

Basel III Pillar 3

Capital Adequacy and Risk
Disclosures as at 30 June 2020



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The release of this announcement was authorised by Kara Nicholls, Group Company Secretary.

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Introduction

1 Introduction

The Commonwealth Bank of Australia (CBA) is an Authorised Deposit-taking Institution (ADI) regulated by the Australian Prudential Regulation Authority (APRA) under the authority of the Banking Act 1959.

This document is prepared for CBA and its subsidiaries (the Group) in accordance with a Board approved policy and APRA Prudential Standard APS 330 "Public Disclosure" (APS 330). It presents information on the Group's capital adequacy and Risk Weighted Assets (RWA) calculations for credit risk including securitisation, traded market risk, Interest Rate Risk in the Banking Book (IRRBB) and operational risk.

This document also presents information on the Group's leverage and liquidity ratios and countercyclical capital buffer (CCyB) in accordance with prescribed methodologies.

The Group is required to report its assessment of capital adequacy on a Level 2 basis. Level 2 is defined as the Consolidated Banking Group excluding the general insurance and funds management businesses and entities through which securitisation of Group assets is conducted.

The Group is predominantly accredited to use the Advanced Internal Ratings-based approach (AIRB) for credit risk and the Advanced Measurement Approach (AMA) for operational risk. The Group is also required to assess its traded market risk and IRRBB requirement under Pillar 1 of the Basel capital framework.

The Group engaged the external auditor (PwC) to perform assurance procedures over the Pillar 3 report in accordance with the Australian Standard on Assurance Engagements ASAE 3000 "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information". PwC have provided recommendations to enhance the internal controls related to the calculation of RWA and the Group has an action plan in place to implement these recommendations.

This Pillar 3 document is available on the Group's corporate website: Commbank.com.au/regulatorydisclosures.

The Group in Review

Group Capital Ratios

As at 30 June 2020, the Group's Basel III Common Equity Tier 1 (CET1), Tier 1 and Total Capital ratios as measured on an APRA basis were 11.6%, 13.9% and 17.5% respectively. The Basel III CET1 ratio was 17.4% on an internationally comparable basis as at 30 June 2020.

Leverage Ratio

The Group's leverage ratio, which is defined as Tier 1 Capital as a percentage of total exposures, was 5.9% at 30 June 2020 on an APRA basis and 6.7% on an internationally comparable basis.

Liquidity Ratio

The Liquidity Coverage Ratio (LCR) requires Australian ADIs to hold sufficient liquid assets to meet 30 day net cash outflows projected under an APRA prescribed stress scenario. The Group maintained an average LCR of 155% in the June 2020 quarter, and a spot LCR of 145% as at 30 June 2020. On 19 March 2020, the Reserve Bank of Australia (RBA) announced the establishment of a

three year Term Funding Facility (TFF) providing eligible ADIs with fixed-rate funding at 0.25%. As at 30 June 2020, the Group has drawn \$1.5 billion of its total available TFF allocation of \$26.6 billion, composed of \$19.1 billion of Initial Allowance and \$7.5 billion of Additional Allowance. As at 7 August 2020, the Group's total available allocation was \$31.4 billion.

Net Stable Funding Ratio

The Net Stable Funding Ratio (NSFR) is the ratio of the amount of Available Stable Funding (ASF) to the amount of Required Stable Funding (RSF). Factors prescribed by APRA are used to determine the stable funding requirement of assets and the stability of alternative sources of funding. The Group's NSFR was 120% at 30 June 2020.

COVID-19 Impacts

The Group has introduced a number of support measures for customers impacted by COVID-19, which include loan repayment deferral arrangements and the origination of loans under the Government's Small and Medium Enterprises (SME) Guarantee Scheme. Further details of these measures are provided on page 19.

APRA made several announcements in response to the economic environment resulting from COVID-19. Further details of the temporary regulatory measures are provided on page 5.

Policy Framework

The Group regularly benchmarks and aligns its policy framework against existing prudential and regulatory standards. Potential developments in Australian and international standards, and global best practice are also considered.

The Group continues to monitor and take actions to enhance and strengthen its risk culture. The Group has a formal Risk Management Approach (RMA) that creates clear obligations and transparency over risk management and strategy decisions. A risk accountability model (Three Lines of Accountability) requires business management to operate responsibly by taking well understood and managed risks that are appropriately and adequately priced.

The application is reflected in the Group's overall asset quality and capital position. In particular, the Group remains in a small group of banking institutions with an AA-/Aa3 credit rating. To maintain this strength, the Group continues to invest in its risk systems and management processes.

The Group's capital forecasting process and capital plans are in place to ensure a sufficient capital buffer above minimum levels is maintained at all times. The Group manages its capital by regularly and simultaneously considering regulatory capital requirements, rating agency views on the capital required to maintain the Group's credit rating, the market response to capital levels and stress testing. These views then cascade into consideration of the target capital level. The Group's management of its capital adequacy is supported by robust capital management processes applied in each Business Unit (BU). The results are integrated into the Group's risk-adjusted performance and pricing processes.

	30 Jun 20	31 Dec 19	30 Jun 19
	%	%	%
Summary Group Capital Adequacy Ratios (Level 2)			
Common Equity Tier 1	11.6	11.7	10.7
Tier 1	13.9	14.1	12.7
Tier 2	3.6	3.3	2.8
Total Capital (APRA)	17.5	17.4	15.5
Common Equity Tier 1 (Internationally Comparable)¹	17.4	17.5	16.2

¹ Analysis aligns with the 13 July 2015 APRA study titled "International capital comparison study".

Capital Framework

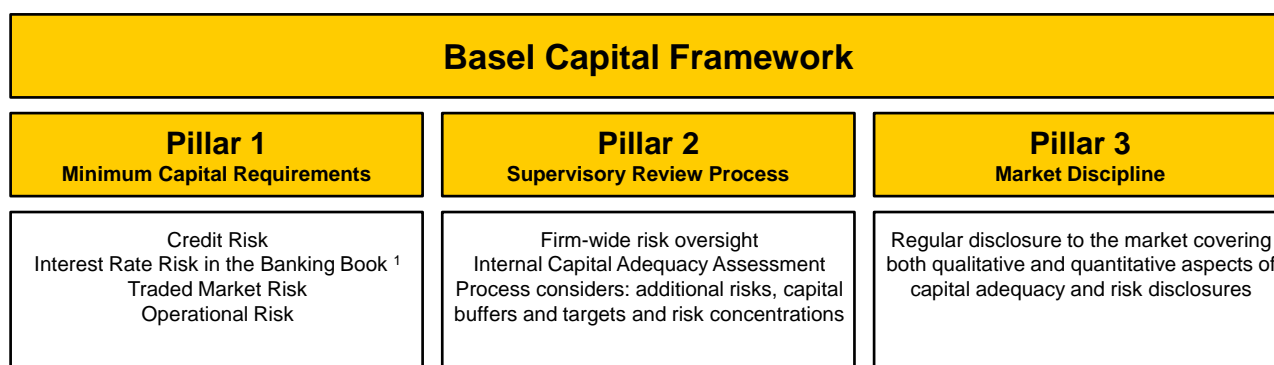
2 Regulatory Capital Framework Overview

The Group is required to report the calculation of RWA and the assessment of capital adequacy on a Level 2 basis (see section 3, page 4 for further details). APRA has set minimum regulatory capital requirements for ADIs.

These requirements define what is acceptable as capital and provide for methods of measuring the risks incurred by banks so

that the “need” for capital can be compared to the amount of capital “at hand”

The Basel Regulatory Capital Framework is based on “three pillars” as summarised below.



¹ Applicable to Pillar 1 in Australia only (Pillar 2 elsewhere).

Pillar 1 – Minimum Capital Requirements

Basel II

In December 2007, APRA granted advanced Basel II accreditation to the Group to calculate RWA and the assessment of capital adequacy in accordance with Pillar 1.

Adoption of advanced methodologies prescribed under Basel II was effective from 1 January 2008.

As a result of receiving advanced Basel II accreditation, the Group predominantly uses the AIRB approach for credit risk and the AMA for operational risk in the calculation of RWA. Portfolios that attract the Standardised approach are discussed in section 8.4 “Portfolios Subject to Standardised and Supervisory Risk Weights” (page 37).

The Group incorporates measured IRRBB in its regulatory capital calculations with effect from 1 July 2008, as required by APRA for Australian ADIs (this is not a Pillar 1 requirement in other jurisdictions).

The Basel II enhancements announced in July 2009, relating to securitisation and market risk, were implemented on 1 January 2012. These enhancements are commonly referred to as Basel 2.5.

Basel III

APRA has implemented a set of capital, liquidity and funding reforms based on the Basel Committee on Banking Supervision (BCBS) “Basel III” framework. The objectives of the reforms are to increase the quality, consistency and transparency of capital, to enhance the risk coverage framework, and to reduce systemic and pro-cyclical risk.

The APRA prudential standards require a minimum CET1 ratio of 4.5% effective from 1 January 2013. An additional CET1 capital conservation buffer of 3.5%, inclusive of a Domestic Systemically Important Bank (D-SIB) requirement of 1% and a CCyB of 0% (effective from 1 January 2016), brings the CET1 requirement to at least 8%.

In January 2019, APRA announced that the CCyB for Australian exposures will remain at 0%. The Group has limited exposures to those offshore jurisdictions in which a CCyB in excess of 0% has been imposed. Refer to Appendix 13.4 for further details.

Pillar 2 – Supervisory Review Process

ICAAP

Under Pillar 2, APRA requires each bank to have in place and report confidentially its Internal Capital Adequacy Assessment Process (ICAAP). The Group updates its ICAAP annually. The ICAAP document provides details on:

- The Group’s capital position and regulatory minima;
- A three year capital forecast;
- Stress testing and contingent capital planning;
- Key capital management policies; and
- Details on key processes and supporting frameworks.

Pillar 3 – Market Discipline

Disclosures

To enhance transparency in Australian financial markets, APRA established a set of requirements under APRA’s ADI Prudential Standards (APS), specifically APS 330 for the public disclosure of information on the risk management practices and capital adequacy of ADIs (pursuant to Pillar 3).

Pillar 3 qualitative and quantitative disclosures are made in detail in this document as part of the Group’s 30 June 2020 financial year reporting. Detailed quantitative information is released at the Group’s December half year with summarised quantitative information released for March and September quarters. These reports are published on the Group’s corporate website, together with the Group’s APS 330 public disclosure of capital instruments and remuneration.

Commbank.com.au/regulatorydisclosures

Scope of Application

3 Scope of Application

This document has been prepared in accordance with Board approved policy and reporting requirements set out in APS 330.

APRA adopts a tiered approach to the measurement of an ADI's capital adequacy:

- **Level 1:** the Parent Bank (CBA) and offshore branches (the Bank) and APRA approved Extended Licensed Entities (ELE);
- **Level 2:** the Consolidated Banking Group excluding the insurance and funds management businesses and the entities through which securitisation of Group assets is conducted; and
- **Level 3:** the conglomerate group including the Group's insurance and funds management businesses¹ (the Group).

The Group is required to report its assessment of capital adequacy on a Level 2 basis. The head of the Level 2 Group is the Parent Bank. Additional disclosure of capital ratios relating to material ADIs within the Group together with CBA's own Level 1 capital ratios are included under APS 330 Table 6g of this report (page 7).

ASB Bank Limited (ASB) operates under Advanced Basel III status and is subject to regulation by the Reserve Bank of New Zealand (RBNZ). The RBNZ applies a similar methodology to APRA in calculating regulatory capital requirements.

CommBank Europe Ltd (CBE) and PT Bank Commonwealth (PTBC) use Standardised Basel III methodology.

On 1 November 2019, the Group entered into a joint cooperation agreement (JCA) with AIA Group Limited (AIA) in respect of its Australian life insurance business, which includes CommInsure Life and certain affiliated companies. Under the JCA, control over CommInsure Life together with all associated economic interests (excluding BoComm Life) was transferred to AIA. As a result, CommInsure Life was deconsolidated and derecognised on 1 November 2019.

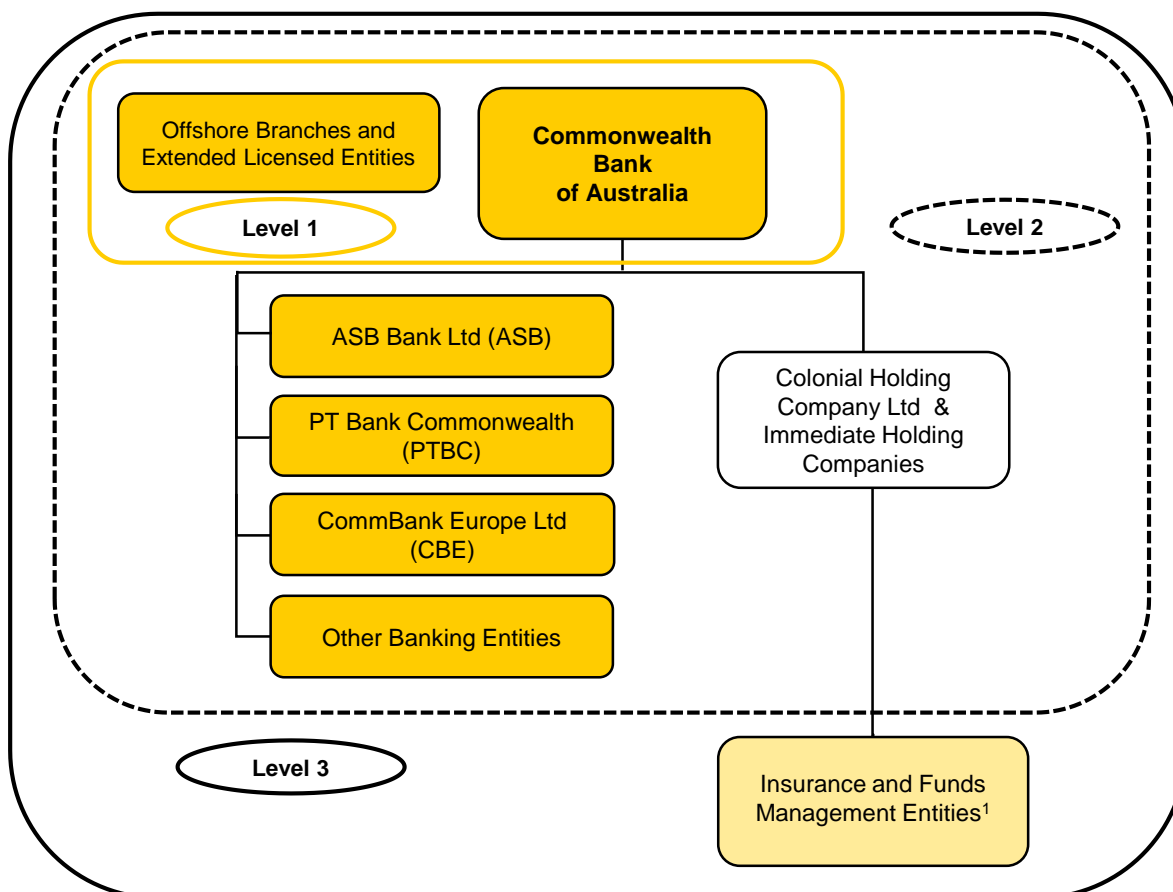
In June 2020 the Group completed the divestment of its 80% equity interest in its Indonesian life insurance business, PT Commonwealth Life.

Restrictions on transfer of funds or regulatory capital within the Group

The transfer of regulatory capital and funding within the Group is subject to restrictions imposed by local regulatory requirements. In particular, APS 222 "Associations with Related Entities" establishes prudential limits on the level of exposure that the Bank may have to a related entity.

The Bank and all of the subsidiaries of the Group are adequately capitalised. With the exception of RBNZ imposed restrictions on the payment of dividends (refer to page 6), there are no restrictions or other major impediments on the transfer of funds within the Group. There are no capital deficiencies in non-consolidated (regulatory) subsidiaries in the Group.

APS 330 reporting structure



¹ The Group divested its life insurance businesses during the financial year. A detailed list of non-consolidated entities is provided in Appendix 13.5.

Capital

4 Capital

Capital Adequacy

The Group actively manages its capital to balance the perspectives of various stakeholders (regulators, rating agencies and shareholders). This is achieved by optimising the mix of capital, while maintaining adequate capital ratios throughout the financial year. The Group's capital is managed within a formal framework, its ICAAP, which is an integration of risk, financial and capital management processes.

APRA advises the Group of its Prudential Capital Ratio (PCR), which represents the regulatory minimum CET1, Tier 1 and Total Capital ratios that the Group is required to maintain at all times. In order to ensure there is no breach of these minimum levels, APRA expects the Group to maintain a prudent buffer over these prescribed minimum levels. The PCR is subject to an ongoing review by APRA and is formally reassessed on an annual basis. The Group is required to inform APRA immediately of any breach or potential breach of its PCR, including details of remedial action taken or planned to be taken.

The Group has a range of instruments and methodologies available to effectively manage capital. These include share issues and buybacks, dividend and Dividend Reinvestment Plan (DRP) policies, hybrid capital raising and dated and undated subordinated debt issues. All major capital related initiatives require approval by the Board.

The Group's capital position is monitored on a continuous basis and reported monthly to the Executive Leadership Team of the Group and at regular intervals throughout the year to the Board Risk and Compliance Committee. Capital forecasts are updated on a continuous basis and a detailed capital plan is presented to the Board annually.

Capital Position

The Group has a strong capital position, with the June 2020 CET1 ratio (APRA) of 11.6%, above APRA's 'unquestionably strong' benchmark of 10.5% and well above the prudential minimum of 8%. The CET1 ratio was consistently well in excess of regulatory minimum capital adequacy requirements at all times throughout the full year ended 30 June 2020.

After allowing for the impact of the 2020 interim dividend in which the DRP was neutralised (-79 basis points) and provisions for COVID-19 loan losses and additional customer remediation costs (-43 basis points), the CET1 ratio increased by an additional 112 basis points in the half year ended 30 June 2020. This was driven by capital generated from earnings (+95 basis points), the receipt of further sale proceeds as part of the divestment of the Australian life insurance business, Commlnure Life (+19 basis points) and the completion of the divestment of the 80% equity interest in its life insurance business, PT Commonwealth Life (+7 basis points) and other movements (+5 basis points). This was partly offset by higher RWA (-14 basis points), as detailed on page 10.

Capital Initiatives

The following significant capital initiatives were undertaken during the year:

Common Equity Tier 1 Capital

- The DRP in respect of the 2019 final dividend was satisfied in full by the on-market purchase of shares. The participation rate for the 2019 final DRP was 15.0%; and
- The DRP in respect of the 2020 interim dividend was satisfied in full by the on-market purchase of shares. The participation rate for the interim 2020 DRP was 14.7%.

