Information Risk Policy - Anti-Fraud Policy - Business Continuity Management Policy - Travel Security Policy - Physical Security Policy - Group Executive Protection Policy - Group Outsourcing Policy - Group Model Risk Policy <p>Key committees</p> <ul style="list-style-type: none"> - Board Risk and Compliance Committee - Executive Risk Committee - Group Non-Financial Risk Committee
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 that support sustainability and provide protections to our customers. ⁽¹⁾	<ul style="list-style-type: none"> - Compliance breach investigations - Compliance breach reporting - Timeliness of customer exits in managing financial crime risk exposure - Enhanced customer due diligence for new to bank high risk customers 	<p>Governing policies</p> <ul style="list-style-type: none"> - Compliance Obligation Management Policy - Regulatory Breach Management Policy - Conflicts of Interest Policy - Cross Border Policy - Customer Complaints Handling Policy - G20 Risk Mitigation Policy - Dodd Frank Act Policies - Group External Reporting Policy - Anti-Bribery and Corruption Policy - Anti-Fraud Policy - Anti-Money Laundering & Counter-Terrorism Financing Policy - Economic and Trade Sanctions Policy <p>Key committees</p> <ul style="list-style-type: none"> - Board Risk and Compliance Committee - Executive Risk Committee - Group Non-Financial Risk Committee
Conduct	The risk that any action of the Group, or those acting on behalf of the Group, will result in unfair outcomes for any of the Group's customers.	<ul style="list-style-type: none"> - Measures through risk appetite settings and key risk indicators 	<p>Governing policies</p> <ul style="list-style-type: none"> - Conduct Risk Framework - Code of Conduct - Customer Complaints Handling Policy <p>Key committees</p> <ul style="list-style-type: none"> - Board Risk and Compliance Committee - Executive Risk Committee - Product committees - Remediation committees
Regulatory	The risk of failing to identify or appropriately respond to changes in the regulatory environment or of damaging the Group's standing with its regulators as a result of the Group not meeting regulatory expectations.	<ul style="list-style-type: none"> - Risk limits set to align with the expectations of the Group's key regulators 	<p>Governing Policies</p> <ul style="list-style-type: none"> - Regulatory Engagement Procedure - Regulatory Change Procedure <p>Key Committees</p> <ul style="list-style-type: none"> - Executive Risk Committee - Group Non-Financial Risk Committee

⁽¹⁾ As a Group, responding effectively to those material risks with Environmental, Social and Governance (ESG) implications is important to maintaining our financial performance, reputation, long-term strategy and vision. Our approach to managing governance and risk associated with ESG issues, including human rights and climate-related risk, is set out in policies including Environmental Management Policy, Environmental Reporting and Offset Management Policy, Human Rights Policy, Procurement Policy and Offshoring and Outsourcing Policy. From 1 October 2020 Sustainability has been classified as its own material risk.

Section 4

Capital

4.1 Capital Adequacy

Capital Management Strategy

The Capital Management Strategy is focused on adequacy, efficiency and flexibility. The amount of capital that is held 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 capital outlook, potential risks, initiatives and distributions. 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.

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.

	Regulatory capital	Economic capital
Nature	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.
Calculation	Calculated under regulatory requirements and expressed as a percentage of RWA.	Internal risk-based models.
Risk types	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 on both a Level 1 and Level 2 basis. 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 and stress testing
- 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, RAS, the Group Strategic Plan and Financial 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 Executive Risk 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.

Balance Sheet and Liquidity Risk Management is independent of Group Treasury and is responsible for capital oversight. Balance Sheet and Liquidity Risk Management 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 Balance Sheet and Liquidity Risk Management, monitor the Group's capital position on a monthly basis and report to management and Board committees.

4.1 Capital Adequacy (continued)

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. A description of the credit risk asset classes is contained in Section 5.3 *Internal Ratings-based Portfolios*.

	As at	
	30 Sep 20	31 Mar 20
	\$m	\$m
Credit risk		
Subject to IRB approach		
Corporate (including Small and Medium Enterprises (SME))	132,922	135,362
Sovereign	2,143	1,489
Bank	8,856	10,120
Residential mortgage	106,269	108,108
Qualifying revolving retail	2,524	3,258
Retail SME	5,983	6,326
Other retail	2,281	3,002
Total IRB approach	260,978	267,665
Specialised lending	59,465	59,632
Subject to standardised approach		
Residential mortgage	1,296	1,359
Corporate	4,355	4,720
Other	418	440
Total standardised approach	6,069	6,519
Other		
Securitisation exposures	5,237	5,197
Credit value adjustment	12,703	15,596
Central counterparty default fund contribution guarantee	83	137
Other ⁽¹⁾	9,456	9,804
Total other	27,479	30,734
Total credit risk	353,991	364,550
Market risk	12,678	10,035
Operational risk	49,993	50,604
Interest rate risk in the banking book	8,485	7,477
Total RWA	425,147	432,666

⁽¹⁾ Other includes non-lending assets and RWA overlay adjustments for regulatory prescribed methodology requirements.

The following table provides RWA for the Level 1 Group.

	As at	
	30 Sep 20	31 Mar 20
	\$m	\$m
Total RWA	386,291	388,707

4.1 Capital Adequacy (continued)

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 2020 and for the three previous quarters

Capital ratios	As at	
	30 Sep 20	31 Mar 20
	%	%
Level 2 Common Equity Tier 1 capital ratio	11.47	10.39
Level 2 Tier 1 capital ratio	13.20	11.96
Level 2 Total capital ratio	16.62	14.61
Level 1 Common Equity Tier 1 capital ratio	11.50	10.41
Level 1 Tier 1 capital ratio	13.38	12.13
Level 1 Total capital ratio	17.01	14.93
Significant bank subsidiary ⁽¹⁾		
BNZ Common Equity Tier 1 capital ratio	11.85	11.16
BNZ Tier 1 capital ratio	13.17	12.46
BNZ Total capital ratio	14.91	14.11

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

Leverage ratio	As at			
	30 Sep 20	30 Jun 20	31 Mar 20	31 Dec 19
	\$m	\$m	\$m	\$m
Tier 1 capital	56,131	56,189	51,761	52,761
Total exposures	960,575	964,854	988,245	937,042
Leverage ratio (%)	5.84%	5.82%	5.24%	5.63%

4.2 Capital Structure

Regulatory capital is calculated in accordance with APS 111 *Capital Adequacy: Measurement of Capital*. 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	Total capital
CET1 capital 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. CET1 capital consists of the sum of paid-up ordinary share capital, retained profits plus certain other items as defined in APS 111.	CET1 capital plus Additional Tier 1 capital. Additional Tier 1 capital comprises high quality components of capital that satisfy the following essential characteristics: - provide a permanent and unrestricted commitment of funds - are freely available to absorb losses - rank behind the claims of depositors and other more senior creditors in the event of winding up of the issuer - provide for fully discretionary capital distributions.	Tier 1 capital plus Tier 2 capital. Tier 2 capital comprises 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.

Further details of Additional Tier 1 and Tier 2 securities are available online in the capital instruments section of the Group's website at <https://capital.nab.com.au/disclaimer-area/capital-instruments.phps>.

Restrictions and Major Impediments on the Transfer of Funds or Regulatory Capital within the Group

Prudential regulation of subsidiary entities and thin capitalisation rules

In response to the impacts of COVID-19, the RBNZ has prohibited the payment of dividends on BNZ's ordinary shares and the redemption of non-CET1 capital instruments before their final maturity date. As at 30 September 2020, BNZ has issued NZ\$900m of Additional Tier 1 capital and NZ\$500m of Tier 2 capital to entities within the Group.

In addition, the transfer of funds or regulatory capital within the Group will take into account tax legislation that impose interest deduction limitations based on prescribed minimum capital levels.

Intra-group exposure limits

Exposures to related entities are managed in accordance with the Conglomerate Group Aggregate Risk Exposure Policy and prudential limits prescribed by APRA in APS 222 *Associations with Related Entities*.

Table 4.2A: Regulatory Capital Structure

The table below provides the structure of regulatory capital for the Level 2 Group. A detailed breakdown as at 30 September 2020 is shown in Table 4.3A *Regulatory Capital Disclosure Template*.

	As at	
	30 Sep 20	31 Mar 20
	\$m	\$m
Common Equity Tier 1 capital before regulatory adjustments	59,148	56,240
Regulatory adjustments to Common Equity Tier 1 capital	(10,398)	(11,280)
Common Equity Tier 1 capital (CET1)	48,750	44,960
Additional Tier 1 capital before regulatory adjustments	7,401	6,801
Regulatory adjustments to Additional Tier 1 capital	(20)	-
Additional Tier 1 capital (AT1)	7,381	6,801
Tier 1 capital (T1 = CET1 + AT1)	56,131	51,761
Tier 2 capital before regulatory adjustments	14,627	11,542
Regulatory adjustments to Tier 2 capital	(93)	(100)
Tier 2 capital (T2)	14,534	11,442
Total capital (TC = T1 + T2)	70,665	63,203

4.3 Detailed Capital Disclosures

Table 4.3A: Regulatory Capital Disclosure Template

The capital ratios for the Level 2 Group and other regulatory capital information are presented in the following 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.

Explanation of how amounts in the template reconcile to the Level 2 Group balance sheet is contained in 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.

		As at 30 Sep 20
		\$m
Common Equity Tier 1 capital: instruments and reserves		
1	Directly issued qualifying ordinary shares (and equivalent for mutually-owned entities) capital	43,531
2	Retained earnings	15,524
3	Accumulated other comprehensive income (and other reserves)	93
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)	-
6	Common Equity Tier 1 capital before regulatory adjustments	59,148
Common Equity Tier 1 capital: regulatory adjustments		
7	Prudential valuation adjustments	1
8	Goodwill	2,664
9	Other intangibles other than mortgage-servicing rights (net of related deferred tax balance)	2,384
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability)	25
11	Cash flow hedge reserve	307
12	Shortfall of provisions to expected losses	94
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	(64)
15	Defined benefit superannuation plan assets (net of related tax liability)	31
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	-
APRA specific regulatory adjustments		
26	National specific regulatory adjustments (sum of rows 26a, 26b, 26c, 26d, 26e, 26f, 26g, 26h, 26i and 26j)	4,956
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 net fee income	668
26d	of which: equity investments in financial institutions not reported in rows 18, 19 and 23 (adjusted for intangible assets held by those entities)	934
26e	of which: deferred tax assets not reported in rows 10, 21 and 25	3,139
26f	of which: capitalised expenses	108
26g	of which: investments in commercial (non-financial) entities that are deducted under APRA prudential requirements	58
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	49
27	Regulatory adjustments applied to Common Equity Tier 1 due to insufficient Additional Tier 1 and Tier 2 to cover deductions	-
28	Total regulatory adjustments to Common Equity Tier 1	10,398
29	Common Equity Tier 1 capital (CET1)	48,750

4.3 Detailed Capital Disclosures (continued)

		As at 30 Sep 20
		\$m
Additional Tier 1 capital: instruments		
30	Directly issued qualifying Additional Tier 1 instruments	6,190
31	of which: classified as equity under applicable accounting standards	-
32	of which: classified as liabilities under applicable accounting standards	6,190
33	Directly issued capital instruments subject to phase out from Additional Tier 1	1,211
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 Additional Tier 1)	-
35	of which: instruments issued by subsidiaries subject to phase out	-
36	Additional Tier 1 capital before regulatory adjustments	7,401
Additional Tier 1 capital: regulatory adjustments		
37	Investments in own Additional Tier 1 instruments	20
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	-
43	Total regulatory adjustments to Additional Tier 1 capital	20
44	Additional Tier 1 capital (AT1)	7,381
45	Tier 1 capital (T1 = CET1 + AT1)	56,131
Tier 2 capital: instruments and provisions		
46	Directly issued qualifying Tier 2 instruments	11,388
47	Directly issued capital instruments subject to phase out from Tier 2	788
48	Tier 2 instruments (and CET1 and Additional Tier 1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)	393
49	of which: instruments issued by subsidiaries subject to phase out	-
50	Provisions ⁽¹⁾	2,058
51	Tier 2 capital before regulatory adjustments	14,627
Tier 2 capital: regulatory adjustments		
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)	18
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	18
56c	of which: other national specific regulatory adjustments not reported in rows 56a and 56b	-
57	Total regulatory adjustments to Tier 2 capital	93
58	Tier 2 capital (T2)	14,534
59	Total capital (TC = T1 + T2)	70,665
60	Total RWA based on APRA standards	425,147

⁽¹⁾ Provisions consists of surplus provisions on non-defaulted exposures subject to the IRB approach (\$1,983m) and the General Reserve for Credit Losses (GRCL) for exposures subject to the standardised approach (\$75m).

4.3 Detailed Capital Disclosures (continued)

		As at 30 Sep 20
		\$m
Capital ratios and buffers		
61	Common Equity Tier 1 (as a percentage of RWA)	11.47%
62	Tier 1 (as a percentage of RWA)	13.20%
63	Total capital (as a percentage of RWA)	16.62%
64	Buffer requirement (minimum CET1 requirement plus capital conservation buffer plus any countercyclical buffer requirements expressed as a percentage of RWA) ⁽¹⁾	8.01%
65	of which: capital conservation buffer requirement	3.50%
66	of which: ADI-specific countercyclical buffer requirements	0.01%
67	of which: Global Systemically Importable Bank (G-SIB) buffer requirement	n/a
68	Common Equity Tier 1 available to meet buffers (as a percentage of RWA)	11.47%
National minima (if different from Basel III)		
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
Amounts below the thresholds for deduction (not risk-weighted)⁽²⁾		
72	Non-significant investments in the capital of other financial entities	517
73	Significant investments in the ordinary shares of financial entities (adjusted for intangible assets held by those entities)	417
74	Mortgage servicing rights (net of related tax liability)	-
75	Deferred tax assets arising from temporary differences (net of related tax liability)	3,139
Applicable caps on the inclusion of provisions in Tier 2		
76	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	75
77	Cap on inclusion of provisions in Tier 2 under standardised approach	294
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	2,244
79	Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	1,983
Capital instruments subject to phase-out arrangements (applicable between 1 January 2018 and 1 January 2022)		
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 Additional Tier 1 instruments subject to phase out arrangements	1,211
83	Amount excluded from Additional Tier 1 due to cap (excess over cap after redemptions and maturities)	734
84	Current cap on Tier 2 instruments subject to phase out arrangements	1,124
85	Amount excluded from Tier 2 due to cap (excess over cap after redemptions and maturities)	-

⁽¹⁾ Comprises a minimum CET1 ratio of 4.5% per APS 110 Capital Adequacy paragraph 23(a), a capital conservation buffer of 2.5% of RWA, an additional capital buffer applicable to D-SIBs of 1% of RWA and a countercyclical capital buffer (refer to Table 4.3E: Countercyclical Capital Buffer).