Additional Tier 1 Capital

- In November 2019, the Bank issued AUD1.65 billion of CommBank PERLS XII Capital Notes (PERLS XII) that are Basel III compliant Additional Tier 1 capital.

Tier 2 Capital

- In September 2019, the Bank issued two USD1.25 billion subordinated notes and an AUD100 million subordinated note that are all Basel III compliant Tier 2 capital;
- In March 2020, the Bank issued an AUD280 million subordinated note that is Basel III compliant Tier 2 capital; and
- In May 2020, the Bank issued an AUD210 million subordinated note that is Basel III compliant Tier 2 capital.

Unquestionably Strong Capital Ratios

In July 2017 APRA released an information paper establishing the quantum of additional capital required for the Australian banking sector to have capital ratios that are unquestionably strong.

APRA's expectation was that the Australian major banks would be operating within a CET1 ratio of 10.5% or more by 1 January 2020. As at 30 June 2020, the Group's CET1 ratio was above this benchmark at 11.6%, and was above the 10.5% benchmark for the majority of the 2020 financial year. On 19 March 2020, APRA advised banks that during the period of disruption, caused by the COVID-19 pandemic, it would not be concerned if banks temporarily operated below the 10.5% CET1 ratio benchmark while still remaining above various minimum capital requirements.

In calendar years 2018 and 2019, APRA issued a number of consultation documents to propose revisions to the overall design of the capital framework. Further detail on the proposed APRA reforms is provided on page 6. APRA has advised that the proposed changes to the capital framework have been accommodated within the 10.5% CET1 target set by APRA in July 2017.

APRA's COVID-19 Capital Announcements

On 19 March 2020, APRA announced temporary changes to its expectations regarding bank capital ratios, to ensure banks are well positioned to continue to provide credit to the economy in the challenging environment caused by COVID-19. APRA advised that, provided banks are able to meet their minimum capital requirements, the capital buffers built up over recent years to meet the 10.5% unquestionably strong benchmark CET1 capital ratio can be utilised to facilitate ongoing lending to the economy during the period of disruption caused by COVID-19.

The Group has introduced a number of support measures for customers impacted by COVID-19, which include loan repayment deferrals to retail and business customers, and the origination of loans under the Government's SME Guarantee Scheme.

On 23 March 2020 APRA announced its regulatory approach to COVID-19 customer support measures being offered by banks in the current environment. APRA confirmed that the Government SME Guarantee Scheme will be regarded as an eligible guarantee by the government for risk weighting purposes. In relation to loan deferrals, APRA confirmed that where a borrower was otherwise performing, and their loan was subject to repayment deferrals as part of a COVID-19 support package, the repayment deferrals would not be treated as a period of arrears and the loan would not be regarded as restructured. On 8 July 2020 APRA advised that this regulatory

Capital (continued)

APRA's COVID-19 Capital Announcements (continued)

approach would be extended to cover a maximum period of 10 months from the start of a repayment deferral, or until 31 March 2021, whichever comes first. Further details on the COVID-19 customer support packages are provided on page 19.

In addition, on 7 April 2020, APRA released a letter to ADIs and insurers, setting out APRA's guidance on capital management during the period of significant disruption caused by the COVID-19 pandemic. APRA's expectation is that discretionary capital distributions should be limited over the coming months. APRA noted that where dividends are approved, this should only be on the basis of robust stress testing results that have been discussed with APRA and should nevertheless be at a materially reduced level. Dividend payments should also be offset to the extent possible through the use of capital management initiatives.

On 29 July 2020, APRA released updated guidance on capital management, in which it noted that ADIs should continue to take a measured approach to capital distributions to maintain caution in the face of ongoing uncertainty and heightened economic risk. APRA reiterated that ADIs should use stress testing to inform decisions on dividends and other capital actions, as well as to assess their lending capacity under a range of different scenarios. For 2020, APRA expects that ADIs will retain at least half of their earnings, and actively use dividend reinvestment plans and/or other capital management initiatives to at least partially offset the diminution in capital from distributions.

Regulatory Reforms

APRA

In February 2018, APRA released "Discussion paper – Revisions to the capital framework for authorised deposit-taking institutions" in response to the BCBS release of the "Basel III: Finalising post-crisis reforms" in December 2017.

APRA's proposals include:

- Increased capital requirements for investment and interest only home loan exposures, and an amendment to the correlation factor to dampen procyclicality of risk weights;
- Higher correlation factors to apply in the other retail asset class (including credit cards);
- Large corporate and financial institutions will be subject to the Foundation Internal Ratings-based approach;
- Mandated Loss Given Default (LGD) and Exposure at Default (EAD) estimates for certain non-retail portfolios;
- Replacing the operational risk AMA with a single risk sensitive standardised approach for all banks; and
- Implementation of a 72.5% output floor (without transitional phasing).

In August 2018, APRA released "Discussion paper – improving transparency, comparability and flexibility of the ADI capital framework". The focus of the proposal is presentation of capital ratios to increase international comparability, transparency and flexibility of the capital framework without altering the quantum and risk sensitivity of capital ratios.

In June 2019, APRA released draft prudential standards on the standardised approach to measuring credit risk and operational RWA. In addition, APRA is proposing a simpler method for calculating capital requirements for residential mortgages measured under the Internal Ratings-based (IRB) approach.

In July 2019, APRA released its response to the submissions for the November 2018 "Discussion Paper – Increasing the loss-absorbing capacity of ADIs to support orderly resolution". APRA confirmed that the Australian loss-absorbing capacity (LAC) regime will be established under the existing capital framework. For D-SIBs, such as CBA, APRA will require an additional Total Capital requirement of 3% of RWA, effective from 1 January 2024. APRA further noted

that its long term target of 4% to 5% of LAC remains unchanged and may consider feasible alternative methods for raising the additional 1% to 2%, in consultation with industry and other stakeholders.

In September 2019, APRA released draft prudential standards on the measurement of IRRBB. APRA is proposing to standardise aspects of the internal modelling approach, remove the basis risk add-on and extend risk management requirements to all ADIs.

In October 2019, APRA released a consultation paper on APS 111 "Capital Adequacy: Measurement of Capital" (APS 111). The consultation paper outlines APRA's proposal to change its existing approach on equity exposures to banking and insurance subsidiaries of ADIs. APRA has proposed that each individual equity exposure will be risk weighted at 250% up to 10% of the ADI's Level 1 CET1 capital, with any excess above that threshold to be deducted from CET1 capital.

In March 2020, APRA announced the deferral of all scheduled capital framework reforms by one year. All reforms excluding APS 111 and APS 116 are scheduled for implementation on 1 January 2023. This deferral supports ADIs in maintaining operations and supporting customers in response to COVID-19. Implementation of APS 111 and APS 116 "Capital Adequacy: Market Risk" (APS 116) is scheduled for 1 January 2021 and 1 January 2024 respectively. AMA banks will be allowed to opt-in to earlier implementation of APS 115: "Capital Adequacy: Operational Risk" from 1 January 2022.

Basel Committee on Banking Supervision (BCBS)

In January 2019, the BCBS released "Minimum capital requirements for market risk" which finalised changes to the identification and measurement of market risk under both the standardised approach and the internal model approach. APRA is yet to commence consultation on APS 116.

Reserve Bank of New Zealand (RBNZ)

In December 2019, the RBNZ confirmed that the RWA of IRB banks, such as ASB, will increase to approximately 90% of that required under a standardised approach. In addition, for those banks deemed systemically important, including ASB, the Tier 1 capital requirement will increase to 16% of RWA, of which 13.5% must be in the form of CET1 capital. Tier 2 capital will remain in the framework, and can contribute up to 2% of the 18% minimum Total Capital ratio. Existing Additional Tier 1 and Tier 2 contingent instruments issued by New Zealand banks will no longer be eligible under RBNZ's new capital criteria and will be phased out over the transition period of 7 years. In March 2020, the RBNZ announced deferral of the start date of capital framework reforms until 1 July 2021.

On 2 April 2020, the RBNZ announced a freeze on the distribution of dividends by banks in New Zealand due to COVID-19. Dividends from the Bank's New Zealand subsidiary, ASB, only affect the Group's Level 1 CET1 capital ratio. As at 30 June 2020, the Group's Level 1 CET1 capital ratio was 11.9%, well above APRA's unquestionably strong benchmark, and as such, the Group is well placed to absorb the suspension of dividends.

The RBNZ has provided concessions similar to those provided by APRA for loan deferrals granted in response to COVID-19.

Other Reforms

In July 2019, the Group implemented the revised standardised approach to counterparty credit risk (SA-CCR) and AASB 16 Leases (AASB 16). The implementation of SA-CCR resulted in a decrease of the Bank's CET1 ratio (APRA) of 12 basis points and the implementation of AASB 16 resulted in an 11 basis point decrease.

In August 2019, APRA released the final APS 222 "Associations with Related Entities". The revised standard is intended to strengthen the ability of ADIs to monitor, limit and control risk arising from transactions and other associations with related entities. These new requirements will be effective from 1 January 2022.

Capital (continued)

Group Regulatory Capital Position

	30 Jun 20	31 Dec 19	30 Jun 19
	%	%	%
Summary Group Capital Adequacy Ratios (Level 2)			
Common Equity Tier 1	11.6	11.7	10.7
Tier 1	13.9	14.1	12.7
Tier 2	3.6	3.3	2.8
Total Capital (APRA)	17.5	17.4	15.5
Common Equity Tier 1 (Internationally Comparable)¹	17.4	17.5	16.2

¹ Analysis aligns with the 13 July 2015 APRA study titled "International capital comparison study".

	APRA 30 Jun 20	APRA 31 Dec 19	APRA 30 Jun 19
	\$M	\$M	\$M
Group Regulatory Capital Position			
Ordinary share capital and treasury shares ¹	38,182	38,180	38,214
Reserves	2,668	1,903	3,144
Retained earnings	30,886	30,808	28,045
Non-controlling interests	–	–	–
Common Equity Tier 1 Capital before regulatory adjustments	71,736	70,891	69,403
Common Equity Tier 1 regulatory adjustments	(19,163)	(18,511)	(21,036)
Common Equity Tier 1 Capital	52,573	52,380	48,367
Additional Tier 1 Capital	10,841	10,838	8,988
Tier 1 Capital	63,414	63,218	57,355
Tier 2 Capital	16,429	14,735	12,750
Total Capital	79,843	77,953	70,105
Risk Weighted Assets	454,948	449,154	452,762

¹ Inclusive of treasury shares of \$51 million (31 Dec 19: \$54 million, 30 Jun 19: \$194 million) held by the Group's eligible employee share scheme trusts and the Group's life insurance operations (prior to the deconsolidation of CommInsure Life on 1 November 2019).

Further details on the composition of the Group's capital are detailed in Appendix 13.1.

APS 330 Table 6g – Capital Ratios – Level 1 and Major Subsidiaries

	30 Jun 20	31 Dec 19	30 Jun 19
	%	%	%
Significant Group ADIs			
CBA Level 1 CET1 Capital ratio	11.9	12.1	11.2
CBA Level 1 Tier 1 Capital ratio	14.4	14.6	13.1
CBA Level 1 Total Capital ratio	18.1	18.0	16.1
ASB CET1 Capital ratio	11.5	11.7	11.4
ASB Tier 1 Capital ratio	13.3	13.5	13.2
ASB Total Capital ratio	14.0	14.2	14.0

	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
CBA Level 1			
Common Equity Tier 1 Capital	52,283	52,629	47,398
Tier 1 Capital	63,124	63,467	55,430
Tier 2 Capital	16,084	14,507	12,507
Total Capital	79,208	77,974	67,937
Risk Weighted Assets	438,345	433,275	422,354

	30 Jun 20	31 Dec 19	30 Jun 19
	NZ\$M	NZ\$M	NZ\$M
ASB Banking Group			
Common Equity Tier 1 Capital	6,496	6,651	6,404
Tier 1 Capital	7,496	7,651	7,404
Tier 2 Capital	433	429	430
Total Capital	7,929	8,080	7,834
Risk Weighted Assets	56,542	56,784	56,073

Capital (continued)

Regulatory Capital Frameworks Comparison

The APRA Basel III capital requirements are more conservative than those of the BCBS, leading to lower reported capital ratios.

In July 2015, APRA published a study on the calculation of internationally comparable capital by Australian banks entitled "International capital comparison study" (APRA study). As at 30 June 2020, the Group's internationally comparable CET1, Tier 1 and Total Capital ratios were 17.4%, 20.4% and 24.9% respectively.

The basis of this analysis aligns with the APRA study. The following table provides details on the differences, as at 30 June 2020, between the APRA Basel III capital requirements and the internationally comparable capital ratios.

Item	APRA Study		CET1 %	Tier 1 %	Total Capital %
	Reference	Description of Adjustment			
Basel III (APRA)			11.6	13.9	17.5
Equity investments	Appendix 1 Items 1, 2, 4	Balances below prescribed threshold are risk weighted, compared to a 100% CET1 deduction under APRA's requirements.	0.8	0.8	0.7
Capitalised expenses	Appendix 1 Item 5	Balances are risk weighted, compared to a 100% CET1 deduction under APRA's requirements.	0.1	0.1	0.1
Deferred tax assets	Appendix 1 Item 3	Balances below prescribed threshold are risk weighted, compared to a 100% CET1 deduction under APRA's requirements.	0.5	0.4	0.4
IRRBB RWA	3.3.2	APRA requires capital to be held for IRRBB. The BCBS does not have any capital requirement.	0.3	0.4	0.4
Residential mortgages	3.3.1	LGD of 15%, compared to the 20% LGD floor under APRA's requirements and adjustments for higher correlation factor applied by APRA for Australian residential mortgages.	2.3	2.7	3.4
Other retail standardised exposures	3.3.6	Risk weighting of 75%, rather than 100% under APRA's requirements.	–	0.1	0.1
Unsecured non-retail exposures	3.3.3	LGD of 45%, compared to the 60% or higher LGD under APRA's requirements.	0.4	0.5	0.6
Non-retail undrawn commitments	3.3.4	Credit conversion factor of 75%, compared to 100% under APRA's requirements.	0.4	0.4	0.5
Specialised lending	3.3.5	Use of AIRB PDs and LGDs for income producing real estate and project finance exposures, reduced by application of a scaling factor of 1.06. APRA applies higher risk weights under a supervisory slotting approach, but does not require the application of the scaling factor.	0.9	1.0	1.2
Currency conversion	3.3.7	Increase in the A\$ equivalent concessional threshold level for small business retail and SME corporate exposures.	0.1	0.1	0.1
Subtotal¹			17.4	20.4	25.0
Basel III non-compliant instruments		Removal of Basel III non-compliant Tier 1 and Tier 2 instruments that are currently subject to transitional rules.	–	–	(0.1)
Basel III (Internationally Comparable - aligns with APRA study)			17.4	20.4	24.9

¹ Represents ratios prior to adjustments made for non-compliant Basel III Tier 1 and Tier 2 Capital Instruments. This value is used in determining leverage ratio (internationally comparable) as determined on page 9.

The above calculations do not include the impact of a Basel I capital floor, which was introduced as a transitional measure as part of the implementation of Basel II. The Australian banks have now fully implemented the existing Basel III requirements and, therefore, it is difficult to calculate the impact of such a floor. APRA concluded in the APRA study that it is difficult to make adjustments for the floor in internationally comparable calculations at this time but the inclusion of a floor could reduce internationally comparable ratios by a material amount.

The Group's internationally comparable CET1 ratio quoted above does not take into consideration the concessional treatment advocated by the BCBS in its 3 April 2020 report "Measures to reflect the impact of COVID-19". Applying the transitional arrangements for expected credit loss accounting under AASB 9 *Financial Instruments* (AASB 9) could result in an uplift to the Group's 30 June 2020 internationally comparable CET1 ratio of up to 30 basis points.

Leverage Ratio

5 Leverage Ratio

The Group's leverage ratio, defined as Tier 1 Capital as a percentage of total exposures, was 5.9% at 30 June 2020 on an APRA basis and 6.7% on an internationally comparable basis. The ratio decreased 20 basis points on an APRA basis from 31 December 2019, driven by a 3% increase in exposures.

In November 2018, APRA released draft prudential and reporting standards, including changes to the definition of exposures

related to derivatives and off Balance Sheet items and advocating a minimum leverage ratio requirement of 3.5% for IRB banks.

On 30 March 2020, APRA announced it was deferring the scheduled implementation of the Basel III reforms in Australia by one year. As a result the new leverage ratio requirements will now be applicable from 1 January 2023.

Summary Group Leverage Ratio ¹	30 Jun 20	31 Mar 20	31 Dec 19	30 Sep 19	30 Jun 19
Tier 1 Capital (\$M)	63,414	61,142	63,218	57,941	57,355
Total Exposures (\$M) ²	1,073,131	1,102,574	1,040,423	1,051,716	1,023,181
Leverage Ratio (APRA) (%)	5.9	5.5	6.1	5.5	5.6
Leverage Ratio (Internationally Comparable) (%) ³	6.7	6.4	7.0	6.4	6.5

1 Refer to Appendix 13.2 for further details on the composition of the leverage ratio.

2 Total Exposures is the sum of on Balance Sheet exposures, derivatives, Securities Financing Transactions (SFTs), and off Balance Sheet exposures, net of any Tier 1 regulatory deductions, as outlined in APS 110 "Capital Adequacy" (APS 110). Refer to Appendix 13.2 for the calculation of the 30 June 2020 exposures.

3 The Tier 1 Capital included in the calculation of the internationally comparable leverage ratio aligns with the APRA study and includes Basel III non-compliant Tier 1 instruments that are currently subject to transitional rules.

Risk Weighted Assets

6 Risk Weighted Assets

RWA are calculated using the AIRB approach for the majority of the Group's credit risk exposures.

Internal assessment and supervisory formula approaches are used, where relevant, for non-rated securitisation exposures and for rated exposures where APS 120 "Securitisation"

(APS 120) prohibits the Group using the ratings-based approach. The ratings-based approach is used for securitisation exposures rated by External Credit Assessment Institutions (ECAI) where APS 120 allows or requires.

APS 330 Table 6b to 6f – Basel III Capital Requirements (RWA)

Asset Category	Risk Weighted Assets			Change in RWA for June 2020 half	
	30 Jun 20 \$M	31 Dec 19 \$M	30 Jun 19 \$M	\$M	%
Credit Risk					
Subject to AIRB approach ¹					
Corporate	69,577	67,236	64,683	2,341	3.5
SME corporate	30,890	31,560	30,478	(670)	(2.1)
SME retail	6,665	5,976	6,896	689	11.5
SME retail secured by residential mortgage	3,360	3,314	3,335	46	1.4
Sovereign	1,838	1,682	2,456	156	9.3
Bank	6,667	7,964	9,451	(1,297)	(16.3)
Residential mortgage	148,294	147,865	147,956	429	0.3
Qualifying revolving retail	6,697	7,802	8,486	(1,105)	(14.2)
Other retail	12,126	13,490	13,990	(1,364)	(10.1)
Total RWA subject to AIRB approach	286,114	286,889	287,731	(775)	(0.3)
Specialised lending	58,611	56,024	53,796	2,587	4.6
Subject to standardised approach					
Corporate	957	1,309	1,590	(352)	(26.9)
SME corporate	742	756	822	(14)	(1.9)
SME retail	2,929	4,586	4,628	(1,657)	(36.1)
Sovereign	267	218	233	49	22.5
Bank	68	66	66	2	3.0
Residential mortgage	6,635	6,478	6,732	157	2.4
Other retail	1,132	1,225	1,256	(93)	(7.6)
Other assets	10,281	9,752	8,854	529	5.4
Total RWA subject to standardised approach	23,011	24,390	24,181	(1,379)	(5.7)
Securitisation	3,015	3,191	2,905	(176)	(5.5)
Credit valuation adjustment	3,057	4,358	2,932	(1,301)	(29.9)
Central counterparties	386	365	1,029	21	5.8
Total RWA for credit risk exposures	374,194	375,217	372,574	(1,023)	(0.3)
Traded market risk	12,457	5,428	10,485	7,029	large
Interest rate risk in the banking book	11,085	8,998	9,898	2,087	23.2
Operational risk	57,212	59,511	59,805	(2,299)	(3.9)
Total risk weighted assets	454,948	449,154	452,762	5,794	1.3

¹ Pursuant to APRA requirements, RWA amounts derived from AIRB risk weight functions have been multiplied by a scaling factor of 1.06.

Risk Weighted Assets (continued)

Risk Weighted Assets

Total RWA increased by \$5.8 billion or 1% on the prior half to \$454.9 billion driven by increases in traded market risk RWA and IRRBB RWA, partly offset by lower credit risk RWA and operational risk RWA.

Credit Risk RWA

Credit risk RWA decreased by \$1.0 billion on the prior half to \$374.2 billion, primarily driven by:

- Volume growth across residential mortgages, commercial portfolios and sovereign exposures, partly offset by a reduction in Bank exposures and unsecured retail portfolios (\$4.2 billion);
- Credit quality deterioration across most non-retail portfolios, largely due to the impacts of COVID-19 (\$4.3 billion), partly offset by a reduction in credit valuation adjustment RWA (-\$2.0 billion); partly offset by
- Foreign currency movements (-\$1.1 billion);
- Changes in credit risk estimates and regulatory treatments for non-retail exposures, and improved alignment of provisioning and capital on defaulted exposures (including granular allocation of AASB 9 collective provisions in the determination of credit RWA for defaulted exposures) resulting in a reduction in credit RWA (-\$4.5 billion); and
- Data and methodology changes (-\$2.0 billion).

Traded Market Risk RWA

Traded market risk RWA increased by \$7.0 billion on the prior half year to \$12.5 billion. This was due to the increases in Value-at-Risk (VaR) and Stressed Value-at-Risk (SVaR) components, which were impacted by volatility in asset prices mainly due to foreign currency movements.

Interest Rate Risk in the Banking Book (IRRBB) RWA

IRRBB RWA increased by \$2.1 billion or 23% on the prior half to \$11.1 billion. This was due to the increased market volatility during the current half which impacted the Group's holdings of High Quality Liquid Assets (HQLA), partly offset by increases in embedded gains due to lower domestic and offshore interest rates.

Operational Risk RWA

Operational Risk RWA decreased by \$2.3 billion or 4% on the prior half year to \$57.2 billion. The decrease is due to improvements in the Group's operational risk profile in accordance with the Operational Risk Management Framework.

The Group regularly reviews and updates its operational risk RWA to reflect material changes in its operational risk profile in accordance with the Operational Risk Management Framework and governance processes.

The operational risk RWA includes the \$12.5 billion add-on required by APRA following the Prudential Inquiry findings dated 30 April 2018.

Explanation of Change in Credit RWA

The composition of the movement in credit RWA over the prior half is shown below.

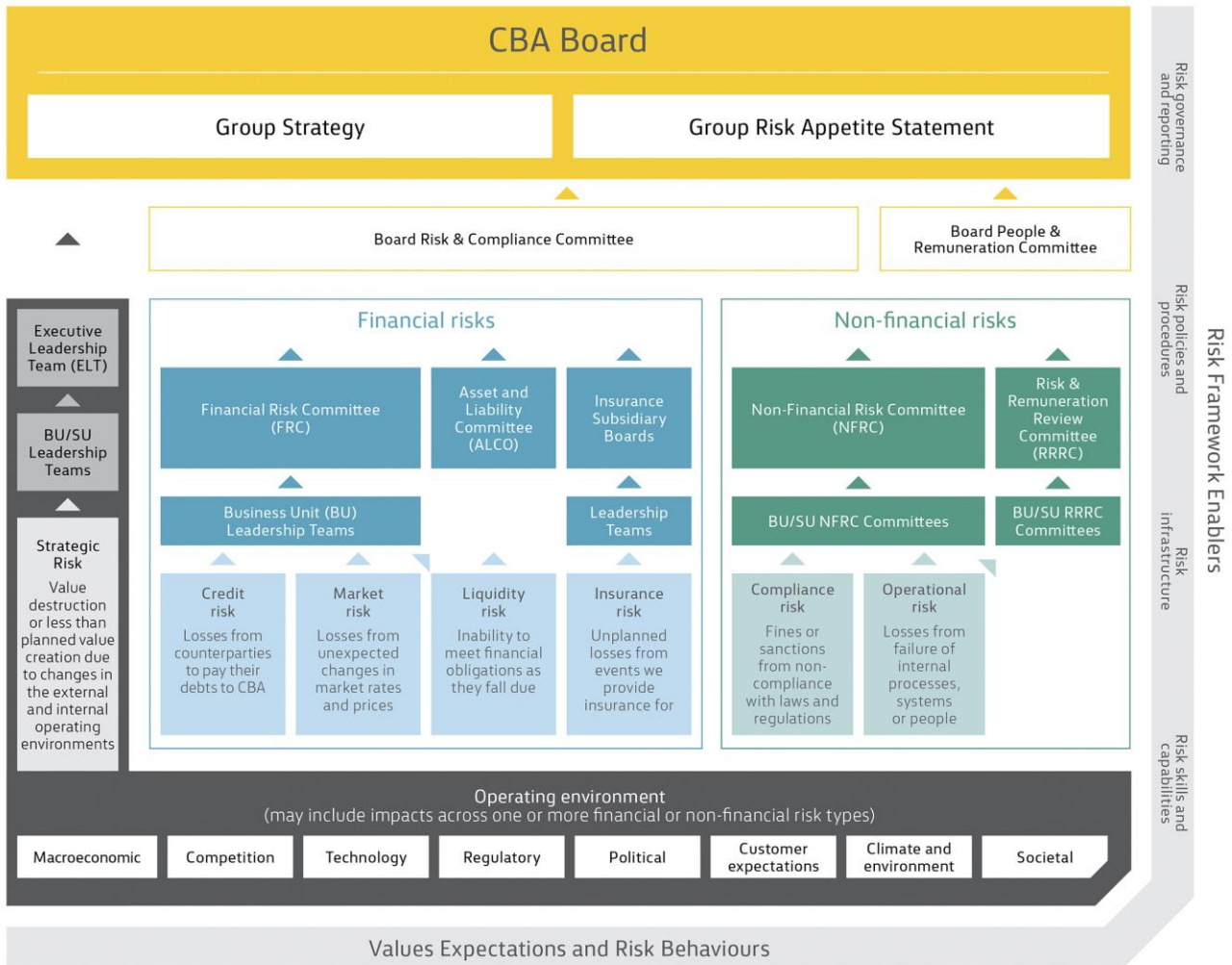
Asset Category	Credit RWA movement drivers						Change in credit quality ¹
	Change in RWA for June 20 half	Volume changes	FX changes	Credit risk estimates changes and regulatory treatments	Data and methodology changes	Change in credit quality ¹	
	\$M	\$M	\$M	\$M	\$M	\$M	\$M
AIRB corporate including SME and specialised lending	4,993	3,625	(419)	(1,363)	(979)		4,129
AIRB bank	(1,297)	(835)	15	(494)	25		(8)
AIRB sovereign	156	320	(1)	(70)	–		(93)
AIRB consumer retail	(2,040)	1,155	(555)	(2,547)	–		(93)
Standardised (including other assets, CCP and CVA)	(2,659)	9	(92)	(13)	(1,010)		(1,553)
Securitisation exposures	(176)	(78)	–	–	–		(98)
Total credit RWA movement	(1,023)	4,196	(1,052)	(4,487)	(1,964)		2,284

1 Credit quality includes portfolio mix.

Risk Management

7 Risk Management

The Group is exposed to financial risks, non-financial risks and strategic risks arising from its operations. The Group manages these risks through its Risk Management Framework (the Framework), which evolves to accommodate changes in the business operating environment, better practice approaches, and regulatory and community expectations. The components of the Framework are illustrated below, including the governance that enables executive and Board oversight of these risks.



Further details on each of the material risks, and how the Group manages them, are outlined in this section.

Risk Management Framework

The Framework enables the appropriate development and implementation of strategies, policies and procedures to manage risk. The Framework incorporates the requirements of APRA Prudential Standard CPS 220 “Risk Management” supported by the three key documentary components:

- **The Group Risk Appetite Statement (RAS)** articulates the type and degree of risk the Board is prepared to accept and the maximum level of risk that the Group must operate within;
- **The Group Risk Management Approach (RMA)** describes the Group’s approach to ensure comprehensive management of its risks in support of achieving its strategic goals and objectives; and
- **The Group Business Plan (Plan)** summarises the Group’s approach to the implementation of its strategic objectives. The Plan has a rolling three year duration and reflects material risks arising from its implementation.

The Framework is underpinned by the following Risk Framework Enablers that allow the Group to effectively identify, record, manage and monitor risks.

Risk Governance and Reporting

The Group is committed to ensuring that its risk management practices reflect a high standard of governance. This enables management to undertake, in an effective manner, prudent risk-taking activities. The Board operates as the highest level of the Group’s risk governance. The Board Risk and Compliance Committee is responsible for the oversight and governance of risks impacting the Group. It oversees the design, implementation and operation of the Framework and helps formulate the Group’s risk appetite for consideration by the Board. In particular it:

- Monitors the Group’s risk profile (including identification of emerging risks); and

Risk Management (continued)

Risk Governance and Reporting (continued)

- Reviews regular reports from management on the measurement of risk and the adequacy and effectiveness of the Group's risk management and internal control systems.

At management level, risk governance is undertaken by a structured hierarchy of personal delegations and management committees and forums across the Group and within the BUs and Support Units (SUs).

Regular management information is produced that allows financial and non-financial risk positions to be monitored against approved risk appetite and policy limits. At Board level, the majority of risk reporting is provided to the Board Risk and Compliance Committee; although select matters are reported directly to the Board as required. Controls reporting is provided to the Board Audit Committee.

The Group operates a Three Lines of Accountability model that places the accountability for risk ownership with the Line 1 BUs and SUs, while focussing the mandate of Line 2 Risk teams on risk appetite and the Framework, assurance, approval or acceptance of risk decisions of Line 1 and advice. Line 3 Internal Audit provides independent assurance to the Board, regulators and other stakeholders on the effectiveness of risk management, internal controls and governance.

Risk Policies & Procedures

Risk policies and procedures provide guidance to the business on the management of each material risk. They support the Framework by:

- Summarising the principles and practices to be used by the Group in identifying and assessing its material risks; and
- Quantifying the operating tolerances for material risks.

Risk Management Infrastructure

The Framework is supported by key infrastructure systems and processes for the management of the Group's material risks. The key risk management systems and processes in place include:

- **Risk processes** to identify, assess, escalate, monitor and manage risks and issues;
- **Management information systems** to measure and aggregate risks across the Group;
- **Risk models and tools;**
- **A Risk-Adjusted Performance Measurement (RAPM)** process that is a means of assessing the performance of a business after adjustment for its capital consumption and is used as a basis for executive incentives; and
- **An Internal Capital Adequacy Assessment Process (ICAAP)** used alongside other risk techniques (including stress testing), to quantify the Group's risks for use in risk decisions, capital plans and strategic decisions.

Risk Skills and Capabilities

In addition to having the necessary risk skills and capabilities for their roles, it is important for all Group employees to have an awareness of the Framework as it relates to their role, as well as the need to adopt the CBA risk behaviours to ensure a positive CBA risk culture. Risk skills and capabilities are developed through:

- **Communication of the Group RAS and the CBA RMA:** Following approval by the Board, the updated RAS and RMA are communicated to all employees. Employees are also made aware of the Group and BU/SU RASs via the remuneration process (which highlights that individual employee performance will be assessed in light of their compliance);
- **Group Mandatory Learning modules;**
- **The Operational Risk and Compliance Training program;**
- **Induction and ongoing learning; and**
- **Talent sourcing and acquisition.**

Risk Culture and Conduct Risk

Risk culture is the beliefs, values and practices within the organisation that determine how risks are identified, measured, governed, and acted upon. A positive risk culture drives the right risk decisions and helps the Group make sound judgements in new and unfamiliar circumstances. The risk behaviours that demonstrate a positive risk culture and are expected of employees by the Board, senior management, customers, communities, shareholders and regulators, are guided by CBA values that emphasise doing what is right, accountability, service, excellence and getting things done the right way.

The Board's RAS in relation to conduct risk requires business practices that are fair to customers, protect the fair and efficient operation of the market and engender confidence in our products and services. Annually, the CBA Board forms a view regarding the effectiveness of the Group's risk culture in keeping risk-taking within appetite. Action plans are initiated and monitored to drive positive risk culture changes in areas of need.

Responding to COVID-19 Risks

At times, changes in the Group's external and internal operating environments may have an impact on the nature of one or more of the material risk types, including strategic risk. An example is the COVID-19 pandemic, which rapidly introduced an array of new and elevated risks to the safety of employees, the resilience of the Group's operations, the strength of the Balance Sheet and the financial security of customers and the community. A number of actions were taken to address these risks, such as:

- Measures to support and protect employees;
- Relief measures to support customers;
- Infrastructure changes to ensure stability of key services;
- Continued enhancement of the Group's cyber defences;
- Increased oversight of critical suppliers;
- Increased forward looking loan loss provisions; and
- Ongoing monitoring of the Group's lending portfolios.

The Board and Management continue to actively monitor the situation and adapt the Group's response as required.

Risk Management (continued)

Material Risk Types

Description	Governing Policies and Key Management Committees	Key Controls and Risk Mitigation Strategies
Credit Risk (Section 8)		
<p>Credit risk is the potential for loss arising from the failure of a counterparty to meet their contractual obligations to the Group.</p> <p>The Group is primarily exposed to credit risk through:</p> <ul style="list-style-type: none"> ▪ Residential mortgage lending; ▪ Unsecured retail lending; ▪ Commercial lending; and ▪ Large corporate (institutional) lending and markets exposures. 	<p>Governing Policies:</p> <ul style="list-style-type: none"> ▪ Group Credit Risk Policies, Principles, Framework and Governance ▪ Group and BU Credit Risk Policies <p>Key Management Committee:</p> <ul style="list-style-type: none"> ▪ Financial Risk Committee ▪ BU/SU Financial Risk Committees 	<ul style="list-style-type: none"> ▪ Defined credit risk indicators set in the Group RAS; ▪ Transacting with counterparties that demonstrate the ability and willingness to service their obligations through performance of due diligence and thorough credit quality assessments; ▪ Applications assessed by credit decisioning models, with more complex or higher risk applications referred to credit authority holders; ▪ Taking collateral where appropriate; ▪ Pricing appropriately for risk; ▪ Credit concentration frameworks that set exposure limits to counterparties, groups of related counterparties, industry sectors and countries; ▪ Regular monitoring of credit quality, concentrations, arrears, policy exceptions and policy breaches; ▪ Working with impaired counterparties, or those in danger of becoming so, to help them rehabilitate their financial positions; and ▪ Stress testing, either at a counterparty or portfolio level.
Market Risk including Equity Risk (Section 9 and 10)		
<p>Market risk is the risk that market rates and prices will change and that this may have an adverse effect on the profitability and/or net worth of the Group.</p> <p>The Group is primarily exposed to market risk through:</p> <ul style="list-style-type: none"> ▪ Traded Market Risk; ▪ Interest Rate Risk in the Banking Book (IRRBB); ▪ Structural Foreign Exchange Risk; ▪ Lease Residual Value Risk; and ▪ Non-Traded Equity Risk. 	<p>Governing Policy:</p> <ul style="list-style-type: none"> ▪ The Group Market Risk Policy <p>Key Management Committees:</p> <ul style="list-style-type: none"> ▪ Financial Risk Committee (Oversight of traded market risk) ▪ Asset and Liability Committee (ALCO) (Oversight of IRRBB) 	<ul style="list-style-type: none"> ▪ Defined market indicators set in the Group RAS; ▪ Minimal appetite for proprietary trading; ▪ Conservative market risk limits with granular concentration limits at a position level including currency/index, tenor and product type; ▪ Pricing appropriately for risk; ▪ Back-testing of VaR models against hypothetical profit and loss; ▪ Daily monitoring and attribution of traded market risk exposures including risk sensitivities, VaR and stress testing; ▪ Weekly monitoring of VaR and stress test measures for derivative valuation adjustments (XVAs); ▪ Monthly monitoring of residual value risk exposures versus limits; ▪ Managing the Balance Sheet with a view to balancing Net Interest Income profit volatility and market value; ▪ Daily monitoring of IRRBB market risk exposures including risk sensitivities, credit spread risk, VaR and stress testing; ▪ Monthly monitoring of Net Interest Earnings at Risk versus limits; and ▪ Transfer pricing for risk.