⁽²⁾ Amounts below the thresholds for deduction under Basel III requirements are an APRA specific regulatory adjustment.

4.3 Detailed Capital Disclosures (continued)

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 2020. 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.

The template and reconciliation references are either directly to rows in Table 4.3A *Regulatory Capital Disclosure Template* or to reconciliations to the disclosure template in Table 4.3C *Reconciliation between the Level 2 Group Balance Sheet and Regulatory Disclosure Template*.

	Group balance sheet	Adjustments	Level 2 Group balance sheet	Disclosure template row / reconciliation table reference
	\$m	\$m	\$m	
Assets				
Cash and liquid assets	64,388	(2)	64,386	
Due from other banks	52,351	-	52,351	
Trading instruments	95,851	74	95,925	
Debt instruments	40,355	-	40,355	
Other financial assets	3,860	-	3,860	
Hedging derivatives	3,830	-	3,830	
Loans and advances	582,485	(2,044)	580,441	
of which: deferred net fee income	668	-	668	Row 26c
Due from customers on acceptances	1,477	-	1,477	
Deferred tax assets	3,647	-	3,647	Table C
Property, plant and equipment	2,374	-	2,374	
Due from controlled entities	-	109	109	
Investment in non-consolidated controlled entities	-	417	417	
Goodwill and other intangible assets	3,809	-	3,809	Table A
Other assets	10,659	(76)	10,583	
Assets held for sale	1,479	(477)	1,002	
Total assets	866,565	(1,999)	864,566	
Liabilities				
Due to other banks	50,556	-	50,556	
Trading instruments	30,021	-	30,021	
Other financial liabilities	29,971	-	29,971	
Hedging derivatives	2,255	-	2,255	
Deposits and other borrowings	546,176	210	546,386	
Current tax liabilities	192	13	205	
Provisions	3,820	-	3,820	
Due to controlled entities	-	281	281	
Bonds, notes and subordinated debt	126,384	(2,100)	124,284	
Other debt issues	6,191	-	6,191	
Deferred tax liabilities	25	-	25	
Other liabilities	9,460	(170)	9,290	
Liabilities directly associated with assets held for sale	221	(33)	188	
Total liabilities	805,272	(1,799)	803,473	
Net assets	61,293	(200)	61,093	
Equity				
Issued and paid-up ordinary share capital	43,531	-	43,531	Row 1
Other contributed equity	1,945	-	1,945	Table D
Contributed equity	45,476	-	45,476	
Foreign currency translation reserve	(38)	(6)	(44)	
Asset revaluation reserve	26	-	26	
Cost of hedging reserve	(396)	-	(396)	
Cash flow hedge reserve	307	-	307	Row 11
Equity-based compensation reserve	115	-	115	
Debt instruments at fair value through other comprehensive income reserve	77	-	77	
Equity instruments at fair value through other comprehensive income reserve	8	-	8	
Reserves	99	(6)	93	Row 3
Retained profits	15,717	(193)	15,524	Row 2
Total equity (parent entity interest)	61,292	(199)	61,093	
Non-controlling interest in controlled entities	1	(1)	-	
Total equity	61,293	(200)	61,093	

4.3 Detailed Capital Disclosures (continued)

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

	As at 30 Sep 20 \$m	Disclosure template row
Table A		
Goodwill and other intangible assets	3,809	
Goodwill and other intangible assets included in assets held for sale	827	
Associated net deferred tax assets	412	
Total	5,048	
<i>which comprises:</i>		
Goodwill	2,664	Row 8
Other intangibles other than mortgage-servicing rights (net of related tax)	2,384	Row 9

	As at 30 Sep 20 \$m	Disclosure template row
Table B		
Non-defaulted expected loss	2,615	
<i>Less</i>		
Collective provision for credit impairment	4,934	
<i>Add</i>		
Standardised approach general reserve for credit losses	75	Row 50, 76
IRB approach surplus provisions on non-defaulted exposures (after application of cap)	1,983	Row 50, 78, 79
IRB approach surplus provisions above the cap	261	Row 78
Non-defaulted: shortfall of provisions to expected losses	-	
Defaulted expected loss	1,691	
<i>Less</i>		
Individual provision for credit impairment subject to the IRB approach ⁽¹⁾	828	
Partial write-offs	167	
Collective provision for credit impairment for defaulted exposures subject to the IRB approach	602	
Defaulted: shortfall of provisions to expected loss	94	
Gross deduction of shortfall of provisions to expected losses	94	Row 12

⁽¹⁾ Individual provision for credit impairment subject to the standardised approach amounts to \$12m.

	As at 30 Sep 20 \$m	Disclosure template row
Table C		
Deferred tax assets	3,647	
Deferred tax liabilities	(25)	
Deferred tax assets included in assets held for sale	74	
<i>Less</i>		
Deferred tax assets that rely on future profitability	25	Row 10
Unrealised revaluation on funding vehicles	294	
Net deferred tax assets included in other regulatory adjustments or associated with reserves ineligible for inclusion in regulatory capital	263	
<i>Add</i>		
Impact of calculating the deduction on a jurisdictional basis	25	
Deferred tax assets APRA specific regulatory adjustment	3,139	Row 26e, 75

	As at 30 Sep 20 \$m	Disclosure template row
Table D		
Face value of NAB Convertible Preference Shares II	1,717	
Face value of NAB Capital Notes II	1,499	
Face value of NAB Capital Notes III	1,874	
Face value of NAB Wholesale Capital Notes	500	
Face value of NAB Wholesale Capital Notes 2	600	
Directly issued qualifying Additional Tier 1 instruments classified as liabilities	6,190	Row 32
Directly issued qualifying Additional Tier 1 instruments classified as equities	-	Row 31
Directly issued qualifying Additional Tier 1 instruments	6,190	Row 30
National Income Securities	1,945	
Directly issued Additional Tier 1 instruments subject to phase out	1,945	
<i>which comprises:</i>		
Amount excluded from Additional Tier 1 due to cap (excess over cap after redemptions and maturities)	734	Row 83
Current cap on Additional Tier 1 instruments subject to phase out arrangements	1,211	Row 33, 82

4.3 Detailed Capital Disclosures (continued)

	As at 30 Sep 20 \$m	Disclosure template row
Table E		
Subordinated medium term notes	11,388	
Directly issued qualifying Tier 2 instruments	11,388	Row 46
Subordinated medium term notes	40	
Perpetual floating rate notes	14	
Additional Tier 1 instruments in excess of Additional Tier 1 cap	734	Row 83
Directly issued Tier 2 instruments subject to phase out	788	Row 47

	As at 30 Sep 20 \$m	Disclosure template row
Table F		
Subordinated notes issued by BNZ	393	
Tier 2 instruments issued by subsidiaries and held by third parties (amount allowed in Tier 2 capital)	393	Row 48

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

The following table provides details of entities included in the accounting scope of consolidation and excluded from the regulatory scope of consolidation.

Entity name	Principal activity	As at 30 Sep 20	
		Total assets \$m	Total liabilities \$m
Antares Capital Partners Limited	Investment	20	4
BNZ Life Insurance Limited	Insurance	121	20
MLC Asset Management Proprietary Limited	Funds Manager	33	8
MLC Asset Management Services Limited	Investment	35	-
MLC Investments Limited	Investment	157	74
NAB Trust Services Limited	Trustee	11	1
National Australia Managers Limited	Funds Manager	2	-
National RMBS Trust 2018-1	Securitisation	1,040	1,042
National RMBS Trust 2018-2	Securitisation	1,066	1,068
Navigator Australia Limited	Investment	39	14
NULIS Nominees (Australia) Limited	Superannuation	392	29
Orchard Street Investment Management LLP	Funds Manager	7	1
Presima Inc.	Funds Manager	8	3

4.3 Detailed Capital Disclosures (continued)

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 RWA. 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 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 20			
	Countercyclical capital buffer %	Private sector credit exposure \$m	RWA \$m	ADI-specific buffer %
Hong Kong	1.00	4,450	1,695	0.005
Norway	1.00	299	131	0.001
Other	-	904,877	325,736	0.000
Total	n/a	909,626	327,562	0.006

Country	As at 31 Mar 20			
	Countercyclical capital buffer %	Private sector credit exposure \$m	RWA \$m	ADI-specific buffer %
Hong Kong	1.00	5,839	1,984	0.006
Ireland	1.00	5,828	648	0.002
Other	-	947,874	337,942	0.000
Total	n/a	959,541	340,574	0.008

4.4 Leverage Ratio

The leverage ratio is a non-risk based measure that uses exposures to supplement the RWA based capital requirements. It is calculated in accordance with APS 110 (Attachment D). 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.

The leverage ratio calculation is presented in the disclosure template below. The leverage ratio increased from 5.24% at 31 March 2020, to 5.84% at 30 September 2020. The increase was due to an increase in Tier 1 capital of \$4 billion, combined with a decrease in total exposures of \$28 billion.

The increase in Tier 1 capital was mainly due to a \$4.25 billion equity raise, combined with a \$600 million wholesale Additional Tier 1 capital issuance.

The decrease in total exposures was primarily driven by a decline in on-balance sheet exposures of \$32 billion, mainly related to a decrease in loans and advances and amounts due from other banks of \$19 billion and \$12 billion respectively. A decline in derivative exposures of \$11 billion further contributed to the decrease in total exposures, which was partially offset by an increase in securities financing transactions of \$14 billion.

Table 4.4A: Leverage Ratio Disclosure Template

		As at	
		30 Sep 20	31 Mar 20
		\$m	\$m
On-balance sheet exposures			
1	On-balance sheet items (excluding derivatives and securities financing transactions (SFTs), but including collateral)	743,244	775,718
2	(Asset amounts deducted in determining Tier 1 capital)	(10,067)	(9,674)
3	Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of rows 1 and 2)	733,177	766,044
Derivative exposures⁽¹⁾			
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	11,664	19,609
5	Add-on amounts for potential future credit exposure (PFCE) associated with all derivatives transactions	17,755	20,998
6	Gross-up for derivatives collateral provided where not included in on-balance sheet items	3,383	2,469
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(4,618)	(3,422)
8	(Exempted central counterparty (CCP) leg of client-cleared trade exposures)	-	-
9	Adjusted effective notional amount of written credit derivatives	4,878	4,119
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(4,190)	(3,413)
11	Total derivative exposures (sum of rows 4 to 10)	28,872	40,360
Securities financing transaction exposures			
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	100,234	102,747
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(13,731)	(26,138)
14	Counterparty Credit Risk (CCR) exposure for SFT assets	8,620	4,870
15	Agent transaction exposures	-	-
16	Total securities financing transaction exposures (sum of rows 12 to 15)	95,123	81,479
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	201,593	191,485
18	(Adjustments for conversion to credit equivalent amounts)	(98,190)	(91,123)
19	Other off-balance sheet exposures (sum of rows 17 and 18)	103,403	100,362
Capital and total exposures			
20	Tier 1 capital	56,131	51,761
21	Total exposures (sum of rows 3, 11, 16 and 19)	960,575	988,245
Leverage ratio			
22	Leverage ratio	5.84%	5.24%

⁽¹⁾ Derivative exposures under the current exposure method.

4.4 Leverage Ratio (continued)

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

Items		As at	
		30 Sep 20	31 Mar 20
		\$m	\$m
1	Total consolidated assets as per published financial statements	866,565	927,628
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(1,999)	(2,487)
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	(5,947)	(32,454)
5	Adjustment for SFTs (i.e. repos and similar secured lending)	8,620	4,870
6	Adjustment for off-balance sheet exposures (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	103,403	100,362
7	Other adjustments	(10,067)	(9,674)
8	Leverage ratio exposure	960,575	988,245

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:

- shape and inform the future credit risk portfolio and Group's 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.

Governance

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

The Executive Risk Committee and its subcommittees oversee the Group's credit risk appetite, principles, policies, models and systems for the management of credit risk. Internal risk committees oversee implementation of these disciplines at a divisional level.

The Board Risk and Compliance 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 current and potential future 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 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.

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. 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 Credit Assurance function. This function independently reviews and reports on asset quality 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 Chief Risk Officer receives 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 detailed analysis of concentration risk, large credit approvals and updates on defaulted counterparties. Key reports are provided to internal committees and the Board Risk and Compliance Committee.

5.1 General Disclosures (continued)

Periodically the Board Risk and Compliance Committee and the Executive Risk Committee are provided with portfolio and industry reviews.

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 past due with insufficient security to cover principal and interest
- 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.

For eligible COVID-19 payment deferrals granted in respect of otherwise performing loans, the counting of days past due is stopped when the repayment deferral is granted in accordance with APRA guidance.

Creation of Provisions, the General Reserve for Credit Losses and Write-offs

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 Australian Accounting Standard 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 judgements and reasonable estimates in line with the requirements of AASB 9.

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

General Reserve for Credit Losses (GRCL)

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 GRCL is calculated as a collective provision for credit impairment, excluding securitisation exposures and provisions for facilities in default but for which no loss is expected (which are reported as additional regulatory specific provisions). The GRCL represents an appropriation of retained profits to non-distributable reserves when the regulatory reserve is greater than the accounting provision.

Write-offs

Where there is no reasonable expectation of recovery of a portion or the entire value of an exposure, a write-off is reflected 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 throughout this section represents credit risk exposures net of offsets for eligible financial collateral.

5.1 General Disclosures (continued)

Table 5.1A: Credit Risk Exposures Summary

The following table provides information on credit exposures and asset quality.

Exposure type	As at 30 Sep 20					6 months ended 30 Sep 20 Net write-offs
	Total exposure (EaD)	Risk-weighted assets (RWA)	Regulatory expected loss	Impaired facilities	Specific provision for credit impairment	
	\$m	\$m	\$m	\$m	\$m	\$m
Subject to IRB approach						
Corporate (including SME)	266,121	132,922	1,697	1,228	562	215
Sovereign	94,173	2,143	4	-	-	-
Bank	34,982	8,856	11	-	-	-
Residential mortgage	386,773	106,269	1,044	314	110	23
Qualifying revolving retail	9,393	2,524	135	-	-	63
Retail SME	17,052	5,983	186	86	58	17
Other retail	3,228	2,281	116	4	3	35
Total IRB approach	811,722	260,978	3,193	1,632	733	353
Specialised lending	66,618	59,465	1,113	221	95	10
Subject to standardised approach						
Residential mortgage	1,706	1,296	-	11	4	-
Corporate	11,054	4,355	-	2	8	1
Other	1,046	418	-	-	-	-
Total standardised approach	13,806	6,069	-	13	12	1
Total	892,146	326,512	4,306	1,866	840	364

Exposure type	As at 31 Mar 20					6 months ended 31 Mar 20 Net write-offs
	Total exposure (EaD)	Risk-weighted assets (RWA)	Regulatory expected loss	Impaired facilities	Specific provision for credit impairment	
	\$m	\$m	\$m	\$m	\$m	\$m
Subject to IRB approach						
Corporate (including SME)	282,988	135,362	1,635	1,384	574	94
Sovereign ⁽¹⁾	85,663	1,489	2	-	-	-
Bank	43,666	10,120	13	-	-	(2)
Residential mortgage	388,918	108,108	1,121	371	120	35
Qualifying revolving retail	10,182	3,258	202	-	-	67
Retail SME	17,215	6,326	194	89	55	22
Other retail	3,823	3,002	147	4	2	47
Total IRB approach	832,455	267,665	3,314	1,848	751	263
Specialised lending	68,209	59,632	917	176	64	2
Subject to standardised approach						
Residential mortgage	1,808	1,359	-	11	4	-
Corporate	11,074	4,720	-	2	8	2
Other	989	440	-	-	-	-
Total standardised approach	13,871	6,519	-	13	12	2
Total	914,535	333,816	4,231	2,037	827	267

⁽¹⁾ Sovereign exposure has been restated from that previously disclosed (\$72,519m) to include the exchange settlement account with the Reserve Bank of Australia (RBA).

5.1 General Disclosures (continued)

Table 5.1B: Total and Average Credit Risk Exposures

The following table provides a breakdown of credit risk exposures between on and off-balance sheet. The table also includes average credit risk exposure, which is the simple average of the credit risk exposure at the beginning and end of the reporting period.

As at 30 Sep 20					6 months ended 30 Sep 20
Exposure type	On-balance sheet \$m	Non-market related off-balance sheet \$m	Market related off-balance sheet \$m	Total exposure \$m	Average total exposure \$m
Subject to IRB approach					
Corporate (including SME)	159,620	83,412	23,089	266,121	274,555
Sovereign	79,999	817	13,357	94,173	89,918
Bank	22,562	1,604	10,816	34,982	39,324
Residential mortgage	336,540	50,233	-	386,773	387,846
Qualifying revolving retail	3,957	5,436	-	9,393	9,788
Retail SME	12,400	4,652	-	17,052	17,134
Other retail	2,141	1,087	-	3,228	3,525
Total IRB approach	617,219	147,241	47,262	811,722	822,090
Specialised lending	56,175	8,538	1,905	66,618	67,413
Subject to standardised approach					
Residential mortgage	1,589	117	-	1,706	1,757
Corporate	4,900	690	5,464	11,054	11,065
Other	1,044	2	-	1,046	1,017
Total standardised approach	7,533	809	5,464	13,806	13,839
Total exposure (EaD)	680,927	156,588	54,631	892,146	903,342

As at 31 Mar 20					6 months ended 31 Mar 20
Exposure type	On-balance sheet \$m	Non-market related off-balance sheet \$m	Market related off-balance sheet \$m	Total exposure \$m	Average total exposure \$m
Subject to IRB approach					
Corporate (including SME)	170,290	78,359	34,339	282,988	272,488
Sovereign ⁽¹⁾	78,559	753	6,351	85,663	73,164
Bank	30,034	2,134	11,498	43,666	41,499
Residential mortgage	340,698	48,220	-	388,918	387,468
Qualifying revolving retail	4,917	5,265	-	10,182	10,361
Retail SME	12,873	4,342	-	17,215	17,398
Other retail	2,685	1,138	-	3,823	3,938
Total IRB approach	640,056	140,211	52,188	832,455	806,316
Specialised lending	57,863	8,422	1,924	68,209	67,360
Subject to standardised approach					
Residential mortgage	1,695	113	-	1,808	1,929
Corporate	5,159	579	5,336	11,074	11,960
Other	988	1	-	989	1,055
Total standardised approach	7,842	693	5,336	13,871	14,944
Total exposure (EaD)	705,761	149,326	59,448	914,535	888,620

⁽¹⁾ On-balance sheet sovereign exposure has been restated from that previously disclosed (\$65,415m) to include the exchange settlement account with the RBA. Consequently, average total exposure has also been restated.

5.1 General Disclosures (continued)

Table 5.1C: Credit Risk Exposures by Geography

The following table provides the credit risk exposures by major geographical area, based on the booking office where the exposure was transacted.

Exposure type	As at 30 Sep 20			Total exposure
	Australia	New Zealand	Asia, Europe and Americas	
	\$m	\$m	\$m	\$m
Subject to IRB approach				
Corporate (including SME)	179,170	41,578	45,373	266,121
Sovereign	71,693	8,956	13,524	94,173
Bank	20,474	5,580	8,928	34,982
Residential mortgage	341,549	45,224	-	386,773
Qualifying revolving retail	9,393	-	-	9,393
Retail SME	15,280	1,772	-	17,052
Other retail	1,441	1,787	-	3,228
Total IRB approach	639,000	104,897	67,825	811,722
Specialised lending	57,299	7,537	1,782	66,618
Subject to standardised approach				
Residential mortgage	1,651	12	43	1,706
Corporate	9,756	610	688	11,054
Other	1,046	-	-	1,046
Total standardised approach	12,453	622	731	13,806
Total exposure (EaD)	708,752	113,056	70,338	892,146

Exposure type	As at 31 Mar 20			Total exposure
	Australia	New Zealand	Asia, Europe and Americas	
	\$m	\$m	\$m	\$m
Subject to IRB approach				
Corporate (including SME)	185,346	45,919	51,723	282,988
Sovereign ⁽¹⁾	65,087	8,228	12,348	85,663
Bank	24,340	6,993	12,333	43,666
Residential mortgage	342,169	46,749	-	388,918
Qualifying revolving retail	10,182	-	-	10,182
Retail SME	15,300	1,915	-	17,215
Other retail	1,723	2,100	-	3,823
Total IRB approach	644,147	111,904	76,404	832,455
Specialised lending	57,814	8,349	2,046	68,209
Subject to standardised approach				
Residential mortgage	1,741	13	54	1,808
Corporate	9,421	742	911	11,074
Other	989	-	-	989
Total standardised approach	12,151	755	965	13,871
Total exposures (EaD)	714,112	121,008	79,415	914,535

⁽¹⁾ Sovereign exposure for Australia has been restated from that previously disclosed (\$51,943m) to include the exchange settlement account with the RBA.

5.1 General Disclosures (continued)

Table 5.1D: Credit Risk Exposures by Industry

The following table provides credit risk exposures by major industry type. Industry classifications follow ANZSIC Level 1 classifications. Exposures are disclosed based on the counterparty to which the Group is exposed to credit risk, including guarantors and derivative counterparties.

As at 30 Sep 20															
	Accommodation and hospitality	Agriculture, forestry, fishing and mining	Business services and property services	Commercial property	Construction	Finance and insurance	Government and public authorities	Manufacturing	Personal	Residential mortgages	Retail and wholesale trade	Transport and storage	Utilities	Other ⁽¹⁾	Total
Exposure type	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Subject to IRB approach															
Corporate (including SME)	9,089	51,838	20,332	12,118	9,088	59,100	-	18,380	77	-	27,342	25,970	12,091	20,696	266,121
Sovereign	-	-	-	-	-	32,210	61,786	-	-	-	-	-	-	177	94,173
Bank	-	-	-	-	-	31,013	3,969	-	-	-	-	-	-	-	34,982
Residential mortgage	-	-	-	-	-	-	-	-	-	386,773	-	-	-	-	386,773
Qualifying revolving retail	-	-	-	-	-	-	-	-	9,393	-	-	-	-	-	9,393
Retail SME	810	3,793	2,458	344	2,093	1,112	-	1,079	13	-	2,671	908	39	1,732	17,052
Other retail	-	-	-	-	-	-	-	-	3,228	-	-	-	-	-	3,228
Total IRB approach	9,899	55,631	22,790	12,462	11,181	123,435	65,755	19,459	12,711	386,773	30,013	26,878	12,130	22,605	811,722
Specialised lending	145	1,281	104	60,582	383	6	-	-	4	-	-	1,194	2,550	369	66,618
Subject to standardised approach															
Residential mortgage	-	-	-	-	-	-	-	-	-	1,706	-	-	-	-	1,706
Corporate	5	75	363	18	56	6,888	-	254	11	82	533	130	5	2,634	11,054
Other	-	-	-	-	-	-	-	-	984	17	-	-	-	45	1,046
Total standardised approach	5	75	363	18	56	6,888	-	254	995	1,805	533	130	5	2,679	13,806
Total exposure (EaD)	10,049	56,987	23,257	73,062	11,620	130,329	65,755	19,713	13,710	388,578	30,546	28,202	14,685	25,653	892,146

⁽¹⁾ Other includes health and community services, and education.

5.1 General Disclosures (continued)

As at 31 Mar 20															
	Accommodation and hospitality	Agriculture, forestry, fishing and mining	Business services and property services	Commercial property	Construction	Finance and insurance	Government and public authorities	Manufacturing	Personal	Residential mortgages	Retail and wholesale trade	Transport and storage	Utilities	Other	Total
Exposure type	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Subject to IRB approach															
Corporate (including SME)	9,227	53,952	21,671	12,500	8,931	70,227	-	20,035	84	-	28,840	24,996	12,395	20,130	282,988
Sovereign ⁽¹⁾	-	-	-	-	-	31,484	54,022	-	-	-	-	-	-	157	85,663
Bank	-	-	-	-	-	39,895	3,771	-	-	-	-	-	-	-	43,666
Residential mortgage	-	-	-	-	-	-	-	-	-	388,918	-	-	-	-	388,918
Qualifying revolving retail	-	-	-	-	-	-	-	-	10,182	-	-	-	-	-	10,182
Retail SME	833	3,866	2,431	377	2,089	1,146	-	1,103	17	-	2,696	920	39	1,698	17,215
Other retail	-	-	-	-	-	-	-	-	3,823	-	-	-	-	-	3,823
Total IRB approach	10,060	57,818	24,102	12,877	11,020	142,752	57,793	21,138	14,106	388,918	31,536	25,916	12,434	21,985	832,455
Specialised lending	159	1,107	104	61,432	639	6	-	-	5	-	-	1,498	2,888	371	68,209
Subject to standardised approach															
Residential mortgage	-	-	-	-	-	-	-	-	-	1,808	-	-	-	-	1,808
Corporate	3	76	442	20	79	6,614	-	326	18	111	695	160	2	2,528	11,074
Other	-	-	-	-	-	-	-	-	939	18	-	-	-	32	989
Total standardised approach	3	76	442	20	79	6,614	-	326	957	1,937	695	160	2	2,560	13,871
Total exposure (EaD)	10,222	59,001	24,648	74,329	11,738	149,372	57,793	21,464	15,068	390,855	32,231	27,574	15,324	24,916	914,535

⁽¹⁾ Sovereign exposure for finance and insurance has been restated from that previously disclosed (\$18,340m) to include the exchange settlement account with the RBA.

5.1 General Disclosures (continued)

Table 5.1E: Credit Risk Exposures by Maturity

The following table provides a breakdown of credit risk exposures by residual contractual maturity.

Overdraft and other similar revolving facilities are allocated to the maturity bucket that most appropriately captures the maturity characteristics of the product. No specified maturity includes exposures related to credit cards, on demand facilities and guarantees with no fixed maturity date.

The allocation of exposures to maturity buckets for derivatives subject to an International Swaps and Derivatives Association (ISDA) netting agreement has been revised, and the 31 March 2020 comparatives have been restated for comparability. In prior periods, maturity was reported based on the longest dated derivative within the netting group, whereas maturity is now reported based on individual contract maturity.

Exposure type	As at 30 Sep 20				Total exposure \$m
	<12 months \$m	1 – 5 years \$m	>5 years \$m	No specified maturity \$m	
Subject to IRB approach					
Corporate (including SME)	95,281	136,514	26,251	8,075	266,121
Sovereign	31,410	20,630	41,980	153	94,173
Bank	16,250	15,473	3,253	6	34,982
Residential mortgage	26,509	6,177	354,087	-	386,773
Qualifying revolving retail	-	-	-	9,393	9,393
Retail SME	6,943	7,028	2,479	602	17,052
Other retail	219	945	301	1,763	3,228
Total IRB approach	176,612	186,767	428,351	19,992	811,722
Specialised lending	31,383	31,196	3,751	288	66,618
Subject to standardised approach					
Residential mortgage	97	42	1,567	-	1,706
Corporate	5,495	2,787	2,618	154	11,054
Other	916	128	2	-	1,046
Total standardised approach	6,508	2,957	4,187	154	13,806
Total exposure (EaD)	214,503	220,920	436,289	20,434	892,146

Exposure type	As at 31 Mar 20				Total exposure \$m
	<12 months \$m	1 – 5 years \$m	>5 years \$m	No specified maturity \$m	
Subject to IRB approach					
Corporate (including SME)	102,278	141,244	31,330	8,136	282,988
Sovereign ⁽¹⁾	37,713	11,067	36,752	131	85,663
Bank	21,704	18,959	2,957	46	43,666
Residential mortgage	28,071	6,128	354,719	-	388,918
Qualifying revolving retail	-	-	-	10,182	10,182
Retail SME	6,836	7,070	2,640	669	17,215
Other retail	269	1,076	418	2,060	3,823
Total IRB approach	196,871	185,544	428,816	21,224	832,455
Specialised lending	29,428	34,150	4,319	312	68,209
Subject to standardised approach					
Residential mortgage	111	55	1,637	5	1,808
Corporate	5,866	2,586	2,439	183	11,074
Other	876	113	-	-	989
Total standardised approach	6,853	2,754	4,076	188	13,871
Total exposures (EaD)	233,152	222,448	437,211	21,724	914,535

⁽¹⁾ Sovereign exposure with less than 12 months residual contractual maturity has been restated from that previously disclosed (\$24,136m) to include the exchange settlement account with the RBA. The amount has also been impacted by the change in presentation of derivative maturity described above, which impacts a number of asset classes.