Risk Management (continued)

Material Risk Types (continued)

Description	Governing Policies and Key Management Committees	Key Controls and Risk Mitigation Strategies
Liquidity and Funding Risk (Section 12)		
<p>Liquidity risk is the combined risks of not being able to meet financial obligations as they fall due (funding liquidity risk), and that liquidity in financial markets, such as the market for debt securities, may reduce significantly (market liquidity risk).</p> <p>The Group is exposed to liquidity risk primarily through:</p> <ul style="list-style-type: none"> ▪ The funding mismatch between the Group's loans, investments and sources of funding. 	<p>Governing Policy:</p> <ul style="list-style-type: none"> ▪ Group Liquidity Policy <p>Key Management Committee:</p> <ul style="list-style-type: none"> ▪ ALCO 	<ul style="list-style-type: none"> ▪ Defined liquidity risk indicators in the Group RAS; ▪ The Annual Funding Strategy (the Group's wholesale funding strategy based on a three year funding plan); ▪ Maintaining a diverse, yet stable, pool of potential funding sources across different currencies, geographies, entities and products; ▪ Maintaining sufficient liquidity buffers and short term funding capacity to withstand periods of disruption in long term wholesale funding markets and unanticipated changes in the Balance Sheet funding gap; ▪ Limiting the portion of wholesale funding sourced from offshore; ▪ Conservatively managing the mismatch between asset and liability maturities; ▪ Maintaining a conservative mix of readily saleable or repo-eligible liquid assets; ▪ Daily monitoring of liquidity risk exposures, including LCR and NSFR; ▪ Market and idiosyncratic stress test scenarios; and ▪ The Contingency Funding Plan provides strategies for addressing liquidity shortfalls in a crisis situation.
Operational Risk (Section 11)		
<p>Operational risk is the risk of loss arising from inadequate or failed internal processes, people and systems or from external events.</p> <p>The Group is exposed to operational risk primarily through:</p> <ul style="list-style-type: none"> ▪ Process execution errors; ▪ Cyber security losses; ▪ Technology failures; ▪ Data management issues; ▪ Model risks; ▪ Accounting, legal and taxation risks; ▪ Third parties; ▪ People (employment practice and workplace safety); ▪ Fraud (external and internal); and ▪ Non-technology business disruption. 	<p>Governing Policies:</p> <ul style="list-style-type: none"> ▪ Operational Risk Management Framework (ORMF) ▪ Group Outsourcing Policy ▪ Group Model Policy ▪ Group Fraud Management Policy ▪ Group Policy on Business Continuity Management ▪ Group Whistle-blower Policy ▪ Group Protective Security Policy ▪ Group Data Quality Management Policy <p>Key Management Committees:</p> <ul style="list-style-type: none"> ▪ Non-Financial Risk Committee ▪ BU/SU Non-Financial Risk Committees ▪ Model Risk Governance Committee 	<ul style="list-style-type: none"> ▪ Defined operational risk indicators in the Group RAS; ▪ Implementation of manual and automated controls to prevent, detect and mitigate the specific operational risks that the Group is exposed to; ▪ Regular Risk and Control Self-Assessment (RCSA) to assess key risks and controls for each BU/SU; ▪ Routine Controls Assurance Program tests to assess whether controls are designed and operating effectively to maintain risk exposures within acceptable levels; ▪ Incident management processes to identify, assess, record, report and manage actual operational or compliance events that have occurred. This data is used to guide management to strengthen processes and controls; ▪ Issue management processes to identify, assess, record, report and manage weaknesses or gaps in controls; ▪ Risk in Change process to effectively understand and manage the risks from changes to the business through projects or initiatives; ▪ Quantitative Risk Assessments are scenarios conducted to provide an understanding of potential unexpected losses; ▪ Establishment of Key Risk Indicators to monitor movements in risk exposures over time; and ▪ Assurance undertaken by Line 2 Risk teams to assess that operational risks are appropriately identified and managed across the Group.

Risk Management (continued)

Material Risk Types (continued)

Description	Governing Policies and Key Management Committees	Key Controls and Risk Mitigation Strategies
Compliance Risk		
<p>Compliance risk is the risk of sanctions and financial loss the Group may suffer as a result of the Group's failure to comply with laws, regulations, rules, statements of regulatory policy, and codes of conduct applicable to its business activities.</p> <p>The Group is exposed to compliance risk primarily through:</p> <ul style="list-style-type: none"> ▪ Regulatory and licencing obligations, including privacy and conflicts of interest obligations; ▪ Financial crime (Anti Money Laundering (AML), Counter Terrorism Financing (CTF), Anti-Bribery and Corruption, and Sanctions); and ▪ Poor conduct (product design and distribution, market conduct and employee misconduct). 	<p>Governing Policies:</p> <ul style="list-style-type: none"> ▪ Group Compliance Management Framework (CMF) and policies ▪ Group and BU Compliance policies and standards ▪ AML/CTF Group Program ▪ Anti-Bribery & Corruption Policy ▪ Group Economic Trade Sanctions Policy ▪ Code of Conduct ▪ Product Development and Distribution <p>Key Management Committees:</p> <ul style="list-style-type: none"> ▪ Non-Financial Risk Committee ▪ BU/SU Non-Financial Risk Committees 	<ul style="list-style-type: none"> ▪ Compliance risk indicators included in the Group RAS; ▪ Mandatory online compliance training for all employees; ▪ Regulatory change management to establish compliant business practices; ▪ Maintenance of obligation registers; ▪ Compliance risk profiling through the RCSA; ▪ Review of key compliance and conduct processes and controls through the regulatory assurance program and compliance monitoring; ▪ Group wide minimum standards in key compliance areas; ▪ Co-operative and transparent relationships with regulators; ▪ Board and management governance and reporting; ▪ Pre-employment due diligence on the Group's employees and enhanced screening for high risk roles; ▪ Training and awareness sessions to staff highlighting the community impact of financial crime and the Group's role to detect, deter and disrupt money laundering, terrorist financing and other serious crime; ▪ Customer on-boarding processes to meet AML/CTF identification and screening requirements; ▪ Ongoing customer due diligence to ensure information the Group maintains on customers is accurate; ▪ Risk assessments on customers, products and channels to ensure the Group understands the money laundering and terrorist financing risks; ▪ Enhanced customer due diligence on higher risk segments; ▪ Monitoring customer payments, trade and all transactions to manage the AML/CTF and sanctions risks identified; ▪ Undertake statutory reporting requirements including International Funds Transfer Instructions, Threshold Transaction Reports and Suspicious Matter Reports; ▪ Controls to prevent corruption of public officials by employees, representatives, suppliers or third party agents, including disclosure and approval of gifts and entertainment, charitable donations and sponsorships; and ▪ Conduct Risk strategy and Code of Conduct, supported by mandatory training for all staff.

Risk Management (continued)

Material Risk Types (continued)

Description	Governing Policies and Key Management Committees	Key Controls and Risk Mitigation Strategies
Insurance Risk		
<p>Insurance risk is the risk of loss due to the potential for events the Group has insured against occurring more frequently or with greater severity than anticipated. The Group is primarily exposed to insurance risk through home and motor events through a wholly-owned subsidiary in Australia.</p>	<p>Governing Policies:</p> <ul style="list-style-type: none"> ▪ Product Management Policy ▪ Underwriting Policy ▪ Claims Management Policy ▪ Reinsurance Management Policy <p>Key Management Committee:</p> <ul style="list-style-type: none"> ▪ Executive Committees of insurance writing businesses 	<ul style="list-style-type: none"> ▪ Defined insurance risk indicators set in the Group RAS; ▪ Sound product design and pricing to ensure that customers understand the extent of their cover and that premiums are sufficient to cover the risk involved; ▪ Limits, standards and underwriting authorities to ensure acceptance of appropriate risks; ▪ Regular monitoring of loss ratios, aggregations and concentrations; ▪ Catastrophe modelling and stress testing; ▪ Actuarial review of claims provisions; ▪ Controls to ensure valid claims are paid without undue delay; and ▪ Reinsurance to manage the volatility of insurance risk and limit exposure to significant, individual or aggregate risks or risk concentrations.
Strategic Risk		
<p>Strategic risk is the risk of material stakeholder value destruction or less than planned value creation. The Group is exposed to strategic risk primarily through:</p> <ul style="list-style-type: none"> ▪ Changes in the Group's external and internal operating environments (including macroeconomic conditions, competitive forces, technology, regulatory, political and social trends, customer expectations and the environment); and ▪ Risk associated with the process for strategy development and monitoring of strategy implementation. 	<p>Governing Policies:</p> <ul style="list-style-type: none"> ▪ Group Strategic Risk Management Policy ▪ Environmental & Social Policy <p>Key Management Committee:</p> <ul style="list-style-type: none"> ▪ Executive Leadership Team 	<p>Strategic risk:</p> <ul style="list-style-type: none"> ▪ Strategy development, approval and review; ▪ Identifying and monitoring changes and potential changes to the operating environment; and ▪ Monitoring execution progress of strategies. <p>In developing the strategy, the following is considered:</p> <ul style="list-style-type: none"> ▪ Impact of strategy on the Group's risk profile and measures of risk appetite; ▪ Recent execution progress; and ▪ Assumptions concerning the operating environment. <p>Climate risk represents a strategic risk due to the potential material transition and physical climate related impacts to the Group, if not managed effectively. The potential adverse impacts of climate change manifest, and are therefore measured and managed, as an outcome of the other material risk types. In order to understand these potential impacts, and in support of a commitment to limiting the impacts of climate change the Group:</p> <ul style="list-style-type: none"> ▪ Develops scenario analyses to understand the impacts of both transition and physical climate-related risks on the business and the implications for strategic and tactical portfolio decisions; and ▪ Develops strong policy frameworks which consider Environmental, Social and Governance issues, including climate change impacts in assessing relationships with customers and suppliers. <p>Corporate Responsibility programs outline the objectives for safeguarding the environment, while supporting economic growth and development and provide guidelines in monitoring and reducing the Group's own greenhouse gas emissions and energy use.</p>

Credit Risk

8 Credit Risk

Credit risk is the potential of loss arising from failure of a counterparty to meet their contractual obligations to the Group. It arises primarily from lending activities, the provision of guarantees (including letters of credit), investments in bonds and notes, financial markets transactions, credit enhancements, securitisations and other associated activities.

The Group maintains a robust system of controls and processes to optimise the Group's credit risk-taking activities.

Credit risk is managed at both a Group and BU level. The key credit risk related functions support the overall risk management responsibilities of the Board Risk and Compliance Committee and senior management as discussed in section 7 "Risk Management" of this document.

The Group applies the following elements for effective credit risk practice in its day-to-day business activities:

- Credit Risk Management Framework with associated policies; and
- Credit Risk Rating and Measurement (pages 39-41).

Credit Risk Management Framework

The Board Risk and Compliance Committee oversees the Group's approach to credit risk management which includes key elements of the Group Credit Risk Framework. The Group Credit Risk Management Framework is designed to achieve credit portfolio outcomes that are consistent with the Group's risk and return expectations. The Board Risk and Compliance Committee

meets approximately eight times each year. The Group has clearly defined credit policies for the approval and management of credit risk. These set the minimum requirements for assessing the integrity and ability of counterparties to meet their contractual obligations for repayment, acceptable forms of collateral and security and the frequency of credit reviews.

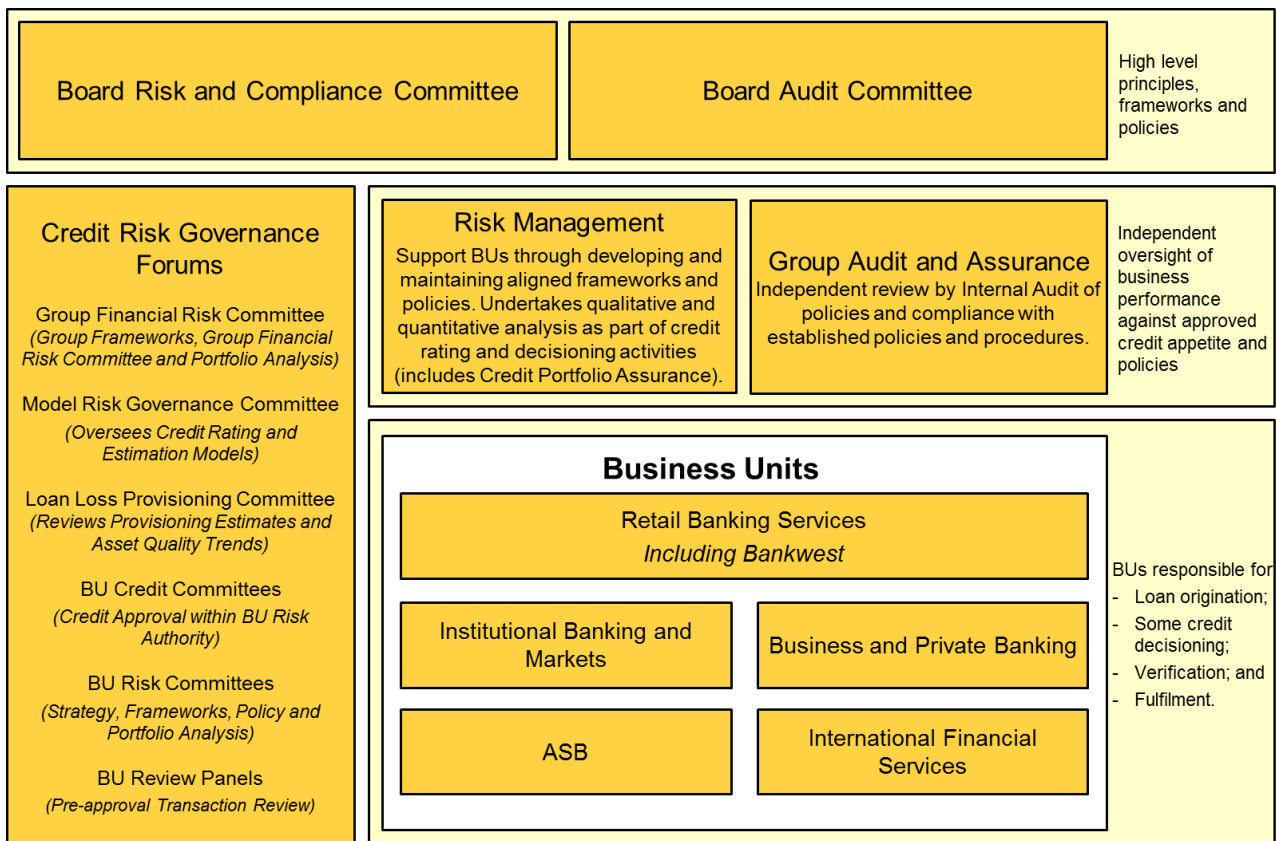
The Group's RAS requires that there is appropriate diversification of credit risk. This is achieved through established policies that include limits for the key dimensions of the credit portfolio for:

- Individual obligors, or groups of related obligors;
- Industry sectors; and
- Geography (e.g. country risk).

Experts in each BU are accountable for identifying ways to diversify credit risk exposure in their businesses, all within the policy limits.

The Credit Portfolio Assurance Unit, part of Group Financial Risk, reviews credit portfolios and BU compliance with policies, application of credit risk ratings and other key practices on a regular basis. The Credit Portfolio Assurance Unit reports its findings to the Financial Risk Committee and the Board Risk and Compliance Committee as appropriate.

The chart below illustrates the approach taken to manage credit risk in the Group.



Credit Risk (continued)

8.1 COVID-19 Customer Support Measures

The Group has introduced a number of support measures for retail and business customers impacted by the COVID-19 pandemic, including loan repayment deferrals. On 23 March 2020, APRA announced that where a borrower was otherwise performing, and their loan was subject to repayment deferrals as part of a COVID-19 support package, the repayment deferrals would not be treated as a period of arrears and the loan would not be regarded as restructured. On 8 July 2020, APRA advised that this regulatory approach would be extended to cover a maximum period of 10 months from the start of a repayment deferral, or until 31 March 2021, whichever comes first for eligible customers.

Additionally, to facilitate ADIs transitioning impacted borrowers to a regular repayment schedule, APRA will temporarily adjust the capital requirements so that a borrower's facilities can be restructured and immediately returned to a performing status provided the restructure occurs before 31 March 2021. The RBNZ have provided similar concessions for repayment deferrals granted in response to COVID-19. As at 30 June 2020, ~240,000 accounts with a total EAD of \$73.5 billion have been granted COVID-19 repayment deferrals. Of these ~234,000 accounts with a total EAD of \$71.9 billion qualify for APRA/RBNZ concessional treatment, shown in the table below.

Loan Deferrals by Asset Category

Asset Category	30 June 2020	
	Exposure at Default	Risk Weighted Assets
	\$M	\$M
Corporate	813	714
SME corporate	8,305	4,799
SME retail	3,400	1,633
SME retail secured by residential mortgage	2,429	1,484
Residential mortgage	54,855	22,683
Qualifying revolving retail	27	21
Other retail	113	159
Specialised lending	1,949	2,080
Total	71,891	33,573

The Group has also participated in the Australian Government's SME Guarantee Scheme. Under the Scheme, the Group has originated unsecured loans, with an initial six month repayment holiday and 50% of the loan guaranteed by the Government. APRA has confirmed that the SME Guarantee Scheme will be regarded as an eligible guarantee by the government for risk weighting purposes. ASB has participated in a similar scheme in New Zealand. The Group will continue to provision for these loans under relevant accounting standards.

Credit Risk (continued)

8.2 Credit Risk Exposure – excluding Equities and Securitisation

The following tables detail credit risk exposures subject to AIRB and standardised approaches.

APS 330 Table 7i – Credit risk exposures by portfolio type and modelling approach

Portfolio Type	30 June 2020				Average exposure for June 2020 half ¹	Change in exposure for June 2020 half ²	
	On Balance Sheet	Off Balance Sheet		Total		\$M	%
		\$M	Non-market related				
Subject to AIRB approach							
Corporate	66,476	45,826	10,665	122,967	122,262	1,410	1.2
SME corporate	42,556	8,556	744	51,856	51,840	32	0.1
SME retail	7,477	4,108	–	11,585	11,096	978	9.2
SME retail secured by residential mortgage	4,035	1,502	–	5,537	5,571	(67)	(1.2)
Sovereign	104,584	1,119	2,421	108,124	99,416	17,416	19.2
Bank	16,119	404	7,651	24,174	25,491	(2,635)	(9.8)
Residential mortgage	526,642	72,871	–	599,513	595,266	8,495	1.4
Qualifying revolving retail	8,192	17,117	–	25,309	25,994	(1,370)	(5.1)
Other retail	6,716	3,139	–	9,855	10,269	(827)	(7.7)
Total AIRB approach	782,797	154,642	21,481	958,920	947,205	23,432	2.5
Specialised lending	55,065	8,902	2,466	66,433	65,332	2,203	3.4
Subject to standardised approach							
Corporate	794	139	24	957	1,133	(352)	(26.9)
SME corporate	555	175	11	741	749	(15)	(2.0)
SME retail	2,018	878	24	2,920	3,751	(1,662)	(36.3)
Sovereign	564	1	–	565	520	90	18.9
Bank	324	–	–	324	322	5	1.6
Residential mortgage	13,433	1,669	–	15,102	14,759	686	4.8
Other retail	1,095	25	–	1,120	1,172	(104)	(8.5)
Other assets	17,799	–	–	17,799	17,239	1,121	6.7
Central counterparties	–	–	10,483	10,483	9,749	1,469	16.3
Total standardised approach	36,582	2,887	10,542	50,011	49,394	1,238	2.5
Total Credit Exposures ³	874,444	166,431	34,489	1,075,364	1,061,931	26,873	2.6

¹ The simple average of balances as at 30 June 2020 and 31 December 2019.