5.1 General Disclosures (continued)

Credit Provisions and Losses

Table 5.1F: Provisions by Asset Class

The following table provides information on asset quality.

Exposure type	As at 30 Sep 20			6 months ended 30 Sep 20	
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment	Specific credit impairment charge	Net write-offs
	\$m	\$m	\$m	\$m	\$m
Subject to IRB approach					
Corporate (including SME)	1,228	284	562	211	215
Residential mortgage	314	3,530	110	16	23
Qualifying revolving retail	-	27	-	75	63
Retail SME	86	268	58	17	17
Other retail	4	58	3	32	35
Total IRB approach	1,632	4,167	733	351	353
Specialised lending	221	58	95	36	10
Subject to standardised approach					
Residential mortgage	11	29	4	-	-
Corporate	2	1	8	2	1
Total standardised approach	13	30	12	2	1
Total	1,866	4,255	840	389	364
Additional regulatory specific provisions			1,648		
Total regulatory specific provisions			2,488		
General reserve for credit losses			3,888		

Exposure type	As at 31 Mar 20			6 months ended 31 Mar 20	
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment	Specific credit impairment charge	Net write-offs
	\$m	\$m	\$m	\$m	\$m
Subject to IRB approach					
Corporate (including SME)	1,384	316	574	97	94
Bank	-	-	-	(2)	(2)
Residential mortgage	371	3,155	120	41	35
Qualifying revolving retail	-	42	-	77	67
Retail SME	89	224	55	25	22
Other retail	4	57	2	49	47
Total IRB approach	1,848	3,794	751	287	263
Specialised lending	176	69	64	12	2
Subject to standardised approach					
Residential mortgage	11	27	4	1	-
Corporate	2	1	8	3	2
Total standardised approach	13	28	12	4	2
Total	2,037	3,891	827	303	267
Additional regulatory specific provisions			1,387		
Total regulatory specific provisions			2,214		
General reserve for credit losses			3,014		

5.1 General Disclosures (continued)

Table 5.1G: Provisions by Industry

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

Industry sector	As at 30 Sep 20			6 months ended 30 Sep 20	
	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 and hospitality	69	52	44	26	48
Agriculture, forestry, fishing and mining	475	114	103	10	88
Business services and property services	147	59	65	18	12
Commercial property	244	68	104	37	4
Construction	49	62	28	4	7
Finance and insurance	39	13	33	17	18
Manufacturing	140	49	82	39	23
Personal	7	88	3	109	101
Residential mortgages	324	3,559	115	16	23
Retail and wholesale trade	201	118	143	52	28
Transport and storage	105	39	68	34	2
Utilities	-	1	-	-	6
Other ⁽¹⁾	66	33	52	27	4
Total	1,866	4,255	840	389	364
Additional regulatory specific provisions			1,648		

⁽¹⁾ Other includes health and community services, and education.

Industry sector	As at 31 Mar 20			6 months ended 31 Mar 20	
	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 and hospitality	97	44	65	28	7
Agriculture, forestry, fishing and mining	694	126	181	16	23
Business services and property services	127	55	60	5	9
Commercial property	208	79	74	17	3
Construction	54	57	30	8	25
Finance and insurance	46	15	35	(9)	(2)
Manufacturing	120	63	69	19	2
Personal	7	105	2	126	116
Residential mortgages	382	3,182	124	41	35
Retail and wholesale trade	214	101	120	38	44
Transport and storage	60	36	38	6	1
Utilities	-	1	-	-	1
Other	28	27	29	8	3
Total	2,037	3,891	827	303	267
Additional regulatory specific provisions			1,387		

5.1 General Disclosures (continued)

Table 5.1H: Provisions by Geography

The following table provides asset quality information by major geographical area, based on the booking office where the exposure was transacted.

	As at 30 Sep 20			
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment	General reserve for credit losses
	\$m	\$m	\$m	\$m
Geographic region				
Australia	1,277	4,082	608	4,831
New Zealand	561	163	219	649
Asia, Europe and Americas	28	10	13	56
Total	1,866	4,255	840	5,536
Additional regulatory specific provisions			1,648	(1,648)
Plus reserve created through retained profits				-
General reserve for credit losses (GRCL)⁽¹⁾				3,888

⁽¹⁾ The GRCL balance allocated across geographic regions of \$5,536 million (March 2020: \$4,401 million) includes \$5,191 million (March 2020: \$4,008 million) of provisions on loans at amortised cost and \$345 million (March 2020: \$393 million) of provisions on loans and derivatives at fair value.

	As at 31 Mar 20			
	Impaired facilities	Past due facilities ≥90 days	Specific provision for credit impairment	General reserve for credit losses
	\$m	\$m	\$m	\$m
Geographic region				
Australia	1,299	3,705	622	3,774
New Zealand	699	177	191	595
Asia, Europe and Americas	39	9	14	32
Total	2,037	3,891	827	4,401
Regulatory specific provisions			1,387	(1,387)
Plus reserve created through retained profits				-
General reserve for credit losses (GRCL)				3,014

5.1 General Disclosures (continued)

Table 5.1I: Movement in Provisions

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

	6 months ended 30 Sep 20	6 months ended 31 Mar 20
	\$m	\$m
General reserve for credit losses		
Collective provision balance at beginning of period	4,008	3,118
Net transfer to specific provision	(112)	(114)
New and increased provision (net of releases)	1,330	976
Foreign currency translation and other adjustments	(35)	28
Collective provision on loans and advances at amortised cost	5,191	4,008
Collective provisions on loans and derivatives at fair value	345	393
Less additional regulatory specific provisions	(1,648)	(1,387)
General reserve for credit losses	3,888	3,014
Specific provisions		
Balance at beginning of period	827	782
Net transfer from collective provision	112	114
New and increased provisions (net of releases)	383	301
Write-backs of specific provisions	(94)	(75)
Write-offs from specific provisions	(398)	(302)
Foreign currency translation and other adjustments	(10)	7
Specific provisions on loans and advances at amortised cost	820	827
Specific provisions on loans and derivatives at fair value	20	-
Additional regulatory specific provisions	1,648	1,387
Total regulatory specific provisions	2,488	2,214
Total provisions	6,376	5,228

Factors Impacting Loss Experience in the Period

90+ days past due loans

90+ days past due facilities at 30 September 2020 increased compared to 31 March 2020 due to increased delinquencies across the Australian mortgage portfolio from customers not on a COVID-19 payment deferral.

Impaired facilities

Impaired facilities as at 30 September 2020 decreased compared to 31 March 2020 predominantly driven by business turnarounds for a small number of larger exposures within the Corporate and Institutional Banking and New Zealand Banking business lending portfolios, partially offset by the impairment of a small number of larger exposures in the Business and Private Banking and New Zealand Banking business lending portfolios.

Specific provision for credit impairment

Specific provisions for credit impairment at 30 September 2020 increased compared to 31 March 2020 mainly due to new and increased specific provisions raised for the business lending portfolio in Australia and New Zealand, partially offset by work-outs for a small number of larger exposures.

Specific credit impairment charge

The specific credit impairment charge for the six months ended 30 September 2020 was \$389 million, \$86 million higher than the six months ended 31 March 2020. This was largely due to a higher level of individual impaired exposures in Business and Private Banking, partially offset by lower charges in Personal Banking for the retail portfolio.

Net write-offs

Net write-offs increased from \$267 million for the six months ended 31 March 2020 to \$364 million for the six months ended 30 September 2020, due to a small number of larger name write-offs in the Group's business lending portfolio.

5.1 General Disclosures (continued)

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 (before credit risk mitigation).

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 probability of default (PD) and stressed loss given default (LGD). 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 20	
	Exposure weighted average actual loss (net write-offs) ⁽¹⁾	Exposure weighted average regulatory expected loss ⁽¹⁾
	\$m	\$m
Subject to IRB approach		
Corporate (including SME)	427	2,100
Sovereign	-	4
Bank	4	40
Residential mortgage	85	908
Qualifying revolving retail	171	214
Retail SME	65	228
Other retail	98	145
Total IRB approach	850	3,639

⁽¹⁾ These values provide a comparison of actual losses (net write-offs) and regulatory expected loss averaged over a period of eleven years to 30 September 2020.

Exposure type	As at 31 Mar 20	
	Exposure weighted average actual loss (net write-offs) ⁽¹⁾	Exposure weighted average regulatory expected loss ⁽¹⁾
	\$m	\$m
Subject to IRB approach		
Corporate (including SME)	406	2,228
Sovereign	-	2
Bank	2	42
Residential mortgage	87	930
Qualifying revolving retail	170	221
Retail SME	65	234
Other retail	98	151
Total IRB approach	828	3,808

⁽¹⁾ These values provide a comparison of actual losses (net write-offs) and regulatory expected loss averaged over a period of ten years to 31 March 2020.

Exposure type	As at 30 Sep 19	
	Exposure weighted average actual loss (net write-offs) ⁽¹⁾	Exposure weighted average regulatory expected loss ⁽¹⁾
	\$m	\$m
Subject to IRB approach		
Corporate (including SME)	444	2,141
Sovereign	-	5
Bank	5	42
Residential mortgage	89	888
Qualifying revolving retail	174	215
Retail SME	67	233
Other retail	99	145
Total IRB approach	878	3,669

⁽¹⁾ These values provide a comparison of actual losses (net write-offs) and regulatory expected loss averaged over a period of ten years to 30 September 2019.

5.1 General Disclosures (continued)

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.

An 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 observation period since 2010. 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 20		Ratio of estimated to actual EAD
	Average estimated PD ⁽¹⁾ %	Average actual PD ⁽¹⁾ %	
Subject to IRB approach			
Corporate (including SME)	1.71	1.71	1.0
Sovereign ⁽²⁾	0.43	0.10	1.2
Bank ⁽²⁾	0.37	0.11	1.1
Residential mortgage ⁽³⁾	0.92	0.89	1.0
Qualifying revolving retail	1.51	1.48	1.1
Retail SME	2.24	2.14	1.1
Other retail	2.72	2.86	1.1

⁽¹⁾ These values provide a comparison of internal estimates of long-run PD with actual default rates averaged over a period of eleven years to 30 September 2020.

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

⁽³⁾ Estimated PDs includes BNZ assets subject to RBNZ calibration overlay.

Exposure type	As at 31 Mar 20		Ratio of estimated to actual EAD
	Average estimated PD ⁽¹⁾ %	Average actual PD ⁽¹⁾ %	
Subject to IRB approach			
Corporate (including SME)	1.69	1.64	1.1
Sovereign	0.45	0.07	1.1
Bank	0.39	0.15	1.0
Residential mortgage	0.95	0.88	1.0
Qualifying revolving retail	1.57	1.48	1.1
Retail SME	2.24	2.09	1.1
Other retail	2.77	2.88	1.1

⁽¹⁾ These values provide a comparison of internal estimates of long-run PD with actual default rates averaged over a period of ten years to 31 March 2020.

Exposure type	As at 30 Sep 19		Ratio of estimated to actual EAD
	Average estimated PD ⁽¹⁾ %	Average actual PD ⁽¹⁾ %	
Subject to IRB approach			
Corporate (including SME)	1.72	1.72	1.1
Sovereign	0.43	0.11	1.1
Bank	0.37	0.12	1.1
Residential mortgage	0.92	0.89	1.0
Qualifying revolving retail	1.51	1.51	1.1
Retail SME	2.19	2.12	1.1
Other retail	2.71	2.89	1.1

⁽¹⁾ These values provide a comparison of internal estimates of long-run PD with actual default rates averaged over a period of ten years to 30 September 2019.

5.1 General Disclosures (continued)

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

The following table compares internal estimates of downturn LGD at the beginning of the year with actual losses.

Actual LGD has been calculated using net write-offs from defaults during the eleven years (March 2020 and September 2019: ten years) to the reporting date, excluding recent defaults to allow sufficient time to complete 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 this period is the most recent two years.

Exposure type	As at 30 Sep 20	
	Average estimated downturn LGD ⁽¹⁾	Average actual LGD ⁽¹⁾
	%	%
Subject to IRB approach		
Corporate (including SME) ⁽²⁾	38.5	22.9
Sovereign	45.0	-
Bank	51.1	1.3
Residential mortgage ⁽²⁾	20.5	4.7
Qualifying revolving retail	85.3	54.0
Retail SME	35.2	18.3
Other retail	75.9	45.6

⁽¹⁾ These values provide a comparison of internal estimates of downturn LGD with actual losses which were evidenced during the eleven years to 30 September 2020.

⁽²⁾ Estimated downturn LGD subject to APRA and RBNZ imposed regulatory floors.

Exposure type	As at 31 Mar 20	
	Average estimated downturn LGD ⁽¹⁾	Average actual LGD ⁽¹⁾
	%	%
Subject to IRB approach		
Corporate (including SME)	38.4	22.4
Sovereign	45.0	-
Bank	52.9	1.0
Residential mortgage	20.5	4.5
Qualifying revolving retail	86.2	54.2
Retail SME	35.4	17.8
Other retail	76.4	46.2

⁽¹⁾ These values provide a comparison of internal estimates of downturn LGD with actual losses which were evidenced during the ten years to 31 March 2020.

Exposure type	As at 30 Sep 19	
	Average estimated downturn LGD ⁽¹⁾	Average actual LGD ⁽¹⁾
	%	%
Subject to IRB approach		
Corporate (including SME)	38.5	23.2
Sovereign	45.0	-
Bank	51.1	1.3
Residential mortgage	20.5	4.9
Qualifying revolving retail	86.1	54.5
Retail SME	35.5	18.2
Other retail	76.3	45.2

⁽¹⁾ These values provide a comparison of internal estimates of downturn LGD with actual losses which were evidenced during the ten years to 30 September 2019.