² The difference between exposures as at 30 June 2020 and 31 December 2019.

³ Total credit risk exposures (calculated as EAD) do not include equities or securitisation exposures.

Explanation of Change in Credit Risk Exposure

Details of credit risk exposure movements over the half year are as follows.

Asset Category	Total exposure change	Regulatory Exposure Driver
	\$M	
AIRB corporate (including SME corporate and SME retail) and specialised lending	4,556	Volume growth across most portfolios, partly offset by foreign exchange rate (FX) movements
AIRB sovereign	17,416	Increase in liquid assets held with central banks
AIRB bank	(2,635)	Reduction in liquid assets
AIRB consumer retail	6,298	Volume growth in residential mortgages, partly offset by FX movements and reductions in other consumer retail portfolios
Total advanced and specialised lending	25,635	
Standardised (including other assets and central counterparties)	1,238	Higher volumes and increases in lease assets, partly offset by FX movements
Total (excluding securitisation and equity exposures)	26,873	

Credit Risk (continued)

APS 330 Table 7i – Credit risk exposures by portfolio type and modelling approach (continued)

Portfolio Type	31 December 2019				Average exposure for December 2019 half ¹	Change in exposure for December 2019 half ²	
	On Balance Sheet	Off Balance Sheet	Non-market related	Market related		Total	\$M
	\$M	\$M	\$M	\$M	\$M	\$M	%
Subject to AIRB approach							
Corporate	67,614	44,267	9,676	121,557	120,201	2,713	2.3
SME corporate	42,818	8,398	608	51,824	51,946	(244)	(0.5)
SME retail	6,970	3,637	–	10,607	10,762	(310)	(2.8)
SME retail secured by residential mortgage	4,112	1,492	–	5,604	5,666	(123)	(2.1)
Sovereign	87,248	1,225	2,235	90,708	90,307	803	0.9
Bank	19,206	377	7,226	26,809	30,225	(6,831)	(20.3)
Residential mortgage	518,096	72,922	–	591,018	584,377	13,282	2.3
Qualifying revolving retail	9,977	16,702	–	26,679	27,024	(692)	(2.5)
Other retail	7,610	3,072	–	10,682	10,926	(489)	(4.4)
Total AIRB approach	763,651	152,092	19,745	935,488	931,434	8,109	0.9
Specialised lending	53,751	8,821	1,658	64,230	62,747	2,964	4.8
Subject to standardised approach							
Corporate	1,155	150	4	1,309	1,450	(281)	(17.7)
SME corporate	596	160	–	756	789	(66)	(8.0)
SME retail	3,664	719	199	4,582	4,605	(46)	(1.0)
Sovereign	474	1	–	475	484	(20)	(4.0)
Bank	319	–	–	319	317	4	1.3
Residential mortgage	12,693	1,723	–	14,416	14,675	(517)	(3.5)
Other retail	1,196	28	–	1,224	1,236	(25)	(2.0)
Other assets	16,678	–	–	16,678	15,606	2,145	14.8
Central counterparties	–	–	9,014	9,014	8,502	1,025	12.8
Total standardised approach	36,775	2,781	9,217	48,773	47,664	2,219	4.8
Total credit exposures ³	854,177	163,694	30,620	1,048,491	1,041,845	13,292	1.3

¹ The simple average of balances as at 31 December 2019 and 30 June 2019.

² The difference between exposures as at 31 December 2019 and 30 June 2019.

³ Total credit risk exposures (calculated as EAD) do not include equities or securitisation exposures.

Credit Risk (continued)

APS 330 Table 7i – Credit risk exposures by portfolio type and modelling approach (continued)

Portfolio Type	30 June 2019				Average exposure for June 2019 half ¹	Change in exposure for June 2019 half ²	
	On Balance Sheet	Off Balance Sheet Non-market related	Off Balance Sheet Market related	Total		\$M	%
	\$M	\$M	\$M	\$M	\$M		
Subject to AIRB approach							
Corporate	67,899	44,298	6,647	118,844	121,873	(6,057)	(4.8)
SME corporate	43,564	8,097	407	52,068	51,731	673	1.3
SME retail	7,424	3,493	–	10,917	11,079	(324)	(2.9)
SME retail secured by residential mortgage	4,305	1,422	–	5,727	5,818	(183)	(3.1)
Sovereign	86,962	1,087	1,856	89,905	90,356	(902)	(1.0)
Bank	25,029	448	8,163	33,640	33,900	(519)	(1.5)
Residential mortgage	506,757	70,979	–	577,736	572,545	10,382	1.8
Qualifying revolving retail	10,189	17,182	–	27,371	27,835	(928)	(3.3)
Other retail	8,055	3,116	–	11,171	11,216	(89)	(0.8)
Total AIRB approach	760,184	150,122	17,073	927,379	926,353	2,053	0.2
Specialised lending	52,235	7,944	1,087	61,266	61,103	325	0.5
Subject to standardised approach							
Corporate	1,296	175	119	1,590	1,506	167	11.7
SME corporate	642	177	3	822	928	(212)	(20.5)
SME retail	3,798	747	83	4,628	4,814	(372)	(7.4)
Sovereign	494	1	–	495	493	4	0.8
Bank	315	–	–	315	285	61	24.0
Residential mortgage	13,162	1,771	–	14,933	14,727	412	2.8
Other retail	1,208	41	–	1,249	1,370	(243)	(16.3)
Other assets	14,533	–	–	14,533	12,956	3,155	27.7
Central counterparties	–	–	7,989	7,989	7,628	722	9.9
Total standardised approach	35,448	2,912	8,194	46,554	44,707	3,694	8.6
Total credit exposures ³	847,867	160,978	26,354	1,035,199	1,032,163	6,072	0.6

¹ The simple average of balances as at 30 June 2019 and 31 December 2018.

² The difference between exposures as at 30 June 2019 and 31 December 2018.

³ Total credit risk exposures (calculated as EAD) do not include equities or securitisation exposures.

Credit Risk (continued)

APS 330 Table 7b – Credit risk exposure by portfolio type

Portfolio Type	As at 30 Jun 20 \$M	Half year average ¹ \$M
Corporate	123,924	123,395
SME corporate	52,597	52,589
SME retail	14,505	14,847
SME retail secured by residential mortgage	5,537	5,571
Sovereign	108,689	99,936
Bank	24,498	25,813
Residential mortgage	614,615	610,025
Qualifying revolving retail	25,309	25,994
Other retail	10,975	11,441
Specialised lending	66,433	65,332
Other assets	17,799	17,239
Central counterparties	10,483	9,749
Total credit exposures²	1,075,364	1,061,931

Portfolio Type	As at 31 Dec 19 \$M	Half year average ¹ \$M
Corporate	122,866	121,650
SME corporate	52,580	52,734
SME retail	15,189	15,367
SME retail secured by residential mortgage	5,604	5,666
Sovereign	91,183	90,792
Bank	27,128	30,542
Residential mortgage	605,434	599,052
Qualifying revolving retail	26,679	27,024
Other retail	11,906	12,162
Specialised lending	64,230	62,748
Other assets	16,678	15,606
Central counterparties	9,014	8,502
Total credit exposures²	1,048,491	1,041,845

Portfolio Type	As at 30 Jun 19 \$M	Half year average ¹ \$M
Corporate	120,434	123,379
SME corporate	52,890	52,659
SME retail	15,545	15,893
SME retail secured by residential mortgage	5,727	5,818
Sovereign	90,400	90,849
Bank	33,955	34,184
Residential mortgage	592,669	587,272
Qualifying revolving retail	27,371	27,835
Other retail	12,420	12,586
Specialised lending	61,266	61,104
Other assets	14,533	12,956
Central counterparties	7,989	7,628
Total credit exposures²	1,035,199	1,032,163

¹ The simple average of closing balances of each half year.

² Total credit risk exposures do not include equities or securitisation exposures.

Credit Risk (continued)

APS 330 Table 7c – Credit risk exposure by portfolio type and geographic distribution

Portfolio Type	30 June 2020 ¹			
	Australia	New Zealand	Other	Total
	\$M	\$M	\$M	\$M
Corporate	77,090	11,963	34,871	123,924
SME corporate	37,109	14,812	676	52,597
SME retail ²	18,022	1,859	161	20,042
Sovereign	64,862	7,240	36,587	108,689
Bank	10,928	1,399	12,171	24,498
Residential mortgage	548,608	64,615	1,392	614,615
Qualifying revolving retail	25,307	–	2	25,309
Other retail	7,050	3,538	387	10,975
Specialised lending	53,884	8,511	4,038	66,433
Other assets	15,907	887	1,005	17,799
Central counterparties	371	–	10,112	10,483
Total credit exposures³	859,138	114,824	101,402	1,075,364

Portfolio Type	31 December 2019 ¹			
	Australia	New Zealand	Other	Total
	\$M	\$M	\$M	\$M
Corporate	73,582	12,311	36,973	122,866
SME corporate	36,759	15,195	626	52,580
SME retail ²	17,348	3,233	212	20,793
Sovereign	53,485	4,121	33,577	91,183
Bank	11,152	1,887	14,089	27,128
Residential mortgage	540,242	63,601	1,591	605,434
Qualifying revolving retail	26,677	–	2	26,679
Other retail	7,759	3,746	401	11,906
Specialised lending	51,738	8,473	4,019	64,230
Other assets	14,544	1,038	1,096	16,678
Central counterparties	381	–	8,633	9,014
Total credit exposures³	833,667	113,605	101,219	1,048,491

Portfolio Type	30 June 2019 ¹			
	Australia	New Zealand	Other	Total
	\$M	\$M	\$M	\$M
Corporate	71,274	11,424	37,736	120,434
SME corporate	37,369	14,740	781	52,890
SME retail ²	17,876	3,177	219	21,272
Sovereign	53,481	3,476	33,443	90,400
Bank	16,357	1,714	15,884	33,955
Residential mortgage	529,090	61,936	1,643	592,669
Qualifying revolving retail	27,369	–	2	27,371
Other retail	8,293	3,757	370	12,420
Specialised lending	49,043	7,854	4,369	61,266
Other assets	12,883	626	1,024	14,533
Central counterparties	746	–	7,243	7,989
Total credit exposures³	823,781	108,704	102,714	1,035,199

1 Balances are reported based on the risk domicile of the borrowers.

2 Including SME retail secured by residential property.

3 Total credit risk exposures do not include equities or securitisation exposures.

Credit Risk (continued)

APS 330 Table 7d – Credit risk exposure by portfolio type and industry sector

Portfolio Type	30 June 2020							
	Industry Sector							
	Residential mortgage	Other personal	Asset finance	Sovereign	Bank	Other finance	Agriculture	Mining
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Corporate	–	–	3,623	–	–	25,135	2,986	7,926
SME corporate	–	–	3,228	–	–	1,976	17,339	159
SME retail ¹	–	–	3,293	–	–	351	1,667	69
Sovereign	–	–	–	108,689	–	–	–	–
Bank	–	–	–	–	24,498	–	–	–
Residential mortgage	614,615	–	–	–	–	–	–	–
Qualifying revolving retail	–	25,309	–	–	–	–	–	–
Other retail	–	10,631	344	–	–	–	–	–
Specialised lending	–	–	22	–	–	–	–	1,464
Other assets	–	2,150	–	–	–	–	–	–
Central counterparties	–	–	–	–	884	9,599	–	–
Total credit exposures ²	614,615	38,090	10,510	108,689	25,382	37,061	21,992	9,618

Portfolio Type	Industry Sector (continued)								
	Manufacturing	Energy	Construction	Retail/wholesale		Transport and storage	Property ³	Other	Total
				trade					
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M	
Corporate	9,909	6,353	3,319	9,508	16,875	12,010	26,280	123,924	
SME corporate	2,906	93	2,672	7,230	1,480	157	15,357	52,597	
SME retail ¹	836	18	1,588	2,376	457	1,832	7,555	20,042	
Sovereign	–	–	–	–	–	–	–	108,689	
Bank	–	–	–	–	–	–	–	24,498	
Residential mortgage	–	–	–	–	–	–	–	614,615	
Qualifying revolving retail	–	–	–	–	–	–	–	25,309	
Other retail	–	–	–	–	–	–	–	10,975	
Specialised lending	62	2,297	–	218	3,186	57,443	1,741	66,433	
Other assets	–	–	–	–	–	–	15,649	17,799	
Central counterparties	–	–	–	–	–	–	–	10,483	
Total credit exposures ²	13,713	8,761	7,579	19,332	21,998	71,442	66,582	1,075,364	

1 SME retail business lending secured by residential property has been allocated by industry.

2 Total credit risk exposures do not include equities or securitisation exposures.

3 Property includes Real Estate Investment Trusts (REIT) and excludes Business Services.

Credit Risk (continued)

APS 330 Table 7d – Credit risk exposure by portfolio type and industry sector (continued)

Portfolio Type	31 December 2019							
	Industry Sector							
	Residential mortgage	Other personal	Asset finance	Sovereign	Bank	Other finance	Agriculture	Mining
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Corporate	–	–	3,624	–	–	26,270	2,970	8,801
SME corporate	–	–	3,101	–	–	1,666	17,438	143
SME retail ¹	–	–	3,290	–	–	357	1,787	116
Sovereign	–	–	–	91,183	–	–	–	–
Bank	–	–	–	–	27,128	–	–	–
Residential mortgage	605,434	–	–	–	–	–	–	–
Qualifying revolving retail	–	26,679	–	–	–	–	–	–
Other retail	–	11,552	354	–	–	–	–	–
Specialised lending	–	–	13	–	–	–	1	1,244
Other assets	–	2,570	–	–	–	–	–	–
Central counterparties	–	–	–	–	978	8,036	–	–
Total credit exposures ²	605,434	40,801	10,382	91,183	28,106	36,329	22,196	10,304

Portfolio Type	Industry Sector (continued)								
	Manufacturing	Energy	Construction	Retail/wholesale		Transport and storage	Property ³	Other	Total
				trade					
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M	
Corporate	9,976	6,439	2,931	9,427	15,994	11,144	25,290	122,866	
SME corporate	2,965	174	2,626	7,679	1,462	244	15,082	52,580	
SME retail ¹	846	17	1,629	2,513	458	2,339	7,441	20,793	
Sovereign	–	–	–	–	–	–	–	91,183	
Bank	–	–	–	–	–	–	–	27,128	
Residential mortgage	–	–	–	–	–	–	–	605,434	
Qualifying revolving retail	–	–	–	–	–	–	–	26,679	
Other retail	–	–	–	–	–	–	–	11,906	
Specialised lending	63	2,312	–	261	2,354	55,966	2,016	64,230	
Other assets	–	–	–	–	–	–	14,108	16,678	
Central counterparties	–	–	–	–	–	–	–	9,014	
Total credit exposures ²	13,850	8,942	7,186	19,880	20,268	69,693	63,937	1,048,491	

1 SME retail business lending secured by residential property has been allocated by industry.

2 Total credit risk exposures do not include equities or securitisation exposures.

3 Property includes REITs and excludes Business Services.

Credit Risk (continued)

APS 330 Table 7d – Credit risk exposure by portfolio type and industry sector (continued)

30 June 2019								
Portfolio Type	Industry Sector							
	Residential mortgage \$M	Other personal \$M	Asset finance \$M	Sovereign \$M	Bank \$M	Other finance \$M	Agriculture \$M	Mining \$M
Corporate	–	–	3,517	–	–	25,086	3,038	8,057
SME corporate	–	–	2,936	–	–	1,680	17,445	180
SME retail ¹	–	–	3,549	–	–	390	1,808	122
Sovereign	–	–	–	90,400	–	–	–	–
Bank	–	–	–	–	33,955	–	–	–
Residential mortgage	592,669	–	–	–	–	–	–	–
Qualifying revolving retail	–	27,371	–	–	–	–	–	–
Other retail	–	12,140	280	–	–	–	–	–
Specialised lending	–	–	80	–	–	–	1	1,620
Other assets	–	2,418	–	–	–	–	–	–
Central counterparties	–	–	–	–	742	7,247	–	–
Total credit exposures ²	592,669	41,929	10,362	90,400	34,697	34,403	22,292	9,979

Portfolio Type	Industry Sector (continued)								Total \$M
	Manufacturing \$M	Energy \$M	Construction \$M	Retail/ wholesale trade \$M	Transport and storage \$M	Property ³ \$M	Other \$M		
Corporate	10,814	5,832	2,888	9,676	15,584	10,807	25,135	120,434	
SME corporate	2,950	124	2,744	7,482	1,528	411	15,410	52,890	
SME retail ¹	806	18	1,650	2,496	461	2,412	7,560	21,272	
Sovereign	–	–	–	–	–	–	–	90,400	
Bank	–	–	–	–	–	–	–	33,955	
Residential mortgage	–	–	–	–	–	–	–	592,669	
Qualifying revolving retail	–	–	–	–	–	–	–	27,371	
Other retail	–	–	–	–	–	–	–	12,420	
Specialised lending	61	2,157	–	246	2,493	52,944	1,664	61,266	
Other assets	–	–	–	–	–	–	12,115	14,533	
Central counterparties	–	–	–	–	–	–	–	7,989	
Total credit exposures ²	14,631	8,131	7,282	19,900	20,066	66,574	61,884	1,035,199	

1 SME retail business lending secured by residential property has been allocated by industry.

2 Total credit risk exposures do not include equities or securitisation exposures.

3 Property includes REITs and excludes Business Services.

Credit Risk (continued)

APS 330 Table 7e – Credit risk exposure by portfolio type and residual contractual maturity

Portfolio Type	30 June 2020				
	≤ 12mths	1 ≤ 5yrs	> 5 years	No specified maturity	Total
	\$M	\$M	\$M	\$M	\$M
Corporate	41,685	72,492	9,747	–	123,924
SME corporate	20,217	28,909	3,471	–	52,597
SME retail ¹	7,228	8,009	4,805	–	20,042
Sovereign	39,371	34,964	34,354	–	108,689
Bank	8,839	13,822	1,837	–	24,498
Residential mortgage	22,436	81,781	476,327	34,071	614,615
Qualifying revolving retail	–	–	–	25,309	25,309
Other retail	185	4,577	2,174	4,039	10,975
Specialised lending	19,948	40,390	6,095	–	66,433
Other assets	5,643	325	470	11,361	17,799
Central counterparties	4,231	3,479	2,773	–	10,483
Total credit exposures ²	169,783	288,748	542,053	74,780	1,075,364

Portfolio Type	31 December 2019 ³				
	≤ 12mths	1 ≤ 5yrs	> 5 years	No specified maturity	Total
	\$M	\$M	\$M	\$M	\$M
Corporate	41,511	69,508	11,847	–	122,866
SME corporate	20,812	28,031	3,737	–	52,580
SME retail ¹	7,308	7,623	5,862	–	20,793
Sovereign	25,440	33,310	32,433	–	91,183
Bank	11,539	14,012	1,577	–	27,128
Residential mortgage	17,966	63,184	487,644	36,640	605,434
Qualifying revolving retail	–	–	–	26,679	26,679
Other retail	202	4,840	2,636	4,228	11,906
Specialised lending	20,060	38,741	5,429	–	64,230
Other assets	4,916	364	511	10,887	16,678
Central counterparties	3,477	4,284	1,253	–	9,014
Total credit exposures ²	153,231	263,897	552,929	78,434	1,048,491

Portfolio Type	30 June 2019 ³				
	≤ 12mths	1 ≤ 5yrs	> 5 years	No specified maturity	Total
	\$M	\$M	\$M	\$M	\$M
Corporate	38,873	70,106	11,455	–	120,434
SME corporate	20,751	28,146	3,993	–	52,890
SME retail ¹	7,322	7,978	5,972	–	21,272
Sovereign	23,449	31,697	35,254	–	90,400
Bank	15,201	16,708	2,046	–	33,955
Residential mortgage	17,456	61,529	475,019	38,665	592,669
Qualifying revolving retail	–	–	–	27,371	27,371
Other retail	483	4,636	3,023	4,278	12,420
Specialised lending	20,863	35,677	4,726	–	61,266
Other assets	2,885	524	248	10,876	14,533
Central counterparties	1,996	3,446	2,547	–	7,989
Total credit exposures ²	149,279	260,447	544,283	81,190	1,035,199

1 Including SME retail secured by residential property.

2 Total credit risk exposures do not include equities or securitisation exposures.

3 Comparative information has been restated to conform to presentation in the current period.

Credit Risk (continued)

8.3 Past Due and Impaired Exposures, Provisions and Reserves

Provisioning for Impairment

The Group assesses and measures credit losses in accordance with statutory financial accounting requirements under the *Corporations Act 2001* (Cth), Australian Accounting Standards as issued by the Australian Accounting Standards Board (AASB) and APRA regulatory requirements.

The Group assesses its provisioning for impairment in accordance with AASB 9 and recognises both individually assessed provisions and collectively assessed provisions.

A monthly assessment is undertaken to assess the quality of the credit portfolio to determine the loan loss expense and provisions.

APRA Prudential Standard APS 220 "Credit Quality" (APS 220) requires the Group to report Specific Provisions and a General Reserve for Credit Losses (GRCL) and requires that impairment be recognised for both on and off Balance Sheet items, including financial guarantees, for the expected life. Any shortfall of the Group's provisions eligible for inclusion in the GRCL are deducted from CET1.

APS 111 requires the Group to reduce CET1 when the amount of regulatory expected losses is in excess of APRA defined eligible provisions.

Collective Provisions

The expected credit loss (ECL) impairment model is used by the Group to calculate collective provisions. ECL is a probability weighted expected credit loss estimated by evaluating a range of possible outcomes and taking into account the time value of money, past events, current conditions and forecasts of future economic conditions.

The Group uses the following AASB 9 collective provisioning models in calculating ECL for significant portfolios:

- Retail lending: Personal Loans model, Credit Cards model, Home Loans model, Retail SME model; and
- Non-retail lending: Corporate Risk Rated model, Asset Finance model.

For each significant portfolio ECL is calculated as a product of the following credit risk factors at a facility level:

- Probability of default (PD): The likelihood that a debtor will be unable to pay its obligations in full without having to take actions such as realising on security, or that the debtor will become 90 days overdue on an obligation or contractual commitment;
- Exposure at default (EAD): Expected Balance Sheet exposure at default. The Group generally calculates EAD as the higher of the drawn balance and total credit limit except for the credit cards portfolio, for which the EAD calculation also takes into account the probability of unused limits being drawn down; and
- LGD: The amount that is not expected to be recovered following default.

Credit risk factors of PD and LGD used in the ECL calculation are point-in-time estimates based on current conditions and adjusted to include the impact of multiple probability weighted future forecast economic scenarios. This is distinct from the long-run and downturn estimates used for regulatory purposes described in Section 8.5.

Individually Assessed Provisions

Individually assessed provisions are made against financial assets that are individually significant, or which have been individually assessed as impaired.

Defaulted exposures with an expected loss in excess of \$20,000 are assessed for impairment through an Individually Assessed Provisions (IAP) process. Impairment provisions on these exposures are calculated directly as the difference between the defaulted asset's carrying value and the present value of expected future cash flows including cash flows, from realisation of collateral, where applicable.

General Reserve for Credit Losses

All provisions for impairment assessed on an individual basis, in accordance with Australian Accounting Standards, are classified as specific provisions in accordance with APS 220. Most of the collective provisions raised under Australian Accounting Standards are included in the GRCL, however, certain collective provisions not eligible for inclusion in the GRCL are classified as specific provisions. This includes, for example, collective provisions on retail products that are in default.

Effective 31 December 2019 the Group's GRCL methodology has been aligned to the methodology for collective provisions under AASB 9 which prescribes lifetime expected credit losses on stage 2 loans that have experienced a Significant Increase in Credit Risk (SICR) since origination.

Credit Risk (continued)

Reconciliation of Australian Accounting Standards and APS 220 based credit provisions and APS 330 Table 7j – General reserve for credit losses

	30 June 2020		
	General reserve for credit losses ¹	Specific provision ¹	Total provisions
	\$M	\$M	\$M
Collective provision ²	4,902	494	5,396
Individual provisions ²	–	967	967
Total provisions	4,902	1,461	6,363
Additional GRCL requirement ³	–	–	–
Total regulatory provisions	4,902	1,461	6,363

1 Provisions classified according to APS 220.

2 Provisions according to Australian Accounting Standards.

3 Effective 31 December 2019, the Group's GRCL methodology results in an amount lower than the provision recognised for accounting purposes, resulting in no additional GRCL requirement.

	31 December 2019		
	General reserve for credit losses ¹	Specific provision ¹	Total provisions
	\$M	\$M	\$M
Collective provision ²	3,663	404	4,067
Individual provisions ²	–	959	959
Total provisions	3,663	1,363	5,026
Additional GRCL requirement ³	–	–	–
Total regulatory provisions	3,663	1,363	5,026

1 Provisions classified according to APS 220.

2 Provisions according to the Australian Accounting Standards.

3 Effective 31 December 2019, the Group's GRCL methodology results in an amount lower than the provision recognised for accounting purposes, resulting in no additional GRCL requirement.

	30 June 2019		
	General reserve for credit losses ¹	Specific provision ¹	Total provisions
	\$M	\$M	\$M
Collective provision ²	3,510	394	3,904
Individual provisions ²	–	895	895
Total provisions	3,510	1,289	4,799
Additional GRCL requirement ³	515	–	515
Total regulatory provisions	4,025	1,289	5,314

1 Provisions classified according to APS 220.

2 Provisions according to the Australian Accounting Standards.

3 The Group has recognised a deduction from CET1 of \$515 million in order to maintain the required minimum GRCL.

Credit Risk (continued)

The following tables provide a summary of the Group's financial losses by portfolio type, industry and geography.

APS 330 Table 7f (i) – Impaired, past due, specific provisions and write-offs charged by industry sector

Industry Sector	30 June 2020				
	Impaired assets	Past due loans ≥ 90 days ¹	Specific provision balance ²	Net full year charges for individual provisions	Full year actual losses ³
	\$M	\$M	\$M	\$M	\$M
Home loans	1,673	2,710	424	82	116
Other personal	279	45	278	6	552
Asset finance	121	4	45	17	17
Sovereign	–	–	–	–	–
Bank	–	–	–	(7)	–
Other finance	6	8	5	2	5
Agriculture	249	85	73	4	33
Mining	164	4	38	7	14
Manufacturing	261	48	183	145	14
Energy	–	–	–	–	–
Construction	63	39	41	(2)	36
Wholesale/retail trade	143	86	69	80	78
Transport and storage	184	17	63	51	22
Property	78	128	63	5	9
Other	327	187	179	85	126
Total	3,548	3,361	1,461	475	1,022

1 Represents loans ≥ 90 days past due but not impaired.

2 Specific provision balance includes certain Australian Accounting Standards collective provisions on some defaulted loans.

3 Actual losses equal write-offs from individual provisions, write-offs direct from collective provisions less recoveries of amounts previously written off, for the year ended 30 June 2020.

Credit Risk (continued)

APS 330 Table 7f (i) – Impaired, past due, specific provisions and write-offs charged by industry sector (continued)

Industry Sector	31 December 2019				
	Impaired assets \$M	Past due loans ≥ 90 days ¹ \$M	Specific provision balance ² \$M	Net half year charges for individual provisions \$M	Half year actual losses ³ \$M
Home loans	1,854	2,479	420	55	55
Other personal	243	28	238	1	282
Asset finance	73	1	22	15	11
Sovereign	–	–	–	–	–
Bank	–	–	–	(9)	–
Other finance	6	6	4	1	3
Agriculture	325	79	78	–	28
Mining	108	2	29	–	13
Manufacturing	208	35	150	87	4
Energy	–	–	–	–	–
Construction	93	34	82	6	3
Wholesale/retail trade	121	111	90	42	19
Transport and storage	65	20	28	2	1
Property	69	169	59	–	5
Other	218	190	163	3	44
Total	3,383	3,154	1,363	203	468

1 Represents loans ≥ 90 days past due but not impaired.

2 Specific provision balance includes certain Australian Accounting Standards collective provisions on some defaulted loans.

3 Actual losses equal write-offs from individual provisions, write-offs direct from collective provisions less recoveries of amounts previously written off, for the half year ended 31 December 2019.

Credit Risk (continued)

APS 330 Table 7f (i) – Impaired, past due, specific provisions and write-offs charged by industry sector (continued)

Industry Sector	30 June 2019				
	Impaired assets \$M	Past due loans ≥ 90 days ¹ \$M	Specific provision balance ² \$M	Net full year charges for individual provisions \$M	Full year actual losses ³ \$M
Home loans	1,807	2,768	375	127	131
Other personal	294	27	270	7	677
Asset finance	81	2	15	11	15
Sovereign	–	–	–	–	–
Bank	9	–	9	–	–
Other finance	7	8	5	(1)	6
Agriculture	417	68	97	92	61
Mining	183	4	42	41	27
Manufacturing	143	30	68	29	9
Energy	–	–	–	–	–
Construction	170	37	76	93	45
Wholesale/retail trade	119	109	63	30	17
Transport and storage	68	17	27	28	85
Property	70	110	59	(10)	14
Other	254	157	183	30	108
Total	3,622	3,337	1,289	477	1,195

1 Represents loans ≥ 90 days past due but not impaired.

2 Specific provision balance includes certain Australian Accounting Standards collective provisions on some defaulted loans.

3 Actual losses equal write-offs from individual provisions, write-offs direct from collective provisions less recoveries of amounts previously written off, for the year ended 30 June 2019.

Factors impacting the loss experience

The overall quality of the portfolio has deteriorated during the financial year ended 30 June 2020. Gross impaired assets as a proportion of gross loans and advances (GLAAs) decreased by 2 basis points during the financial year ended 30 June 2020. Total provisions as a proportion of GLAAs increased by 19 basis points to 0.82%, mainly driven by the deterioration in the economic outlook and increases in forward looking adjustments predominantly due to COVID-19. Group actual losses decreased by \$173 million on the prior year led by a reduction in losses for the retail portfolios.

Credit Risk (continued)

APS 330 Table 7f (ii) – Impaired, past due, specific provisions and write-offs charged by portfolio

Portfolio	30 June 2020				
	Impaired assets	Past due loans ≥ 90 days ¹	Specific provision balance ²	Net full year charges for individual provisions	Full year actual losses ³
	\$M	\$M	\$M	\$M	\$M
Corporate including SME, specialised lending and central counterparties	1,596	606	759	394	354
Sovereign	–	–	–	–	–
Bank	–	–	–	(7)	–
Residential mortgage	1,673	2,710	424	82	116
Qualifying revolving retail	143	–	114	–	225
Other retail	136	45	164	6	327
Total	3,548	3,361	1,461	475	1,022

1 Represents loans ≥ 90 days past due but not impaired.

2 Specific provision balance includes certain accounting collective provisions on some defaulted loans.

3 Actual losses equal write-offs from individual provisions, write-offs direct from collective provisions less recoveries of amounts previously written off for the year ended 30 June 2020.

Portfolio	31 December 2019				
	Impaired assets	Past due loans ≥ 90 days ¹	Specific provision balance ²	Net half year charges for individual provisions	Half year actual losses ³
	\$M	\$M	\$M	\$M	\$M
Corporate including SME, specialised lending and central counterparties	1,286	647	705	156	131
Sovereign	–	–	–	–	–
Bank	–	–	–	(9)	–
Residential mortgage	1,854	2,479	420	55	55
Qualifying revolving retail	108	–	93	(1)	118
Other retail	135	28	145	2	164
Total	3,383	3,154	1,363	203	468

1 Represents loans ≥ 90 days past due but not impaired.

2 Specific provision balance includes certain accounting collective provisions on some defaulted loans.

3 Actual losses equal write-offs from individual provisions, write-offs direct from collective provisions less recoveries of amounts previously written off for the half year ended 31 December 2019.

Portfolio	30 June 2019				
	Impaired assets	Past due loans ≥ 90 days ¹	Specific provision balance ²	Net full year charges for individual provisions	Full year actual losses ³
	\$M	\$M	\$M	\$M	\$M
Corporate including SME, specialised lending and central counterparties	1,506	542	635	343	387
Sovereign	–	–	–	–	–
Bank	9	–	9	–	–
Residential mortgage	1,807	2,768	375	127	131
Qualifying revolving retail	138	–	125	–	292
Other retail	162	27	145	7	385
Total	3,622	3,337	1,289	477	1,195

1 Represents loans ≥ 90 days past due but not impaired.

2 Specific provision balance includes certain accounting collective provisions on some defaulted loans.

3 Actual losses equal write-offs from individual provisions, write-offs direct from collective provisions less recoveries of amounts previously written off for the year ended 30 June 2019.

Credit Risk (continued)

APS 330 Table 7g (i) – Impaired, past due and specific provisions by geographic region

Geographic Region ¹	30 June 2020		
	Impaired assets \$M	Past due loans ≥ 90 days ² \$M	Specific provision balance \$M
Australia	2,416	3,061	1,078
New Zealand	681	223	196
Other	451	77	187
Total	3,548	3,361	1,461

Geographic Region ¹	31 December 2019		
	Impaired assets \$M	Past due loans ≥ 90 days ² \$M	Specific provision balance \$M
Australia	2,523	2,994	1,146
New Zealand	573	103	80
Other	287	57	137
Total	3,383	3,154	1,363

Geographic Region ¹	30 June 2019		
	Impaired assets \$M	Past due loans ≥ 90 days ² \$M	Specific provision balance \$M
Australia	2,890	3,192	1,123
New Zealand	521	96	98
Other	211	49	68
Total	3,622	3,337	1,289

1 Balances are reported based on the risk domicile of the borrower. The Group's financial statements disclose balances based on the domicile of the lending entity.

2 Represents loans ≥ 90 days past due but not impaired.

The Group's GRCL (before tax) by geographic region is distributed as follows:

APS 330 Table 7g (ii) – GRCL by geographic region

Geographic Region	30 Jun 20 \$M	31 Dec 19 \$M	30 Jun 19 \$M
Australia	4,160	3,164	3,527
New Zealand	417	294	304
Other	325	205	194
Total GRCL	4,902	3,663	4,025

Credit Risk (continued)

APS 330 Table 7h (i) – Movement in collective provisions and general reserve for credit losses

	Half Year Ended		
	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Movement in Collective Provisions			
Opening balance	4,067	3,904	3,814
Net charge against profit and loss	1,598	446	412
Recoveries	84	101	102
Other	4	22	39
Write-offs	(357)	(406)	(463)
Total collective provisions	5,396	4,067	3,904
Less collective provisions transferred to specific provisions	(494)	(404)	(394)
Additional GRCL requirement ¹	–	–	515
General reserve for credit losses	4,902	3,663	4,025

¹ The Group has recognised these amounts as a deduction from CET1 in order to maintain the required minimum GRCL.

APS 330 Table 7h (ii) – Movement in individual provisions and specific provisions

	Half Year Ended		
	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Movement in Individual Provisions			
Opening balance for the period	959	895	920
Net new and increased provisioning	371	287	271
Net write back of provisions no longer required	(99)	(84)	(59)
Discount unwind to interest income	(5)	(11)	(13)
Other	22	35	32
Write-offs	(281)	(163)	(256)
Total individual provisions	967	959	895
Add collective provisions transferred to specific provisions	494	404	394
Specific provisions	1,461	1,363	1,289

Credit Risk (continued)

8.4 Portfolios Subject to Standardised and Supervisory Risk Weights

The standardised approach is also used by the Group where portfolios or segments are considered as immaterial by the size of exposure or where APRA requires a standardised approach to be used.

Portfolios that use the standardised approach include:

CBA:

- Some retail SMEs (overdrawn accounts);
- Non-rated corporate exposures;
- Some residential mortgages (including purchased portfolios and reverse mortgages);
- Margin lending;
- Non-recourse purchased receivables;
- Some branches; and
- Central counterparties.

Bankwest:

- Some residential mortgages (equity lines of credit); and
- Some unsecured consumer retail (personal cheque accounts).

ASB:

- Personal loans and Retail SME.

All exposures in the following entities:

- CBE; and
- PTBC.

The Group continues to review portfolios that use the standardised approach. Approval to apply the advanced approach will be sought from APRA when the size of exposures and number of customers within these portfolios are sufficient to qualify for advanced approaches.

Risk weights pertaining to retail and SME corporate standardised portfolios have been applied in accordance with APRA Prudential Standard APS 112 “Capital Adequacy: Standardised Approach to Credit Risk” (APS 112) and with consideration to the type of collateral held and past due status. In respect of loans secured by residential mortgages, consideration is given with respect to the Loan to Value Ratio (LVR) and whether mortgage insurance is held.

The Group’s definition of internal risk ratings used for corporate, bank and sovereign exposures has been aligned to equivalent rating grades provided by external credit assessment institutions including S&P Global Ratings and Moody’s Investors Services.

APRA requires certain specialised lending exposures including Income Producing Real Estate, Object and Project Finance to be assigned specific risk weights according to “slotting” criteria defined by the regulator.

The Group recognises assets for lease on the Balance Sheet. The residual value of the asset is risk weighted at 100% under the standardised approach (APS 112) and the net present value of the lease payment stream is risk weighted based on the internal risk rating of the lessee (APS 113). Severe disruption to the aviation sector caused by international travel bans was deemed an indicator of impairment and an impairment loss of \$82 million was recognised during the period. Further disclosure is included in the 2020 Annual Report Note 1.1.