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 S&P Global Ratings 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	S&P	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 subject to the standardised approach by risk-weight.

Standardised approach risk-weights	As at	
	30 Sep 20	31 Mar 20
	Total exposure \$m	Total exposure \$m
2%	5,529	3,067
4%	368	2,391
20%	1,764	1,706
35%	122	142
50%	364	384
75%	598	660
100%	4,879	5,236
150%	26	26
Central counterparty default fund contribution guarantee ⁽¹⁾	156	259
Total exposure subject to the standardised approach	13,806	13,871

⁽¹⁾ 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 20	31 Mar 20
	Total exposure \$m	Total exposure \$m
Residential mortgage		
Unrated	1,706	1,808
Corporate		
External rating grade 1	3,948	5,496
External rating grade 2	1,929	-
Unrated	5,178	5,578
Sub-total	11,055	11,074
Other		
Unrated	1,045	989
Total exposure subject to the standardised approach	13,806	13,871

5.2 Standardised and Supervisory Slotting Portfolios (continued)

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 Exposures by Risk-weight

The following table provides the credit exposures for specialised lending products subject to supervisory slotting by risk-weight.

Unexpected loss risk-weights	As at	
	30 Sep 20	31 Mar 20
	Total exposure \$m	Total exposure \$m
70%	23,192	23,603
90%	33,123	35,434
115%	8,737	8,016
250%	774	627
Default	792	529
Total specialised lending exposure subject to supervisory slotting	66,618	68,209

5.3 Internal Ratings-based Portfolios

General Disclosure on the Internal Ratings-based Approach

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 NAB and BNZ 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
Non-retail exposures		
Corporate (including SME)	Companies, partnerships or proprietorships not classified elsewhere, including non-banking entities held by banks.	Statistical risk model, external credit rating and expert judgement
Sovereign	Sovereign and Australian dollar claims on the RBA. Sovereign includes government guaranteed exposures.	Statistical risk model, external credit rating and expert judgement
Bank	ADIs and overseas banks.	Statistical risk model, external credit rating and expert judgement
Specialised lending	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. Specialised lending includes project finance, income-producing real estate, object finance and commodities finance.	Statistical risk model, expert judgement, supervisory slotting
Retail exposures		
Residential mortgage	Exposures partly or fully secured by residential properties.	Statistical risk model
Qualifying revolving retail	Consumer credit card exposures less than \$100,000, excluding BNZ credit cards (which are classified as other retail under RBNZ rules).	Statistical risk model
Retail SME	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
Other retail	Retail exposures other than residential mortgage, qualifying revolving retail and retail SME. Other retail 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-based Approach 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, which estimates the likelihood of default in the next 12 months taking account of the current economic conditions. Point in time PDs are used for management of the portfolio and the collective provision calculation.
- Through the cycle, which estimates the likelihood of default through a full credit cycle. Through the cycle PDs are used for regulatory and economic capital calculations.

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, post-default path rates and 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 utilising regulatory imposed floors.

5.3 Internal Ratings-based Portfolios (continued)

Exposure at Default (EaD)

EaD is calculated according to the facility type. The Group's EaD models predict the 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-based Approach 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
- available financial information
- qualitative information
- exposure and product.

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

While factors predictive of default have broad similarities across segments (for example, 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.

5.3 Internal Ratings-based Portfolios (continued)

Internal Ratings-based Approach for Retail Credit

PD models

Retail PD models are developed using:

- 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 similar to those used in non-retail, and scaling factors.

For retail products, credit conversion factors 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 are 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, lenders mortgage insurance is generally required for borrowing where the Loan to Value Ratio is above 80% at origination. Such insurance 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.

5.3 Internal Ratings-based Portfolios (continued)

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 by PD risk grade. Exposures have been categorised into PD grades as assessed by the Group's own internal ratings system, however for disclosure purposes have been categorised into bands that broadly correspond to externally recognised risk grades. Moody's Investor Services risk grades have been included as a reference point.

External credit rating equivalent	As at 30 Sep 20						
	PD risk grade mapping						
	Aa3 and above	A1, A2, A3	Baa1, Baa2, Baa3	Ba1, Ba2	Ba3, B1	B2 and below	Default
	0<0.03%	0.03<0.11%	0.11<0.55%	0.55<2.00%	2.00<5.01%	5.01<99.99%	100%
Subject to IRB approach	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Total exposure							
Corporate (including SME)	-	60,970	93,480	81,784	21,357	5,574	2,956
Sovereign	82,126	11,947	91	7	2	-	-
Bank	-	31,693	3,207	77	2	3	-
Total exposure (EaD)	82,126	104,610	96,778	81,868	21,361	5,577	2,956
Undrawn commitments⁽¹⁾							
Corporate (including SME)	-	25,181	29,000	14,407	2,988	632	99
Sovereign	332	395	18	-	1	-	-
Bank	-	767	110	6	-	-	-
Total undrawn commitments	332	26,343	29,128	14,413	2,989	632	99
Subject to IRB approach							
Average EaD (\$m)⁽²⁾							
Corporate (including SME)	-	1.81	0.85	0.56	0.37	0.37	0.57
Sovereign	23.64	8.45	0.46	0.04	0.03	0.09	-
Bank	-	2.01	0.17	1.26	0.05	0.28	-
Exposure-weighted average LGD (%)							
Corporate (including SME)	-	50.0%	36.0%	31.0%	30.1%	32.7%	38.2%
Sovereign	4.2%	41.1%	40.5%	44.2%	45.0%	45.0%	-
Bank	-	49.4%	58.6%	59.2%	44.2%	59.6%	-
Exposure-weighted average risk-weight (%)							
Corporate (including SME)	-	25.2%	40.8%	58.0%	73.4%	131.6%	231.0%
Sovereign	1.1%	10.3%	32.8%	81.0%	132.7%	147.5%	-
Bank	-	21.4%	62.4%	80.7%	150.1%	225.8%	-

⁽¹⁾ Undrawn commitments are included in total exposure shown above.

⁽²⁾ Simple average of exposure by number of arrangements.

5.3 Internal Ratings-based Portfolios (continued)

External credit rating equivalent	As at 31 Mar 20						
	PD risk grade mapping						
	Aa3 and above	A1, A2, A3	Baa1, Baa2, Baa3	Ba1, Ba2	Ba3, B1	B2 and below	Default
	0<0.03%	0.03<0.11%	0.11<0.55%	0.55<2.00%	2.00<5.01%	5.01<99.99%	100%
Subject to IRB approach	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Total exposure							
Corporate (including SME)	-	73,236	103,151	79,330	20,016	4,404	2,851
Sovereign ⁽¹⁾	79,671	5,682	307	2	1	-	-
Bank	-	39,508	4,066	79	13	-	-
Total exposure (EaD)	79,671	118,426	107,524	79,411	20,030	4,404	2,851
Undrawn commitments							
Corporate (including SME)	-	25,474	25,500	12,402	2,166	307	108
Sovereign	343	309	4	-	1	-	-
Bank	-	825	271	12	-	-	-
Total undrawn commitments	343	26,608	25,775	12,414	2,167	307	108
Subject to IRB approach							
Average EaD (\$m)⁽²⁾							
Corporate (including SME)	-	2.08	0.92	0.53	0.35	0.26	0.62
Sovereign	22.45	3.84	1.43	0.01	0.02	0.01	-
Bank	-	2.35	0.72	0.75	0.29	0.06	-
Exposure-weighted average LGD (%)							
Corporate (including SME)	-	51.5%	36.7%	31.7%	30.4%	33.9%	40.8%
Sovereign	4.2%	37.2%	45.9%	42.8%	45.0%	45.0%	-
Bank	-	50.1%	56.5%	59.6%	57.3%	59.6%	-
Exposure-weighted average risk-weight (%)							
Corporate (including SME)	-	26.4%	41.5%	58.6%	73.9%	122.3%	228.4%
Sovereign	0.9%	11.8%	36.4%	80.0%	132.3%	151.7%	-
Bank	-	19.4%	58.0%	95.6%	174.1%	201.1%	-

⁽¹⁾ Sovereign exposure with a PD between 0 and 0.03% has been restated from that previously disclosed (\$66,527m) to include the exchange settlement account with the RBA. Consequently, exposure-weighted average LGD and exposure-weighted average risk-weight have also been restated.

⁽²⁾ Average EaD has been restated from the previously disclosed to reflect the revised number of arrangements.

5.3 Internal Ratings-based Portfolios (continued)

Table 5.3B: Retail Exposures by Risk Grade

The following table provides a breakdown of the retail credit exposures 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 20					
	PD risk grade					
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
Total exposure						
Residential mortgage	80,224	158,043	117,976	15,179	11,146	4,205
Qualifying revolving retail	2,782	3,242	1,911	942	486	30
Retail SME	1,831	5,843	5,953	2,139	697	589
Other retail	875	549	837	575	323	69
Total exposure (EaD)	85,712	167,677	126,677	18,835	12,652	4,893
Undrawn commitments⁽¹⁾						
Residential mortgage	30,126	14,510	4,969	506	91	31
Qualifying revolving retail	2,476	2,211	587	110	50	2
Retail SME	1,065	1,692	970	258	65	32
Other retail	605	243	176	45	17	1
Total undrawn commitments	34,272	18,656	6,702	919	223	66
Subject to IRB approach						
Average EaD (\$m)⁽²⁾						
Residential mortgage	0.20	0.33	0.28	0.39	0.41	0.34
Qualifying revolving retail	0.01	0.01	0.01	0.01	0.01	0.01
Retail SME	0.04	0.05	0.04	0.04	0.02	0.04
Other retail	small	small	small	0.01	small	0.01
Exposure-weighted average LGD (%)						
Residential mortgage	20.0%	20.0%	20.2%	19.9%	20.0%	20.0%
Qualifying revolving retail	74.0%	74.1%	74.6%	75.5%	75.5%	78.8%
Retail SME	25.6%	25.8%	28.1%	29.0%	30.2%	33.9%
Other retail	85.0%	81.7%	77.2%	74.7%	76.1%	80.8%
Exposure-weighted average risk-weight (%)						
Residential mortgage	5.7%	17.3%	33.8%	77.2%	124.6%	201.6%
Qualifying revolving retail	3.4%	9.8%	32.4%	69.3%	164.7%	132.7%
Retail SME	6.3%	14.7%	32.6%	51.7%	84.8%	233.2%
Other retail	13.8%	43.7%	86.3%	109.9%	146.5%	137.5%

⁽¹⁾ Undrawn commitments are included in total exposures shown above.

⁽²⁾ Simple average of exposure by number of arrangements.

5.3 Internal Ratings-based Portfolios (continued)

	As at 31 Mar 20					
	PD risk grade					
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
Total exposure						
Residential mortgage	79,495	157,952	118,539	16,262	12,764	3,906
Qualifying revolving retail	2,577	3,302	2,305	1,297	654	47
Retail SME	1,647	5,364	6,312	2,466	893	533
Other retail	882	583	950	844	497	67
Total exposure (EaD)	84,601	167,201	128,106	20,869	14,808	4,553
Undrawn commitments						
Residential mortgage	28,547	13,749	5,347	470	76	31
Qualifying revolving retail	2,285	2,174	640	122	42	3
Retail SME	971	1,487	941	269	66	28
Other retail	619	246	190	61	20	1
Total undrawn commitments	32,422	17,656	7,118	922	204	63
Subject to IRB approach						
Average EaD (\$m)⁽¹⁾						
Residential mortgage	0.22	0.32	0.28	0.39	0.40	0.32
Qualifying revolving retail	0.01	0.01	0.01	0.01	0.01	0.01
Retail SME	0.04	0.05	0.04	0.03	0.02	0.03
Other retail	small	small	0.01	0.01	small	small
Exposure-weighted average LGD (%)						
Residential mortgage	20.0%	20.0%	20.2%	19.9%	20.0%	20.0%
Qualifying revolving retail	74.0%	74.1%	74.7%	75.6%	75.7%	77.3%
Retail SME	24.8%	25.5%	28.3%	29.6%	30.4%	34.5%
Other retail	85.0%	82.4%	78.0%	75.2%	76.7%	81.4%
Exposure-weighted average risk-weight (%)						
Residential mortgage	5.7%	17.3%	33.9%	77.3%	123.9%	197.3%
Qualifying revolving retail	3.4%	10.0%	32.7%	69.8%	168.7%	166.0%
Retail SME	6.1%	14.7%	33.3%	53.9%	87.3%	230.9%
Other retail	13.8%	44.0%	87.4%	111.1%	150.1%	165.3%

⁽¹⁾ Average EaD has been restated from the previously disclosed to reflect the revised number of arrangements.

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, being 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 and achieve portfolio diversification.

Credit risk to individual hedge counterparties is mitigated through careful selection of either counterparties with strong credit quality (either investment grade or supported by appropriate credit support) and/or 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

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 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.

5.4 Credit Risk Mitigation (continued)

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 20	
	Total exposure	Eligible financial collateral applied
	\$m	\$m
Subject to IRB approach		
Corporate (including SME)	266,121	77,361
Sovereign	94,173	22,271
Bank	34,982	39,562
Residential mortgage	386,773	-
Qualifying revolving retail	9,393	-
Retail SME	17,052	5
Other retail	3,228	-
Total IRB approach	811,722	139,199
Specialised lending	66,618	331
Subject to standardised approach		
Residential mortgage	1,706	-
Corporate	11,054	40,607
Other	1,046	31
Total standardised approach	13,806	40,638
Total	892,146	180,168

Exposure type	As at 31 Mar 20	
	Total exposure	Eligible financial collateral applied
	\$m	\$m
Subject to IRB approach		
Corporate (including SME)	282,988	77,189
Sovereign ⁽¹⁾	85,663	17,664
Bank	43,666	41,361
Residential mortgage	388,918	-
Qualifying revolving retail	10,182	-
Retail SME	17,215	6
Other retail	3,823	-
Total IRB approach	832,455	136,220
Specialised lending	68,209	355
Subject to standardised approach		
Residential mortgage	1,808	-
Corporate	11,074	69,670
Other	989	34
Total standardised approach	13,871	69,704
Total	914,535	206,279

⁽¹⁾ Sovereign exposure has been restated from that previously disclosed (\$72,519m) to include the exchange settlement account with the RBA.