APS 330 Table 8b – Exposures subject to standardised and supervisory risk weights

	Exposure after credit risk mitigation ¹		
	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Standardised Approach Exposures			
Risk Weight			
0%	5,115	4,400	3,104
20%	3,385	3,537	3,606
35%	10,156	9,249	9,460
50%	3,808	3,833	4,075
75%	846	864	908
100%	16,176	17,866	17,393
150%	42	10	18
> 150%	–	–	1
Capital deductions	–	–	–
Total	39,528	39,759	38,565

1 Exposure after credit risk mitigation does not include central counterparties, equity or securitisation exposures.

Credit Risk (continued)

Other Assets risk weights

	30 June 2020		
	Exposure \$M	Risk weight %	RWA \$M
Other Assets ¹			
Cash	5,109	–	–
Cash items in course of collection	976	20	195
Margin lending ²	2,309	29	681
Fixed and forward purchase assets	4,429	100	4,429
Other	4,976	≥100	4,976
Total	17,799	58	10,281

	31 December 2019		
	Exposure \$M	Risk weight %	RWA \$M
Other Assets ¹			
Cash	4,394	–	–
Cash items in course of collection	897	20	179
Margin lending ²	2,570	29	755
Fixed and forward purchase assets	3,836	100	3,836
Other	4,981	≥100	4,982
Total	16,678	58	9,752

	30 June 2019		
	Exposure \$M	Risk weight %	RWA \$M
Other Assets ¹			
Cash	3,099	–	–
Cash items in course of collection	942	20	188
Margin lending ²	2,632	30	795
Fixed and forward purchase assets	1,460	100	1,460
Other	6,400	≥100	6,411
Total	14,533	61	8,854

1 Other Assets are included in Standardised Approach Exposures table above.

2 Margin lending against listed instruments is risk weighted at 20%. Other unlisted instruments are risk weighted at 100%.

	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Specialised Lending Exposures Subject to Supervisory Slotting ¹			
Risk Weight			
0%	313	367	401
70%	18,873	18,942	17,368
90%	39,804	39,391	37,883
115%	6,690	4,824	4,808
250%	753	706	806
Total exposures	66,433	64,230	61,266

1 APRA requires specialised lending exposures including Income Producing Real Estate, Object and Project Finance to be assigned specific risk weights according to "slotting" criteria defined by the Regulator.

Credit Risk (continued)

8.5 Portfolios Subject to Internal Ratings-based Approaches

The Group, with the exception of some relatively small portfolios, is accredited to use AIRB approaches to calculate its capital requirements under APRA Prudential Standard APS 113 “Capital Adequacy: Internal Ratings-based Approach to Credit Risk” (APS 113).

Credit Risk Measurement

The measurement of credit risk is based on an internal credit risk rating system which uses expert judgement and analytical tools to calculate AIRB credit risk estimates, including obligor PD, facility LGD, and facility EAD. These are inputs into the estimation of Expected Loss (EL) and Unexpected Loss (UL) for the credit portfolio.

The Model Risk Governance Committee oversees Group credit rating models and processes to ensure appropriate credit risk estimates are developed and used, model performance is reviewed on a regular basis and that there is consistency across BU credit models as appropriate.

Probability of Default

The PD, expressed as a percentage, is the estimate of the probability that an obligor will default within a one year period. It reflects an obligor’s ability to generate sufficient cash flows in the future to meet the terms of all of its credit obligations to the Group. The PD rating methodology applied to the various segments of the credit portfolio is shown in APS 330 Table 9c (page 41).

PD estimates are based on a long-run average default rate based on the Group’s historical data, supplemented with external data where applicable. Customer risk characteristics and account performance criteria are used to define retail risk pools. Pools may be combined to ensure the number of exposures within a given pool is sufficient to allow quantification of reliable estimates and to facilitate validation of loss characteristics at the pool level.

Models are independently validated and in addition, confidence intervals are calculated to statistically demonstrate that retail pools meaningfully differentiate risk. PD model results are calibrated to obtain long-run PDs that reflect the central tendency over a full economic cycle.

The credit risk portfolio has two major PD rating segments:

- (i) Risk-Rated; and
- (ii) Retail Managed.

(i) Risk-Rated Segment

This segment comprises non-retail exposures including bank and sovereign exposures. Non-retail exposures to clients with turnover less than \$50 million that are required to be risk-rated and individually managed under the Group’s internal credit policy are classified under the SME corporate asset class.

The credit risk rating system for corporate customer exposures currently in use includes 24 PD grades (16 performing, 6 weak/doubtful, 1 restructured, 1 defaulted).

Obligors that are risk-rated have their PD rating assigned via expert judgement and the appropriate PD Rating Tool. Obligors whose PD ratings are assigned via expert judgement include banks, sovereigns and/or large corporate customers with turnover \$50 million and greater. Under expert judgement, PD ratings are assigned based on the expert knowledge of the credit officer conducting the review. The credit officer may use multiple

rating inputs to assist with the rating decision, including the use of internal PD Rating Tools, the ratings assigned by an external rating agency, benchmark rating criteria, management capability and integrity, market or other relevant information.

PD Rating Tools are used to form a benchmark in the rating process and are based on customer financials and a number of management related questions.

For the Business and Private Banking BUs across the Group (including within CBA and ASB), PD Rating Tools are the primary method of assigning a PD rating. PD Rating Tools are statistical models designed to predict the rating outcome under expert judgement. Ratings are assigned based on the responses to a series of questions relating to the financial condition of the customer’s business, as well as questions relating to management capability and integrity. The responses are weighted by their importance in predicting credit quality and are used to calculate an overall score upon which the PD rating is determined.

The PD rating reflects the estimated probability of default for that grade over a one year horizon. The Group uses a through-the-cycle (TTC) approach whereby PD ratings are based on longer term considerations to capture a company’s ability to perform through a credit cycle. External rating agencies also use a TTC PD rating approach.

The Group’s PD rating criteria reflect both long-run and current considerations of the financial health of an obligor.

PD ratings fall within the following major categories:

- Exceptional – (A0 through to A3) – a strong profit history with principal and interest repayments covered by large stable surpluses;
- Strong – (B1 through to C3) – a strongly performing business with principal and interest payments well protected by stable cash operating surpluses;
- Pass – (D1 through to E3) – a soundly performing business with sufficient operating cash surpluses to meet all principal and interest repayments;
- Weak/Doubtful – (F1 through to G3) – profitability has been weak and the capacity to meet principal and interest payments is weak or doubtful;
- Restructured – (R) – concessions of interest and/or principal obligations have been provided due to the customer’s financial difficulties, rendering the facility non-commercial to the Group. Restructured facilities are treated as impaired assets; and
- Default – (H) – the obligation is in default (see below).

A PD rating of “Pass” grade or above qualifies the obligor for approval of new facilities or increased exposure on normal commercial terms. An obligor whose PD rating is “Weak” (excluding F grade – well secured) or “Default” is not eligible for new facilities or increased exposure unless it will facilitate rehabilitation or protect or improve the Group’s position by maximising recovery prospects.

Assignments of obligor PD ratings are reviewed at least annually with higher risk exposures being reviewed more frequently. Rating reviews are also initiated when material new information on an obligor comes to light.

Credit Risk (continued)

Probability of Default (continued)

For the purpose of determining the PD rating, default is defined as any one of the following:

- The customer is 90 days or more overdue on a scheduled credit obligation repayment; or
- The customer is unlikely to repay their credit obligation to the Group in full, without the Group taking action such as realising available security.

Material deviations from the reference default definition are not permitted.

The Group's mapping of internal rating scales for risk-rated exposures to external rating agencies is detailed in APS 330 Table 9b (page 41).

(ii) Retail Managed Segment

This segment has sub-segments covering housing loan, credit card, personal loan facilities, and personal overdrafts. It also includes most non-retail lending where the aggregated credit exposure to a group of related obligors is less than \$1 million.

The Group has been using scorecards to "auto-decision" loan applications for over 20 years in its consumer retail divisions and more recently for SME retail applications. These are auto-decided for the approval of credit using a scorecard approach whereby the performance of historical applications is supplemented by information from a credit reference bureau and/or from the Group's existing knowledge of a customer's behaviour. Loan applications that do not meet scorecard auto-decisioning requirements may be referred to a Personal Credit Approval Authority for manual decisioning.

Customers with similar characteristics, products and subject to the same origination process are allocated the same PD.

Portfolios in the Retail Managed Segment are managed using behavioural scoring systems and a delinquency band approach (e.g. actions taken when loan payments are greater than 30 days past due differ from actions when payments are greater than 60 days past due) and are reviewed by the relevant Risk Management SU. Loans past due are reviewed by the relevant Arrears Management or Financial Assistance Team.

Financial assets in the retail segment are classified as secured or unsecured. Unsecured facilities (e.g. credit cards) are considered impaired at 90 days past due and are generally written off once they reach 180 days past due (unless arrangements have been made between the borrower and the Group).

Secured facilities (e.g. home loans) are classified as impaired when a facility is 90 days past due and it is not well secured, the facility has been formally restructured or judgement is made that there is reasonable evidence that the customer is unable to meet contractual obligations and it is not well secured.

Common PD, EAD and LGD methodologies are followed in constructing the internal ratings process for residential mortgages, qualifying revolving retail exposures and other retail advances with the default definition applied when payment on a facility is 90 days or more past due, or indications of unlikelihood to pay (e.g. a write-off amount exists against the facility).

Loss Given Default

LGDs are derived using data from accounts that were in default during any given month within the modelling observation period.

LGD is estimated as the net present value of the post default loss, including an allowance for internal and external costs, expressed as a percentage of the EAD.

Amounts recovered and the associated costs of recovery after the point of default are discounted using an appropriate discount rate inclusive of a risk premium.

LGD is impacted by:

- The level of security cover and the type of collateral held;
- Liquidity and volatility of collateral value;
- Carrying costs (effectively the costs of providing a facility that is not generating an interest return); and
- Realisation costs.

For calculating regulatory capital an estimated downturn LGD is used that reflects likely recovery rates under stressed economic conditions except for residential mortgages, where a 20% floor has been determined by APRA.

It is recognised that some accounts will cure after entering default. Cure rates are an important aspect of estimating a downturn LGD that is consistent with economic recession conditions.

For corporate and SME corporate customers, an LGD rating is applied based on the security cover ratio, after taking into consideration the security lending margins applied to various security asset types. The LGD rating provides an estimate of the likely loss in the event of default, based on past experience. Secured commercial exposures receive an LGD rating of A-F. By way of examples:

- A rating of A is applied only to very well secured exposures where the security cover ratio exceeds 140%;
- An LGD rating of C reflects a security cover ratio of 100%; and
- An LGD rating of F applies where the security cover is less than 40%.

Unsecured large corporate customers, banks and sovereigns receive an LGD rating of J-N, depending on their PD rating and the existence of covenants.

For retail exposures, accounts are segmented into homogeneous LGD pools based on product/loan type and other relevant attributes.

The Group has policies and procedures in place setting out the circumstances where acceptable and appropriate collateral is to be taken, including valuation parameters, review frequency and independence of valuation.

Collateral types are discussed in further detail in section 8.6 "Credit Risk Mitigation" (page 51).

Exposure at Default

EAD is the estimate of the amount of a facility that will be outstanding in the event of default.

For defaulted facilities, it is the actual amount outstanding at the time of default.

For non-defaulted committed facilities, it is based on the actual amount outstanding, plus the undrawn amount multiplied by a credit conversion factor, which represents the potential rate of conversion from the undrawn amount 12 months prior to default, to the drawn amount at default. For most committed facilities, the Group applies a credit conversion factor of 100% to the undrawn amount. For uncommitted facilities the EAD will generally be the drawn balance only.

For retail exposures, a modelling approach can be used based on factors including limit usage, arrears and loan type to segment accounts into homogeneous pools for the calculation.

Credit Risk (continued)

Expected Loss

Regulatory EL is calculated as the product of PD, EAD and LGD.

Regulatory EL is reported for both defaulted and non-defaulted exposures. For non-defaulted exposures, regulatory EL is based on the quality of exposures at a point in time using long-run PDs and downturn LGDs as required by APRA. For defaulted exposures, regulatory EL is based on the best estimate of loss.

Regulatory EL for Specialised Lending exposures is prescribed by APRA's Supervisory Slotting approach. Regulatory EL is not required to be calculated on standardised portfolios.

Unexpected Loss

The UL for each portfolio segment is calculated based on a given level of confidence that the magnitude of the UL will not be exceeded with a known probability. UL represents the difference between EL and the point on the loss distribution associated with the required level of probability that the loss is not to exceed. The Group holds capital to cover the UL.

There are two measures of UL, the regulatory measure used to determine the regulatory capital requirement, and an internal measure based on the Group's economic capital model.

The regulatory measure is calculated based on the Basel III Framework using a 99.9% probability that UL will not be exceeded.

Economic Capital

The economic capital measure takes into account portfolio specific characteristics (e.g. industry segment) and allows for diversification effects between obligors within a portfolio segment, as well as across different portfolio segments.

Uses of Internal Estimates of Credit Risk Components other than for Regulatory Capital Purposes

The Group uses its internal estimates of PD, LGD and EAD for a number of activities other than for AIRB regulatory capital purposes. They include:

- Management of credit risk concentrations - through the Large Credit Exposure, Industry Sector Concentration and Country Risk Exposure policies;
- Loan origination and credit quality control - through the generation and monitoring of credit risk ratings;
- Calculation of some accounting collective provisions;
- Capital budgeting - through modelling of business plans under expected and stressed scenarios; and
- Aligning risk culture to the Group's risk appetite - through its internal risk-based-pricing performance framework ensuring the Group generates appropriate economic returns through its risk-pricing framework at both:
 - (i) a transactional level where long-run EL is factored into interest margins and fees; and
 - (ii) at a portfolio level via Profit After Capital Charge and Return on Target Equity frameworks.

Credit Risk Ratings System

The Credit Risk Rating (CRR) is assigned by reference to a matrix that maps the PD and long-run LGD to a number commensurate with EL.

The Group uses its credit risk estimates to price transactions, measure performance and help determine the amount of capital required to support business activities.

The Group's credit risk estimates are subject to annual review in accordance with a Board Risk and Compliance Committee approved Model Policy to ensure independent validation and testing of assigned risk estimates.

APS 330 Table 9b – Internal ratings structure for credit risk exposures and mapping to external ratings

Description	Internal Rating	Probability of Default	S&P Rating	Moody's Rating
Exceptional	A0 to A3	0% - 0.035%	AAA to AA-	Aaa to Aa3
Strong	B1 to C3	>0.035% - 0.446%	A+ to BBB-	A1 to Baa3
Pass	D1 to E3	>0.446% - 6.656%	BB+ to B-	Ba1 to B3
Weak/Doubtful	F1 to G3	>6.656%	CCC to C	Caa to Ca
Restructured	R	30.998%	-	-
Defaulted	H	100%	D	C

APS 330 Table 9c – PD rating methodology by portfolio segment

Portfolio Segment	PD Rating Methodology
Bank and sovereign exposures	Expert judgement assigned risk rating, informed but not driven by rating agency views.
Large corporate exposures	Combination of expert judgement and PD Rating Tool assigned risk ratings depending on the industry sector.
SME corporate exposures	PD Rating Tool and expert judgement assigned risk rating.
SME retail exposures < \$1m	SME behaviour score assigned PD pools.
Consumer retail exposures (including residential mortgages, qualifying revolving credit and other retail)	Depending on the product, PD pools are assigned using product specific application scorecards, behavioural scorecards, payment status or a combination thereof.

Credit Risk (continued)

Credit Risk Exposure Subject to the AIRB Approach

APS 330 Table 9d (i) – Non-retail exposures by portfolio type and PD band

	30 June 2020							Total
	PD Band							
Non-retail ¹	0 < 0.03%	0.03% < 0.15%	0.15% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total credit risk exposures								
Corporate	–	42,063	45,158	32,828	671	1,297	950	122,967
SME corporate	–	753	4,078	41,581	2,234	1,996	1,214	51,856
SME retail ²	–	–	1,205	11,846	3,187	569	315	17,122
Sovereign	95,304	12,597	218	5	–	–	–	108,124
Bank	–	22,506	1,648	20	–	–	–	24,174
Total	95,304	77,919	52,307	86,280	6,092	3,862	2,479	324,243
Undrawn commitments³								
Corporate	–	18,558	16,964	9,664	244	261	135	45,826
SME corporate	–	135	937	6,995	264	157	68	8,556
SME retail ²	–	–	1,038	3,805	677	73	17	5,610
Sovereign	856	225	36	2	–	–	–	1,119
Bank	–	308	95	1	–	–	–	404
Total	856	19,226	19,070	20,467	1,185	491	220	61,515
Exposure - weighted average EAD (\$M)								
Corporate	–	3.038	1.936	0.866	0.425	0.887	1.923	1.564
SME corporate	–	0.563	0.498	0.480	0.395	0.413	0.490	0.475
SME retail ²	–	–	0.077	0.056	0.067	0.079	0.088	0.060
Sovereign	7.108	18.283	0.697	0.123	–	–	–	7.475
Bank	–	1.909	0.724	0.077	–	–	–	1.687
Exposure - weighted average LGD (%)								
Corporate	–	55.5	47.2	42.1	40.9	48.8	51.2	48.7
SME corporate	–	56.9	31.3	28.7	30.4	31.3	32.9	29.6
SME retail ²	–	–	40.5	32.7	40.0	29.5	33.3	34.5
Sovereign	5.7	12.6	44.4	48.4	–	–	–	6.6
Bank	–	59.5	60.0	60.0	–	–	–	59.5
Exposure - weighted average risk weight (%)^{4,5}								
Corporate	–	27.6	53.3	86.8	152.7	263.0	103.2	56.6
SME corporate	–	24.5	31.1	53.3	88.4	146.2	197.5	59.6
SME retail ²	–	–	27.8	45.8	87.1	110.7	272.9	58.6
Sovereign	1.5	2.5	33.3	131.2	–	–	–	1.7
Bank	–	25.2	58.5	125.6	–	–	–	27.6

1 Total credit risk exposures do not include specialised lending, equity or securitisation exposures.

2 Including SME retail secured by residential property.

3 The credit exposure value of undrawn commitments included in Total credit risk exposures above.

4 Includes 1.06 scaling factor.

5 In June 2020, AASB 9 collective provisions were included in the calculation of credit RWA for defaulted non-retail exposures. This change in methodology was approved by APRA.