5.4 Credit Risk Mitigation (continued)

Table 5.4B: Mitigation by Guarantees and Credit Derivatives

The following table provides details of guarantees and credit derivatives.

Exposure type	As at 30 Sep 20		
	Total exposure	Covered by guarantees	Covered by credit derivatives
	\$m	\$m	\$m
Subject to IRB approach			
Corporate (including SME)	266,121	26,604	-
Sovereign	94,173	-	-
Bank	34,982	86	-
Residential mortgage	386,773	-	-
Qualifying revolving retail	9,393	-	-
Retail SME	17,052	-	-
Other retail	3,228	-	-
Total IRB approach	811,722	26,690	-
Specialised lending	66,618	-	-
Subject to standardised approach	0	0	-
Residential mortgage	1,706	-	-
Corporate	11,054	-	-
Other	1,046	-	-
Total standardised approach	13,806	-	-
Total	892,146	26,690	-

Exposure type	As at 31 Mar 20		
	Total exposure	Covered by guarantees	Covered by credit derivatives
	\$m	\$m	\$m
Subject to IRB approach			
Corporate (including SME)	282,988	29,492	-
Sovereign ⁽¹⁾	85,663	-	-
Bank	43,666	274	-
Residential mortgage	388,918	-	-
Qualifying revolving retail	10,182	-	-
Retail SME	17,215	-	-
Other retail	3,823	-	-
Total IRB approach	832,455	29,766	-
Specialised lending	68,209	-	-
Subject to standardised approach			
Residential mortgage	1,808	-	-
Corporate	11,074	-	-
Other	989	-	-
Total standardised approach	13,871	-	-
Total	914,535	29,766	-

⁽¹⁾ Sovereign exposure has been restated from that previously disclosed (\$72,519m) to include the exchange settlement account with the RBA.

5.5 Counterparty Credit Risk

This section describes the Group's approach to managing credit risk relating to derivatives. Counterparty Credit Risk is the risk that a counterparty to a transaction may default before 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 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 master agreements 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 implementation of risk policies.

Downgrade Impact

As at 30 September 2020, the Group would need to post an estimated amount of \$20 million of collateral in the event of a one notch downgrade to the Group's credit rating, and \$14 billion in the event of a two notch downgrade.

5.5 Counterparty Credit Risk (continued)

Table 5.5A (i): Net Derivatives Credit Exposure

The following tables provide the calculation of net derivatives credit exposure. The exposure represents the EaD under the standardised approach for measuring counterparty credit risk exposures (SA-CCR).

	30 Sep 20	31 Mar 20
	\$m	\$m
Gross positive fair value of derivative contracts	118,765	156,283
Netting and collateral benefits	(104,412)	(134,218)
Replacement cost (RC)	14,353	22,065
Potential future credit exposure	13,907	14,714
Effective expected positive exposure	28,260	36,779
Impact of scaling factor of 1.4 and credit valuation adjustment ⁽¹⁾	11,123	14,454
Total net derivatives credit exposure	39,383	51,233

⁽¹⁾ Credit valuation adjustment that has been recognised as an incurred write-down (i.e. expensed for accounting purposes).

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

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

	30 Sep 20	31 Mar 20
	Exposure at default \$m	Exposure at default \$m
Exposure type		
Interest rate contracts	15,396	15,114
Foreign exchange and gold contracts	16,055	27,886
Equity contracts	46	430
Commodity contracts other than precious metals	2,020	2,475
Other market related contracts	25	4
Central counterparty ⁽¹⁾	5,841	5,324
Total	39,383	51,233

⁽¹⁾ 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 value of credit derivative transactions, segregated between use for the Group's own credit portfolio, as well as in its intermediation activities. This is broken down further by protection bought and sold.

	As at 30 Sep 20			As at 31 Mar 20		
	Protection bought notional	Protection sold notional	Total notional	Protection bought notional	Protection sold notional	Total notional
	\$m	\$m	\$m	\$m	\$m	\$m
Credit derivatives products used for own credit portfolio						
Credit default swaps	8,259	4,183	12,442	4,740	2,173	6,913
Credit derivatives products used for intermediation						
Credit default swaps	92	695	787	1,361	1,946	3,307
Total credit derivative notional value	8,351	4,878	13,229	6,101	4,119	10,220

Section 6

Securitisation

Introduction

Securitisation is a financing 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).

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 special purpose vehicles (SPVs). They also include 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 has also established internal securitisations and holds the issued residential mortgage-backed securities (RMBS). These internal RMBS are available as collateral for contingent liquidity purposes as 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
Third party	Arranger, Dealer, Joint Lead Manager, Cross Currency Swap Provider, Interest Rate Swap Provider, Liquidity Facility Provider, Funding Provider, Investor
Own asset	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 & Institutional Banking, while own asset activity is conducted by Group Treasury. Both third party and own asset securitisation activity is also undertaken by BNZ.

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 on these material risks in this report.

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. Factors such as underlying pool composition, type and level of credit enhancement, and structural features of the transaction are considered. 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. Debt securities held in banking book portfolios are subject to VaR limits which are set in accordance with approved risk appetite and monitored daily. An independent price validation process is conducted monthly to evaluate the holding values of portfolio exposures. Contingent liquidity and potential collateral outflows are monitored against approved limits.

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 are identified and recorded in appropriate finance and risk management applications. Underlying pool exposure data is obtained 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 and are reported to the relevant risk committees as appropriate.

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 securitisation exposures
- not providing implicit support to securitisation vehicles
- calculating regulatory capital for credit risk from securitisation exposures.

An assessment demonstrating compliance with the prudential standard is prepared for all securitisation transactions.

The Group complies with the approaches prescribed by APS 120 for calculating regulatory capital, namely the External Ratings-based Approach (ERBA) and the Supervisory Formula Approach (SFA). Under the ERBA, risk-weights are matched to external ratings provided by External Credit Assessment Institutions (ECAIs), varying according to tranche seniority and maturity. Where the use of ECAIs is relevant, the Group applies the ratings provided by S&P Global Ratings, Moody's Investor Services and/or Fitch Ratings. 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 pool assets. In the event neither approach can be applied, the exposure is deducted from CET1 capital.

Securitisation exposures held in the trading book are subject to APS 116.

Accounting Policies

Third party securitisation - The accounting treatment for debt securities issued by, and warehouse facilities provided to, third party securitisation SPVs reflects the Group's business model for managing the asset.

Where debt securities give rise to contractual cash flows that are solely payments of principal and interest, they are measured at amortised cost provided the underlying pool of assets in the SPV contains one or more instruments that have contractual cash flows that are solely payments of principal and interest and the exposure to credit risk in the tranche is equal to or lower than the credit risk in the underlying pool of assets. Warehouse facilities are measured at amortised cost provided they meet similar contractually linked guidance.

Where debt securities are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, they are measured at fair value through other comprehensive income.

Derivatives with third party securitisation SPVs are measured at fair value through 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, the assets are not derecognised from the balance sheet.

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

Further information on the Group's accounting policies that are relevant to securitisation can be found in the 2020 Annual Financial Report, in particular in the financial instruments overview section, and the notes on financial asset transfers and interest in subsidiaries and other entities.

Table 6.1A: Exposures Securitised

The following table provides 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
- internal RMBS - securities are issued and held internally for contingent liquidity purposes (also known as self-securitisation).

Underlying asset	As at 30 Sep 20			
	Group originated capital relief	Group originated funding only	Group ⁽¹⁾ originated internal RMBS	Third party originated assets
	\$m	\$m	\$m	\$m
Residential mortgage	2,100	1,248	148,465	-

⁽¹⁾ 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 \$133,831 million (March 2020: \$71,491 million).

Underlying asset	As at 31 Mar 20			
	Group originated capital relief	Group originated funding only	Group originated internal RMBS	Third party originated assets
	\$m	\$m	\$m	\$m
Residential mortgage	2,398	1,663	83,220	-

There were no exposures securitised either in the trading book or synthetically by the Group as at 30 September 2020 or 31 March 2020.

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

The following table provides 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 20			
	Outstanding exposure	Impaired facilities	Past due facilities ≥90 days	Losses recognised
	\$m	\$m	\$m	\$m
Residential mortgage	151,813	73	736	-

Underlying asset	As at 31 Mar 20			
	Outstanding exposure	Impaired facilities	Past due facilities ≥90 days	Losses recognised
	\$m	\$m	\$m	\$m
Residential mortgage	87,281	120	703	-

Table 6.1C: Recent Securitisation Activity

The following table provides 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 31 March 2020.

Underlying asset	6 months ended 30 Sep 20			Recognised gain or loss on sale
	Group originated capital relief	Group originated funding only	Group originated internal RMBS	
	\$m	\$m	\$m	\$m
Residential mortgage	-	-	66,728	-

There were no banking book exposures that the Group intended to be securitised as at 30 September 2020 (31 March 2020: \$20,314 million relating to internal RMBS). There were no outstanding trading book exposures intended to be securitised as at 30 September 2020 or 31 March 2020.

Table 6.1D: Securitisation Exposures Retained or Purchased

The following table provides the amount of 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 20			As at 31 Mar 20		
	On-balance sheet	Off-balance sheet	Total	On-balance sheet	Off-balance sheet	Total
	\$m	\$m	\$m	\$m	\$m	\$m
Liquidity facilities	170	1,529	1,699	120	1,768	1,888
Warehouse facilities	11,745	6,626	18,371	11,960	4,344	16,304
Securities	8,123	-	8,123	8,766	-	8,766
Derivatives	-	106	106	-	120	120
Total	20,038	8,261	28,299	20,846	6,232	27,078

The Group had \$728 million of derivative exposures held in the trading book subject to IMA under APS 116 as at 30 September 2020 (31 March 2020: \$650 million). The Group had no trading book exposures subject to APS 120 which were either risk-weighted or deducted from capital at 30 September 2020 or 31 March 2020.

The Group had no exposures subject to early amortisation in either the banking or trading book at 30 September 2020 or 31 March 2020.

Table 6.1E: Securitisation Exposures by Risk-weight

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

Risk-weight bands	As at 30 Sep 20		As at 31 Mar 20	
	Exposure	RWA	Exposure	RWA
	\$m	\$m	\$m	\$m
15% ≤ 25%	27,306	4,602	25,207	4,310
> 25% ≤ 35%	583	164	1,070	298
> 35% ≤ 50%	24	10	437	162
> 50% ≤ 75%	312	181	309	180
> 75% ≤ 100%	20	16	1	1
> 100% ≤ 650%	29	73	29	57
> 650% ≤ 850%	15	115	15	108
> 850% < 1250%	7	76	7	81
Deductions from CET1 capital ⁽¹⁾	3	-	3	-
Total	28,299	5,237	27,078	5,197

⁽¹⁾ Deductions relate to subordinated exposure to residential mortgages.

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, credit spreads, foreign exchange rates, commodity prices and equity prices. Traded market risk is the risk of losses or gains from the Group's trading activities resulting from market price movements.

The Group's exposure to market risk arises out of its trading activities which are carried out by Corporate & Institutional Banking Markets and BNZ Markets. This exposure is quantified for regulatory capital purposes using both the APRA approved IMA and the standard method.

Management and Governance

The Group's risk appetite for market risk is determined by the Board and is expressed in the RAS, and governed by the Group Traded Market Risk Policy.

The market risk settings outlined in the Risk Setting Statement and the comprehensive market risk setting framework complement the RAS by providing further depth on the allocation of market 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 and Compliance Committee, and by senior executive management via the key committees listed in Section 3 *Risk Governance and Management* and the Corporate & Institutional Banking Risk Management Committee and Corporate & 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 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 the areas that carry out trading activities, and has responsibility for the daily measurement and monitoring of market risk exposures. The following key controls are 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
- back-testing 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 review of compliance with policies, procedures, process and limits by Internal Audit.

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 are independently validated with the review outcome documented and reported to the relevant committees on a regular basis
- all trades are measured at fair value 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.

Market Risk

Measurement

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 on a globally diversified basis and reported in Australian dollars 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 back-testing 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 back-testing 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 to reveal sensitivities in the portfolio that may 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 & Institutional Banking Markets and independently by Group Market Risk.

Corporate & Institutional Banking Markets are responsible for managing risk, 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 market risk, equities, some inflation products, 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
Calculation	As per APS 116 (Attachment B)	Internally developed VaR calculation
General market risk	Equities, some inflation products, some banking book foreign exchange risk	Foreign exchange, commodities, credit, interest rate and inflation products
Specific market risk	All applicable products	N/A

Table 7.1A: Market Risk Risk-weighted Assets

	As at	
	30 Sep 20	31 Mar 20
	\$m	\$m
Standard method	424	561
Internal model approach	12,254	9,474
Market risk RWA	12,678	10,035

Table 7.1B: Standard Method Risk-weighted Assets

	As at	
	30 Sep 20	31 Mar 20
	\$m	\$m
Interest rate risk	417	556
Equity position risk	7	5
Foreign exchange risk	-	-
Commodity risk	-	-
Standard method RWA	424	561

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 20			As at
	Mean value	Minimum ⁽¹⁾	Maximum ⁽¹⁾	30 Sep 20
	\$m	value	value	\$m
	\$m	\$m	\$m	\$m
VaR at a 99% confidence level				
Foreign exchange risk	2.0	0.5	5.6	0.8
Interest rate risk	12.8	7.0	24.0	10.1
Volatility risk	4.4	3.6	5.5	4.7
Commodities risk	0.9	0.4	1.7	1.1
Credit risk	2.1	1.2	2.9	2.1
Inflation risk	2.2	1.1	3.1	1.7
Diversification benefit	(9.5)	n/a	n/a	(9.2)
Total diversified VaR at a 99% confidence level	14.9	10.3	24.2	11.3
Other market risks ⁽²⁾	5.8	3.6	10.0	10.0
Total VaR for physical and derivative positions⁽³⁾	20.7	13.9	34.2	21.3

⁽¹⁾ 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.

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

⁽³⁾ 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 20			As at
	Mean value	Minimum	Maximum	31 Mar 20
	\$m	value	value	\$m
	\$m	\$m	\$m	\$m
VaR at a 99% confidence level				
Foreign exchange risk	2.6	0.8	5.5	3.4
Interest rate risk	8.5	5.4	24.8	7.9
Volatility risk	3.9	2.8	6.2	5.1
Commodities risk	0.5	0.3	1.6	0.9
Credit risk	1.5	0.9	4.4	2.9
Inflation risk	1.5	1.0	3.4	3.0
Diversification benefit	(8.5)	n/a	n/a	(11.1)
Total diversified VaR at a 99% confidence level	10.0	7.5	23.9	12.1
Other market risks	4.0	2.3	8.9	8.9
Total VaR for physical and derivative positions	14.0	9.8	32.8	21.0

Market Risk

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 20			As at
	Mean value	Minimum ⁽¹⁾	Maximum ⁽¹⁾	30 Sep 20
	\$m	value \$m	value \$m	\$m
Stressed VaR at risk at a 99% confidence level				
Foreign exchange risk	4.4	1.0	14.6	1.6
Interest rate risk	37.1	20.1	65.1	37.0
Volatility risk	9.4	7.0	12.2	9.0
Commodities risk	0.8	0.5	1.8	0.6
Credit risk	10.2	8.6	13.1	11.1
Inflation risk	2.9	1.6	4.0	2.4
Diversification benefit	(27.0)	n/a	n/a	(25.5)
Total diversified stressed VaR at a 99% confidence level	37.8	23.8	62.5	36.2
Other market risks ⁽²⁾	24.6	15.7	39.2	39.2
Total stressed VaR for physical and derivative positions⁽³⁾	62.4	39.5	101.7	75.4

⁽¹⁾ 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 stressed VaR which is the maxima / minima aggregate stressed VaR position during the period.

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

⁽³⁾ Stressed 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 20			As at
	Mean value	Minimum	Maximum	31 Mar 20
	\$m	value \$m	value \$m	\$m
Stressed VaR at a 99% confidence level				
Foreign exchange risk	7.3	1.8	21.4	9.2
Interest rate risk	28.5	21.3	35.4	32.6
Volatility risk	12.2	8.7	17.6	10.7
Commodities risk	1.9	0.5	5.6	2.6
Credit risk	11.3	10.0	16.0	11.4
Inflation risk	2.9	1.4	4.2	3.7
Diversification benefit	(30.2)	n/a	n/a	(36.7)
Total diversified stressed VaR at a 99% confidence level	33.9	28.0	40.6	33.5
Other market risks	16.0	11.3	31.4	31.2
Total stressed VaR for physical and derivative positions	49.9	39.3	72.0	64.7

Back-testing

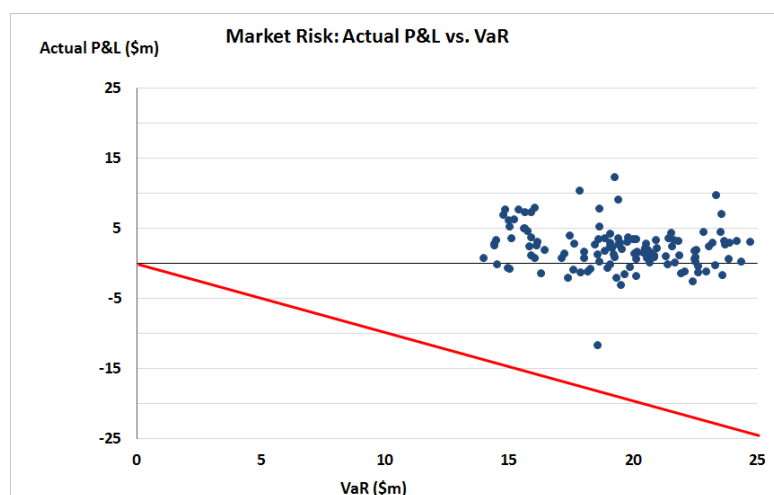
VaR estimates are back-tested regularly for reasonableness. Back-testing is a process that compares the Group's daily VaR estimates against both actual and hypothetical daily profit and loss (P&L) to ensure that model integrity is maintained.

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 periodic reviews and independent validation at frequencies specified by the Group Model Risk Policy.

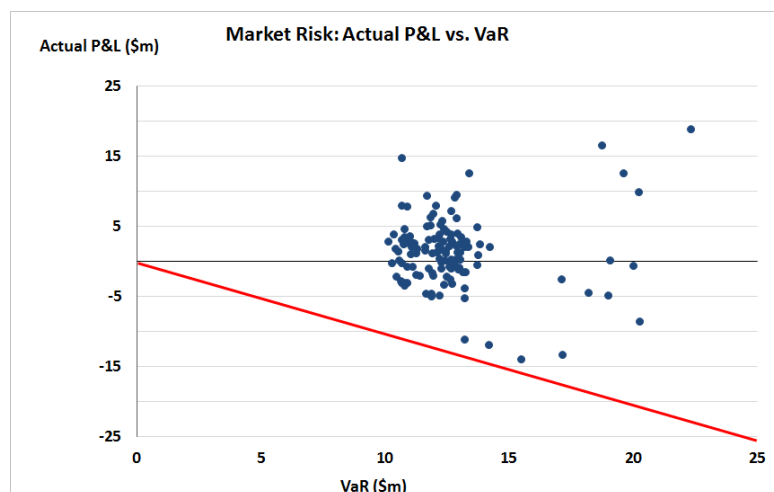
Back-testing Results

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 2020



Results for the six months ended 31 March 2020



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 2020 or the six months ended 31 March 2020. 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 and Compliance Committee, on the recommendation of the Executive Risk Committee, is responsible for approving and/or endorsing the Risk Management Strategy and Group Operational Risk Appetite. The Group's risk governance structure provides the Board and Board Risk and Compliance Committee with assurance over the performance of the overall Risk Management Framework. This is primarily achieved through Resilience Risk which provides the Board, Board Risk and Compliance Committee, Executive Risk Committee, Group Non-Financial 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

Resilience Risk Modelling and Frameworks provides the framework, policies, standards, processes and tools (Operational Risk Management Framework) for the business to use in the identification, assessment, management, monitoring, measurement and reporting of operational risks.

Implementation of the Group 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
- 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 a 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 the Group.

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.

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.

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 risk management culture throughout the Group.

Resilience 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 and Compliance Committee and Executive Risk Committee as part of the Group Chief Risk Officer reporting material.
- regular material risk update paper to the Board Risk and Compliance Committee via the Executive Risk Committee.

At times, the Group Chief Risk Officer and risk committees may also request Resilience Risk to report on topics of operational risk such as technology risk, information security risk or business continuity management. Resilience 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.

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 short-term and long-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
- retain adequate liquidity buffers in the Group and subsidiary balance sheets so as to withstand severe market and institutional disruptions
- meet planned business funding needs over a forward horizon
- maintain access to global short-term and long-term debt capital markets and global secured funding markets
- 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, the Funding Strategy, the Contingent Funding Plan and the 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.

The Group Liquidity Risk Policy requires that the Group maintains a liquid asset portfolio, comprising high-quality liquid assets (HQLA) that can be readily converted to cash and used to support intraday payments. The Group's liquid asset portfolio is maintained by geography, currency and legal entity across NAB, BNZ and branches in London, New York and Asia. The liquidity portfolio comprises a mix of:

- cash
- Australian government and semi-government securities, and foreign sovereign securities
- central bank reserves
- a mix of negotiable certificates of deposit, bank bills, supranational bonds, covered bonds, RMBS and internal RMBS (available as collateral for the Committed Liquidity Facility (CLF) and Term Funding Facility (TFF) with the RBA).

The target size, diversity and tenor of the Group's funding mix is set annually in the Funding Strategy based on the risk appetite settings. The strategy is updated quarterly to reflect current market conditions and outlook. The Group's funding is sourced from:

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

The Group's 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 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 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. Regulatory liquidity metric results are reported to the Board Risk and Compliance Committee, Executive Risk Committee and Group Asset and Liability 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

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.

The key elements of the management framework for IRRBB include:

- the Interest Rate Risk in the Banking Book 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 Policy and guidance notes define the funds transfer pricing 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 market 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
VaR	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
Earnings at Risk	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
Market value	The present value of all known future cash flows implied by the static balance sheet on both a spot and historically cumulative basis
Embedded value	The economic gain or loss implied by the static balance sheet which equates to the market value less the book value, less accrued interest
Economic value sensitivity	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
Net interest income sensitivity	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
Stress testing	The potential loss in earnings and economic value from large parallel and non-parallel yield curve shocks

VaR and Earnings at Risk 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 approval by subsidiary asset, liability and capital committees or the Group Asset and Liability Committee.

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, a one-year investment term of capital, and a 12-month holding period.

9.2 Interest Rate Risk in the Banking Book (continued)

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: Impact on Economic Value from Rate Shocks

The following table provides the increase or decrease in economic value for upward and downward rate shocks broken down by currency. The 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 (bp) interest rate shock results include earnings offset.

	As at 30 Sep 20		As at 31 Mar 20	
	200 bp parallel increase \$m	200 bp parallel decrease \$m	200 bp parallel increase \$m	200 bp parallel decrease \$m
Change in economic value				
AUD	(296)	359	(76)	144
CAD	-	-	-	-
CHF	-	-	-	-
EUR	(14)	15	(12)	13
GBP	(5)	5	(10)	10
HKD	-	-	-	-
JPY	10	(10)	1	(1)
NZD	(222)	237	(156)	161
USD	(53)	57	(76)	84
Other	-	-	1	(1)
Total change in economic value	(580)	663	(328)	410

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 is the potential for financial loss as a result of reduction in the value of an equity investment. For capital purposes, equity exposures are deducted from CET1 capital.

Management

Equity risk appetite limits are reflected in the Risk Appetite Statement and the Balance Sheet and Liquidity Risk Management Limits Schedule. The Group Equity Risk in the Banking Book 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. Balance Sheet and Liquidity Risk Management are responsible for independent oversight of the non-traded equity risk framework.

Reporting of equity risk is included in reporting provided to senior management and risk committees.

Valuation and Accounting

The accounting treatment for equity investments depends on whether the Group has significant influence over the investee. Where significant influence exists, the investment is classified as an associate and is accounted for using the equity method. Under the equity method, the investment is initially recognised at cost and adjusted thereafter for the post-acquisition change in the Group's share of the associate's net assets. The Group's profit or loss includes its share of the associate's profit or loss, and the Group's other comprehensive income includes its share of the associate's other comprehensive income.

Equity investments 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 defined as the sales price that would be received in an orderly transaction between market participants. Fair value for unlisted equities 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 Level 2 Group's balance sheet, as well as the estimated fair value of those investments.

	As at 30 Sep 20		As at 31 Mar 20	
	Carrying value	Fair value	Carrying value	Fair value
	\$m	\$m	\$m	\$m
Unlisted equities	575	575	503	503

Table 9.3B: Gains and Losses from Equity Holdings

The following table provides realised and unrealised gains or losses gross of any tax effect from equity instruments, where:

- realised gains or losses represent the difference between the cost of 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 or losses represent the difference between the cost of equity instruments and their carrying value.

	30 Sep 20	31 Mar 20
	\$m	\$m
Gains/(losses) on equity investments		
Realised losses	-	(13)
Cumulative unrealised losses	(268)	(238)

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 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 and Compliance Committee, the Board monitors and reviews the adequacy of the Group's foreign exchange risk compliance and management framework developed by management.

Key elements of the management framework for FXRBB include:

- the Group Foreign Exchange Risk in the Banking Book Policy which 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 Board and Group Asset and Liability Committee approved foreign exchange risk management strategies
- the Group and subsidiary balance sheet market risk teams provide independent oversight. They are responsible for monitoring and oversight to ensure FXRBB is managed in compliance with 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) measures the adequacy of HQLA available to meet net cash outflows over a 30-day period during a severe liquidity stress scenario.

The Group manages its LCR position daily within a target range that reflects management's risk appetite across the legal entity structure, major currencies and jurisdictions in which business activities are undertaken. The APRA minimum LCR is 100%.

The LCR for the three months ended 30 September 2020 and 30 June 2020 is presented in Table 9.5A *Liquidity Coverage Ratio Disclosure Template*, and is based on a simple average of daily LCR outcomes excluding non-business days.

Average liquid assets for the three months ended 30 September 2020 and 30 June 2020 were \$199 billion and \$186 billion respectively, of which HQLA were on average \$126 billion and \$116 billion respectively and Alternative Liquid Assets (ALA) were on average \$71 billion and \$69 billion respectively. ALA relate to the CLF and the TFF provided by the RBA. The ALA value used in the LCR calculation is the lesser of the undrawn portion of these facilities and the value of the collateral held at any given time to support these facilities. This collateral is a combination of internal RMBS and other marketable securities eligible for repurchase by the RBA. The drawn portion of the CLF relates to accounts held with the RBA for the settlement of daily payment obligations.

Average LCR for the three months ended 30 September 2020 increased to 139% as a result of higher liquid assets. The increase in liquid assets was driven by higher deposits and lower lending.

9.5 Liquidity Disclosures (continued)

Table 9.5A: Liquidity Coverage Ratio Disclosure Template

		3 months ended			
		30 Sep 20		30 Jun 20	
		64 data points		62 data points	
		Total unweighted value (average)	Total weighted value (average)	Total unweighted value (average)	Total weighted value (average)
		\$m ⁽¹⁾	\$m	\$m ⁽¹⁾	\$m
Liquid assets, of which:			199,275		186,414
1	High-quality liquid assets (HQLA) ⁽²⁾⁽³⁾		125,687		116,011
2	Alternative liquid assets (ALA) ⁽³⁾		71,424		68,790
3	Reserve Bank of New Zealand (RBNZ) securities ⁽²⁾⁽³⁾		2,164		1,613
Cash outflows					
4	Retail deposits and deposits from small business customers	219,269	22,772	214,723	24,730
5	of which: stable deposits ⁽⁴⁾	101,088	5,054	71,473	3,574
6	of which: less stable deposits ⁽⁴⁾	118,181	17,718	143,250	21,156
7	Unsecured wholesale funding	162,871	80,901	161,205	84,056
8	of which: operational deposits (all counterparties) and deposits in networks for cooperative banks	70,937	19,969	65,899	18,946
9	of which: non-operational deposits (all counterparties)	79,698	48,696	79,350	49,154
10	of which: unsecured debt	12,236	12,236	15,956	15,956
11	Secured wholesale funding ⁽³⁾		2,924		918
12	Additional requirements	188,776	42,845	181,963	39,579
13	of which: outflows related to derivatives exposures and other collateral requirements	23,802	23,802	22,458	22,458
14	of which: outflows related to loss of funding on debt products	-	-	-	-
15	of which: credit and liquidity facilities	164,974	19,043	159,505	17,121
16	Other contractual funding obligations	1,612	986	1,517	802
17	Other contingent funding obligations	65,830	4,545	71,101	4,906
18	Total cash outflows		154,973		154,991
Cash inflows					
19	Secured lending	78,078	1,723	75,326	2,372
20	Inflows from fully performing exposures	17,076	9,638	18,455	11,175
21	Other cash inflows	689	689	591	591
22	Total cash inflows	95,843	12,050	94,372	14,138
23	Total liquid assets		199,275		186,414
24	Total net cash outflows		142,923		140,853
25	Liquidity Coverage Ratio (%)		139%		132%

⁽¹⁾ Unweighted inflow and outflow values are outstanding balances maturing or callable within 30 days.

⁽²⁾ Weighted values exclude New Zealand dollar (NZD) liquid asset holdings in excess of NZD LCR of 100%, reflecting liquidity transferability considerations. The amount excluded during both the three months to 30 September 2020 and 30 June 2020 was on average \$6 billion.

⁽³⁾ APS 330 does not require unweighted amounts to be reported for these items.

⁽⁴⁾ Since 14 June 2020, modelling has been enhanced to more accurately reflect the stable nature of deposits covered by the Financial Claims Scheme.

Net Stable Funding Ratio

The Net Stable Funding Ratio (NSFR) 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 NSFR is 100%.

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.

The NSFR as at 30 September 2020 and 30 June 2020 is presented in Table 9.5B *Net Stable Funding Ratio Disclosure Template*, and is based on spot balances. The NSFR increased to 127% as at 30 September 2020 with \$555 billion of Available Stable Funding (ASF) available to meet \$438 billion of Required Stable Funding (RSF). The increase was primarily driven by increased ASF from deposits and TFF drawdowns and lower RSF from lower lending volumes.

9.5 Liquidity Disclosures (continued)

Table 9.5B: Net Stable Funding Ratio Disclosure Template

		As at 30 Sep 2020				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	59,148	1,717	-	19,171	80,037
2	of which: regulatory capital	59,148	1,717	-	19,171	80,037
3	of which: other capital instruments	-	-	-	-	-
4	Retail deposits and deposits from small business customers	205,160	73,110	514	56	257,095
5	of which: stable deposits	108,537	14,135	-	-	116,538
6	of which: less stable deposits	96,623	58,975	514	56	140,557
7	Wholesale funding	117,475	187,437	29,482	122,516	216,610
8	of which: operational deposits	70,488	-	-	-	35,244
9	of which: other wholesale funding	46,987	187,437	29,482	122,516	181,366
10	Liabilities with matching interdependent assets	-	-	-	-	-
11	Other liabilities	-	17,507	-	1,743	1,743
12	of which: NSFR derivative liabilities ⁽¹⁾			1,823		
13	of which: all other liabilities and equity not included in the above categories	-	15,684	-	1,743	1,743
14	Total ASF					555,485
Required Stable Funding (RSF) Item						
15a	High-quality liquid assets (HQLA) for NSFR purposes					4,500
15b	Alternative liquid assets (ALA)					8,051
15c	RBNZ securities					367
16	Deposits held at other financial institutions for operational purposes	-	-	-	-	-
17	Performing loans and securities	10,648	149,121	48,342	404,586	381,602
18	of which: performing loans to financial institutions secured by Level 1 HQLA	-	72,283	6,621	-	10,539
19	of which: performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	15	15,830	4,165	12,890	17,361
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):	10,615	50,998	30,265	126,482	154,814
21	of which: with a risk-weight of less than or equal to 35% under APS 112	-	-	-	11,720	7,618
22	of which: performing residential mortgages:	-	7,182	6,027	265,035	195,910
23	of which: with a risk-weight equal to 35% under APS 112	-	7,182	6,027	224,794	161,705
24	of which: securities that are not in default and do not qualify as HQLA, including exchange-traded equities	18	2,828	1,264	179	2,978
25	Assets with matching interdependent liabilities	-	-	-	-	-
26	Other assets	21,019	5,223	90	25,423	34,793
27	of which: physical traded commodities, including gold	509				433
28	of which: assets posted as initial margin for derivative contracts and contributions to default funds of central counterparties (CCPs) ⁽¹⁾				1,942	1,651
29	of which: NSFR derivative assets ⁽¹⁾				7,763	5,940
30	of which: NSFR derivative liabilities before deduction of variation margin posted ⁽¹⁾				14,180	2,836
31	of which: all other assets not included in the above categories	20,510	5,223	90	1,538	23,933
32	Off-balance sheet items ⁽¹⁾				171,082	8,948
33	Total RSF					438,261
34	Net Stable Funding Ratio (%)					127%

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

9.5 Liquidity Disclosures (continued)

		As at 30 Jun 2020				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	59,761	1,717	-	16,466	77,944
2	of which: regulatory capital	59,761	1,717	-	16,466	77,944
3	of which: other capital instruments	-	-	-	-	-
4	Retail deposits and deposits from small business customers	191,523	75,676	410	72	246,681
5	of which: stable deposits	100,682	14,539	-	-	109,460
6	of which: less stable deposits	90,841	61,137	410	72	137,221
7	Wholesale funding	111,895	218,368	31,457	114,413	213,370
8	of which: operational deposits	69,513	-	-	-	34,757
9	of which: other wholesale funding	42,382	218,368	31,457	114,413	178,613
10	Liabilities with matching interdependent assets	-	-	-	-	-
11	Other liabilities	-	19,188	-	1,336	1,336
12	of which: NSFR derivative liabilities ⁽¹⁾			5,180		
13	of which: all other liabilities and equity not included in the above categories	-	14,008	-	1,336	1,336
14	Total ASF					539,331
Required Stable Funding (RSF) Item						
15a	High-quality liquid assets (HQLA) for NSFR purposes					4,165
15b	Alternative liquid assets (ALA)					7,570
15c	RBNZ securities					410
16	Deposits held at other financial institutions for operational purposes	-	-	-	-	-
17	Performing loans and securities	11,398	144,159	46,996	424,555	394,363
18	of which: performing loans to financial institutions secured by Level 1 HQLA	-	64,635	5,174	10	9,060
19	of which: performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	18	21,648	3,405	14,454	19,422
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):	11,335	47,281	31,406	134,629	160,260
21	of which: with a risk-weight of less than or equal to 35% under APS 112	-	-	-	12,886	8,376
22	of which: performing residential mortgages:	-	6,956	5,987	275,081	202,355
23	of which: with a risk-weight equal to 35% under APS 112	-	6,956	5,987	234,792	168,110
24	of which: securities that are not in default and do not qualify as HQLA, including exchange-traded equities	45	3,639	1,024	381	3,266
25	Assets with matching interdependent liabilities	-	-	-	-	-
26	Other assets	21,423	2,764	117	33,771	34,229
27	of which: physical traded commodities, including gold	1,081				919
28	of which: assets posted as initial margin for derivative contracts and contributions to default funds of central counterparties (CCPs) ⁽¹⁾		1,986			1,687
29	of which: NSFR derivative assets ⁽¹⁾		8,885			3,705
30	of which: NSFR derivative liabilities before deduction of variation margin posted ⁽¹⁾		21,184			4,237
31	of which: all other assets not included in the above categories	20,342	2,764	117	1,716	23,681
32	Off-balance sheet items ⁽¹⁾		167,221			8,789
33	Total RSF					449,526
34	Net Stable Funding Ratio (%)					120%

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

Section 10

Glossary

Term	Description
Additional regulatory specific provisions	In line with APRA's July 2017 guidance "Provisions for regulatory purposes and AASB 9 Financial Instruments", regulatory specific provisions include collective provisions for facilities in Stage 2 with identified deterioration (that do not meet the two exception clauses per the APRA guidance), and Stage 3 in default. All other facilities are classified as general reserve for credit losses.
ADI	Authorised Deposit-taking Institution.
Advanced Internal Ratings-based approach (IRB)	The process used to estimate credit risk through the use of internally developed models to assess potential credit losses using the outputs from the probability of default, loss given default and exposure at default models.
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.
Alternative Liquid Assets (ALA)	Assets that qualify for inclusion in the numerator of the Liquidity Coverage Ratio in jurisdictions where there is insufficient supply of high-quality liquid assets in the domestic currency to meet the aggregate demand of banks with significant exposure in the domestic currency in the Liquidity Coverage Ratio framework. The Committed Liquidity Facility and Term Funding Facility provided by the Reserve Bank of Australia to ADIs are treated as an ALA in the Liquidity Coverage Ratio.
ANZSIC	Australian and New Zealand Standard Industrial Classification.
APRA	Australian Prudential Regulation Authority.
APS	Prudential Standards issued by APRA applicable to ADIs.
Available Stable Funding (ASF)	The portion of an ADI's capital and liabilities expected to be a reliable source of funds over a one-year time horizon.
Banking book	Exposures not contained in the trading book.
BCBS	Basel Committee on Banking Supervision.
BEAR	Banking Executive Accountability Regime.
BNZ	Bank of New Zealand.
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.
Common Equity Tier 1 capital ratio	CET1 capital divided by risk-weighted assets.
Committed Liquidity Facility (CLF)	A facility provided by the Reserve Bank of Australia to certain ADIs to assist them in meeting the Basel III liquidity requirements.
CPS	Prudential Standards issued by APRA applicable to regulated entities, including ADIs.
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.
Default fund	Clearing members' funded or unfunded contributions towards, or underwriting of, a central counterparty's mutualised loss sharing arrangements.
D-SIB	Domestic Systemically Important Bank.
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 Internal Ratings-based approach, EFC is limited to the collateral items detailed in APS 112 <i>Capital Adequacy: Standardised Approach to Credit Risk</i> . Recognition of EFC is subject to the minimum conditions detailed in APS 112.
Exposure at Default (EaD)	An estimate of the credit exposure amount outstanding if an obligor defaults. EaD is presented net of eligible financial collateral.
Extended Licensed Entity	The ADI and any APRA approved subsidiaries assessed as effectively part of a single 'stand-alone' entity, as defined in APS 222 <i>Associations with Related Entities</i> .
General Reserve for Credit Losses (GRCL)	An estimate of the reasonable and prudent expected credit losses over the remaining life of the portfolio of 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 exposures and provisions for facilities in default but for which no loss is expected (which are reported as additional regulatory specific provisions). Where the GRCL (regulatory reserve) is greater than the accounting provision, the difference is covered with an additional top-up, created through an appropriation of retained profits to a non-distributable reserve.
High-quality Liquid Assets (HQLA)	Consists primarily of cash, deposits with central banks, Australian government and semi-government securities and securities issued by foreign sovereigns as defined in APS 210 <i>Liquidity</i> .
ICAAP	Internal Capital Adequacy Assessment Process.
ILAAP	Internal Liquidity Adequacy Assessment Process.
Internal Model Approach (IMA) - Non-traded Market Risk	The approach used in the assessment of non-traded market risk. The Group uses, under approval from APRA, the IMA to calculate interest rate risk in the banking book for all transactions in the banking book.
Internal Model Approach (IMA) - Traded Market Risk	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.
IRRBB	Interest rate risk in the banking book.
Liquidity Coverage Ratio (LCR)	A metric that measures the adequacy of high-quality liquid assets available to meet net cash outflows over a 30-day period during a severe liquidity stress scenario.
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.
NAB	National Australia Bank Limited ABN 12 004 044 937.
Net Stable Funding Ratio (NSFR)	A ratio of the amount of available stable funding to the amount of required stable funding.
Net write-offs	Write-offs, net of recoveries.
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. For eligible COVID-19 payment deferrals granted in respect of otherwise performing loans, the counting of days past due is stopped when the repayment deferral is granted in accordance with APRA guidance.
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.
RAS	Risk Appetite Statement.

Glossary

Term	Description
RBA	Reserve Bank of Australia.
RBNZ	Reserve Bank of New Zealand.
Regulatory expected loss (EL)	A calculation of the estimated loss that may be experienced over the next 12 months. Regulatory expected loss calculations are based on the probability of default, loss given default and exposure at default values of the portfolio at the time of the estimate which includes stressed loss given default for economic conditions. As such, regulatory expected loss is not an estimate of long-run average expected loss.
Required Stable Funding (RSF)	A function of the liquidity characteristics and residual maturities of an ADI's assets and off-balance sheet exposures.
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.
Securitisation exposures	Securitisation exposures include the following exposure types: <ul style="list-style-type: none"> - liquidity facilities: facilities provided to securitisation vehicles for the primary purpose of funding any timing mismatches between receipts of funds on underlying exposures and payments on securities issued by the securitisation vehicle or to cover the inability of the securitisation vehicle to roll-over securities due to market disruption - warehouse facilities: lending facilities provided to securitisation vehicles for the financing of exposures in a pool. These may be on a temporary basis pending the issue of securities or on an on-going basis - securities: holding of debt securities issued by securitisation vehicles - derivatives: derivatives provided to securitisation vehicles, other than for credit risk mitigation purposes.
SME	Small and medium sized enterprises.
SPV	Special purpose vehicle.
Standardised approach	An alternative approach to the assessment of credit, operational and traded market risk whereby an ADI uses external rating agencies to assist in assessing credit risk and/or the application of specific values provided by regulators to determine risk-weighted assets.
Term Funding Facility (TFF)	A facility provided by the Reserve Bank of Australia to certain ADIs to support lending to Australian businesses.
Tier 1 capital ratio	Tier 1 capital divided by risk-weighted assets.
Total capital ratio	Total capital divided by risk-weighted assets.
Trading book	Positions in financial instruments, including derivative products and other off-balance sheet instruments, that are held either with a trading intent or to hedge other elements of the trading book.
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.

Section 11

Reference to APS 330 Tables

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