Credit Risk (continued)

APS 330 Table 9d (i) – Non-retail exposures by portfolio type and PD band (continued)

	31 December 2019							Total \$M
	PD Band							
Non-retail ¹	0 < 0.03% \$M	0.03% < 0.15% \$M	0.15% < 0.5% \$M	0.5% < 3% \$M	3% < 10% \$M	10% < 100% \$M	Default \$M	
Total credit risk exposures								
Corporate	–	44,764	44,898	29,891	620	797	587	121,557
SME corporate	–	619	4,019	41,597	2,232	2,009	1,348	51,824
SME retail ²	–	–	1,023	11,610	2,940	439	199	16,211
Sovereign	80,550	9,924	222	12	–	–	–	90,708
Bank	–	24,853	1,953	3	–	–	–	26,809
Total	80,550	80,160	52,115	83,113	5,792	3,245	2,134	307,109
Undrawn commitments³								
Corporate	–	17,583	17,914	8,376	205	153	36	44,267
SME corporate	–	88	942	6,876	246	159	87	8,398
SME retail ²	–	–	911	3,664	480	63	11	5,129
Sovereign	806	388	29	2	–	–	–	1,225
Bank	–	291	86	–	–	–	–	377
Total	806	18,350	19,882	18,918	931	375	134	59,396
Exposure - weighted average EAD (\$M)								
Corporate	–	2. 920	1. 973	0. 796	0. 454	0. 633	2. 198	1. 548
SME corporate	–	0. 465	0. 538	0. 478	0. 410	0. 375	0. 466	0. 473
SME retail ²	–	–	0. 072	0. 055	0. 077	0. 066	0. 071	0. 060
Sovereign	6. 876	9. 506	0. 519	0. 090	–	–	–	6. 810
Bank	–	1. 946	0. 678	0. 043	–	–	–	1. 705
Exposure - weighted average LGD (%)								
Corporate	–	54. 9	46. 9	41. 4	37. 9	45. 3	57. 3	48. 5
SME corporate	–	58. 1	30. 4	28. 7	30. 6	31. 5	33. 0	29. 5
SME retail ²	–	–	37. 2	31. 6	36. 7	31. 0	38. 0	33. 0
Sovereign	5. 7	12. 4	52. 8	49. 4	–	–	–	6. 6
Bank	–	59. 6	60. 0	60. 0	–	–	–	59. 7
Exposure - weighted average risk weight (%)⁴								
Corporate	–	29. 8	54. 6	85. 1	139. 6	244. 6	195. 8	55. 3
SME corporate	–	28. 0	30. 6	52. 7	88. 8	146. 1	246. 8	60. 9
SME retail ²	–	–	26. 0	45. 3	84. 7	107. 5	405. 4	57. 3
Sovereign	1. 6	2. 9	33. 0	106. 6	–	–	–	1. 9
Bank	–	27. 4	59. 3	99. 1	–	–	–	29. 7

1 Total credit risk exposures do not include specialised lending, equity or securitisation exposures.

2 Including SME retail secured by residential property.

3 The credit exposure value of undrawn commitments included in Total credit risk exposures above.

4 Includes 1.06 scaling factor.

Credit Risk (continued)

APS 330 Table 9d (i) – Non-retail exposures by portfolio type and PD band (continued)

	30 June 2019							Total
	PD Band							
	0 < 0.03%	0.03% < 0.15%	0.15% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Non-retail¹								
Total credit risk exposures								
Corporate	–	43,275	42,859	30,624	469	885	732	118,844
SME corporate	–	726	3,727	42,032	2,374	1,937	1,272	52,068
SME retail ²	–	–	1,075	12,183	2,785	408	193	16,644
Sovereign	81,994	7,703	196	12	–	–	–	89,905
Bank	–	31,520	1,936	60	–	–	124	33,640
Total	81,994	83,224	49,793	84,911	5,628	3,230	2,321	311,101
Undrawn commitments³								
Corporate	–	18,213	16,325	9,283	165	240	72	44,298
SME corporate	–	128	888	6,637	232	142	70	8,097
SME retail ²	–	–	922	3,573	355	56	9	4,915
Sovereign	831	223	31	2	–	–	–	1,087
Bank	–	336	112	–	–	–	–	448
Total	831	18,900	18,278	19,495	752	438	151	58,845
Exposure - weighted average EAD (\$M)								
Corporate	–	2.791	1.838	0.859	0.638	0.731	2.012	1.547
SME corporate	–	0.551	0.489	0.458	0.442	0.378	0.413	0.456
SME retail ²	–	–	0.038	0.055	0.080	0.065	0.089	0.057
Sovereign	7.179	9.326	0.288	0.094	–	–	–	6.879
Bank	–	2.677	0.799	0.541	–	–	123.736	2.349
Exposure - weighted average LGD (%)								
Corporate	–	54.9	47.3	41.7	46.7	46.1	49.0	48.6
SME corporate	–	58.3	29.8	28.9	29.7	32.0	33.7	29.7
SME retail ²	–	–	37.2	31.7	34.4	30.8	35.0	32.5
Sovereign	5.7	58.9	49.4	48.3	–	–	–	10.3
Bank	–	59.4	60.0	60.0	–	–	60.0	59.4
Exposure - weighted average risk weight (%)⁴								
Corporate	–	30.1	54.0	80.5	176.4	242.6	122.7	54.4
SME corporate	–	30.1	30.7	50.8	82.9	145.1	235.8	58.5
SME retail ²	–	–	35.6	50.6	90.4	114.8	363.1	61.5
Sovereign	1.6	13.3	38.5	96.2	–	–	–	2.7
Bank	–	26.2	57.4	122.3	–	–	–	28.1

1 Total credit risk exposures do not include specialised lending, equity or securitisation exposures.

2 Including SME retail secured by residential property.

3 The credit exposure value of undrawn commitments included in Total credit risk exposures above.

4 Includes 1.06 scaling factor.

Credit Risk (continued)

APS 330 Table 9d (ii) – Retail exposures by portfolio type and PD band

Retail	30 June 2020							Total
	PD Band							
	0 < 0.1%	0.1% < 0.3%	0.3% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total credit risk exposures								
Residential mortgage	189,231	118,352	68,379	199,934	11,866	6,972	4,779	599,513
Qualifying revolving retail	–	14,548	3,652	4,758	1,904	335	112	25,309
Other retail	52	42	47	5,499	3,459	624	132	9,855
Total	189,283	132,942	72,078	210,191	17,229	7,931	5,023	634,677
Undrawn commitments ¹								
Residential mortgage	41,773	13,894	6,864	10,102	162	59	17	72,871
Qualifying revolving retail	–	12,022	2,801	1,954	302	37	1	17,117
Other retail	47	3	35	2,692	273	85	4	3,139
Total	41,820	25,919	9,700	14,748	737	181	22	93,127
Exposure - weighted average EAD (\$M)								
Residential mortgage	0.280	0.293	0.269	0.271	0.272	0.226	0.266	0.277
Qualifying revolving retail	–	0.009	0.007	0.008	0.008	0.008	0.009	0.008
Other retail	0.004	0.349	0.005	0.006	0.010	0.002	0.004	0.006
Exposure - weighted average LGD (%)								
Residential mortgage	20.0	19.7	19.4	20.3	21.1	19.8	20.3	20.0
Qualifying revolving retail	–	84.8	84.3	84.5	84.2	84.1	84.5	84.6
Other retail	107.8	99.5	106.5	92.0	85.3	89.3	88.0	89.6
Exposure - weighted average risk weight (%) ^{2,3}								
Residential mortgage	4.4	12.6	20.4	41.4	101.0	133.9	149.8	24.7
Qualifying revolving retail	–	5.5	13.9	44.9	128.1	207.6	102.3	26.6
Other retail	26.6	45.0	70.4	110.5	132.8	192.6	145.1	123.0

1 The credit exposure value of undrawn commitments included in Total credit risk exposures above.

2 Includes 1.06 scaling factor.

3 In June 2020, AASB 9 collective provisions were included in the calculation of Credit RWA for defaulted retail exposures. This change in methodology was approved by APRA.

Credit Risk (continued)

APS 330 Table 9d (ii) – Retail exposures by portfolio type and PD band (continued)

Retail	31 December 2019							Total
	PD Band							
	0 < 0.1%	0.1% < 0.3%	0.3% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total credit risk exposures								
Residential mortgage	185,385	112,505	73,264	184,634	24,883	5,708	4,639	591,018
Qualifying revolving retail	195	14,781	3,661	5,445	2,099	405	93	26,679
Other retail	51	37	53	5,819	3,987	602	133	10,682
Total	185,631	127,323	76,978	195,898	30,969	6,715	4,865	628,379
Undrawn commitments ¹								
Residential mortgage	40,378	14,529	5,990	11,674	275	59	17	72,922
Qualifying revolving retail	162	11,548	2,661	1,996	291	44	–	16,702
Other retail	46	5	36	2,622	263	97	3	3,072
Total	40,586	26,082	8,687	16,292	829	200	20	92,696
Exposure - weighted average EAD (\$M)								
Residential mortgage	0.278	0.291	0.273	0.268	0.284	0.214	0.263	0.276
Qualifying revolving retail	0.004	0.009	0.008	0.009	0.008	0.008	0.008	0.009
Other retail	0.004	0.381	0.005	0.006	0.010	0.001	0.004	0.006
Exposure - weighted average LGD (%)								
Residential mortgage	20.0	19.7	19.4	20.3	20.5	19.8	20.3	20.0
Qualifying revolving retail	81.0	84.9	84.2	84.3	84.7	84.0	84.6	84.6
Other retail	108.1	99.4	105.8	91.9	85.4	90.7	88.0	89.5
Exposure - weighted average risk weight (%) ²								
Residential mortgage	4.4	13.1	20.2	39.0	89.7	133.7	173.5	25.0
Qualifying revolving retail	3.2	5.5	13.7	45.8	135.9	213.8	298.5	29.3
Other retail	27.2	45.0	70.0	111.0	133.0	194.1	370.7	126.3

¹ The credit exposure value of undrawn commitments included in Total credit risk exposures above.

² Includes 1.06 scaling factor.

Credit Risk (continued)

APS 330 Table 9d (ii) – Retail exposures by portfolio type and PD band (continued)

Retail	30 June 2019							Total
	PD Band							
	0 < 0.1%	0.1% < 0.3%	0.3% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total credit risk exposures								
Residential mortgage	177,945	111,412	72,247	178,830	26,083	6,418	4,801	577,736
Qualifying revolving retail	192	14,755	3,783	5,720	2,346	455	120	27,371
Other retail	54	32	47	8,127	2,138	621	152	11,171
Total	178,191	126,199	76,077	192,677	30,567	7,494	5,073	616,278
Undrawn commitments ¹								
Residential mortgage	39,130	14,364	5,858	10,812	279	519	17	70,979
Qualifying revolving retail	162	11,762	2,780	2,101	328	48	1	17,182
Other retail	47	8	34	2,675	255	95	2	3,116
Total	39,339	26,134	8,672	15,588	862	662	20	91,277
Exposure - weighted average EAD (\$M)								
Residential mortgage	0.273	0.287	0.270	0.263	0.283	0.225	0.265	0.272
Qualifying revolving retail	0.004	0.009	0.008	0.009	0.008	0.008	0.009	0.009
Other retail	0.004	0.313	0.004	0.008	0.008	0.001	0.005	0.006
Exposure - weighted average LGD (%)								
Residential mortgage	20.0	19.7	19.5	20.3	20.4	19.8	20.2	20.0
Qualifying revolving retail	81.0	84.9	84.2	84.3	84.7	84.0	84.6	84.6
Other retail	107.9	99.3	106.9	89.4	87.4	90.5	87.4	89.3
Exposure - weighted average risk weight (%) ²								
Residential mortgage	4.4	13.1	20.2	39.4	89.7	134.7	174.4	25.6
Qualifying revolving retail	3.2	5.5	13.7	45.9	136.4	213.1	299.7	31.0
Other retail	26.7	44.9	70.2	113.4	139.3	195.1	343.6	125.2

¹ The credit exposure value of undrawn commitments included in Total credit risk exposures above.

² Includes 1.06 scaling factor.

Credit Risk (continued)

Analysis of Losses

The following tables provide a summary of financial losses by AIRB portfolio (APS 330 Table 9e) and a comparison of financial losses to regulatory EL estimates (APS 330 Table 9f (i)).

APS 330 Table 9e – Actual losses by portfolio type

Portfolio Type	30 June 2020		
	Full year losses in reporting period		
	Gross write-offs	Recoveries	Actual losses
	\$M	\$M	\$M
Corporate	134	–	134
SME corporate	121	(9)	112
SME retail (including SME retail secured by residential mortgages)	64	(6)	58
Specialised lending	9	–	9
Total corporate including SME and specialised lending	328	(15)	313
Sovereign	–	–	–
Bank	–	–	–
Residential mortgage (excluding SME retail secured by residential mortgages)	121	(5)	116
Qualifying revolving retail	305	(80)	225
Other retail	367	(76)	291
Total AIRB and specialised lending portfolios	1,121	(176)	945

Portfolio Type	31 December 2019		
	Half year losses in reporting period		
	Gross write-offs	Recoveries	Actual losses
	\$M	\$M	\$M
Corporate	22	–	22
SME corporate	58	(4)	54
SME retail (including SME retail secured by residential mortgages)	33	(2)	31
Specialised lending	7	–	7
Total corporate including SME and specialised lending	120	(6)	114
Sovereign	–	–	–
Bank	–	–	–
Residential mortgage (excluding SME retail secured by residential mortgages)	57	(3)	54
Qualifying revolving retail	170	(45)	125
Other retail	185	(42)	143
Total AIRB and specialised lending portfolios	532	(96)	436

Portfolio Type	30 June 2019		
	Full year losses in reporting period		
	Gross write-offs	Recoveries	Actual losses
	\$M	\$M	\$M
Corporate	151	(1)	150
SME corporate	80	(4)	76
SME retail (including SME retail secured by residential mortgages)	51	(14)	37
Specialised lending	65	–	65
Total corporate including SME and specialised lending	347	(19)	328
Sovereign	–	–	–
Bank	–	–	–
Residential mortgage (excluding SME retail secured by residential mortgages)	135	(5)	130
Qualifying revolving retail	396	(86)	310
Other retail	418	(85)	333
Total AIRB and specialised lending portfolios	1,296	(195)	1,101

Credit Risk (continued)

APS 330 Table 9f (i) – Historical loss analysis by portfolio type

Portfolio Type	30 June 2020	
	Full year actual loss	Regulatory one year expected loss estimate
	\$M	\$M
Corporate	134	972
SME corporate	112	672
SME retail (including SME retail secured by residential mortgages)	58	208
Specialised lending	9	798
Total corporate including SME and specialised lending	313	2,650
Sovereign	–	2
Bank	–	7
Residential mortgage (excluding SME retail secured by residential mortgages)	116	1,395
Qualifying revolving retail	225	376
Other retail	291	480
Total AIRB and specialised lending portfolios	945	4,910

Portfolio Type	31 December 2019	
	Half year actual loss	Regulatory one year expected loss estimate
	\$M	\$M
Corporate	22	669
SME corporate	54	679
SME retail (including SME retail secured by residential mortgages)	31	158
Specialised lending	7	766
Total corporate including SME and specialised lending	114	2,272
Sovereign	–	2
Bank	–	9
Residential mortgage (excluding SME retail secured by residential mortgages)	54	1,283
Qualifying revolving retail	125	393
Other retail	143	481
Total AIRB and specialised lending portfolios	436	4,440

Portfolio Type	30 June 2019	
	Full year actual loss	Regulatory one year expected loss estimate
	\$M	\$M
Corporate	150	706
SME corporate	76	673
SME retail (including SME retail secured by residential mortgages)	37	155
Specialised lending	65	772
Total corporate including SME and specialised lending	328	2,306
Sovereign	–	4
Bank	–	136
Residential mortgage (excluding SME retail secured by residential mortgages)	130	1,312
Qualifying revolving retail	310	445
Other retail	333	503
Total AIRB and specialised lending portfolios	1,101	4,706

Actual losses may differ from modelled regulatory EL for a number of reasons.

Actual losses (whether from standardised or AIRB portfolios) are historical and are based on the quality of impaired assets in prior periods, full or partial write-offs, and more recent economic conditions. Actual losses are expected to be below the regulatory EL estimate in most years.

Regulatory EL measures economic loss at a point in time and includes costs (such as internal costs) not included in actual losses. Regulatory EL is calculated on non-defaulted and defaulted AIRB exposures using long-run PDs and downturn LGDs for non-defaulted exposures, and the Best Estimate of Expected Loss (BEEL) for defaulted exposures.

Credit Risk (continued)

Accuracy of Risk Estimates

The following tables compare credit risk estimates used in calculating regulatory capital to realised outcomes.

Probability of Default

APS 330 Table 9f (ii) compares estimates of long-run PD to actual default rates averaged over 12 financial years to 30 June 2020.

Average estimated PD is based on the average of long-run PD's for obligors that are not in default at the beginning of each financial year in the observation period. Actual PD is based on the number of defaulted obligors during the year compared to the non-defaulted obligors measured at the beginning of each financial year.

APS 330 Table 9f (ii) – Accuracy of risk estimates – PD

Portfolio Type	As at 30 June 2020	
	Average estimated PD	Average actual PD
	%	%
Corporate	1.27	0.89
SME corporate	2.25	2.00
SME retail (including SME retail secured by residential mortgages) ¹	1.82	1.55
Specialised lending ²	n/a	1.56
Sovereign ³	0.60	0.02
Bank ³	0.28	0.22
Residential mortgage (excluding SME retail secured by residential mortgages)	0.86	0.74
Qualifying revolving retail	1.91	1.97
Other retail	5.04	4.79

1 The average actual PD represents a 6 year observation period for part of the portfolio.

2 Average estimated PD not relevant for specialised lending under the Supervisory Slotting approach.

3 Actual PDs based on a low volume of defaults observed.

Loss Given Default and Exposure at Default

LGDs for non-retail portfolios are based on accounts that defaulted in 2009 to 2018 financial years. LGDs for retail portfolios are based on accounts that defaulted in 2009 to 2019 financial years. Defaults occurring in the most recent years have been excluded from the analysis, to allow sufficient time for workout of impaired assets, booking of losses and more meaningful disclosures.

The EAD ratio compares estimates of EAD prior to default to realised EAD for obligors that defaulted.

APS 330 Table 9f (iii) – Accuracy of risk estimates – LGD and EAD

Portfolio Type	As at 30 June 2020		
	Average estimated downturn LGD	Average actual LGD	Ratio of estimated EAD to actual EAD
	%	%	
Corporate	54.8	39.7	1.2
SME corporate	31.7	21.1	1.1
SME retail (including SME retail secured by residential mortgages)	31.9	21.8	1.1
Specialised lending ¹	n/a	29.6	1.2
Sovereign ²	61.3	1.3	1.8
Bank ²	65.4	109.9	1.8
Residential mortgage (excluding SME retail secured by residential mortgages) ³	20.6	5.5	1.0
Qualifying revolving retail	87.2	70.1	1.1
Other retail	97.5	76.7	1.0

1 Average estimated LGD is not relevant for specialised lending under Supervisory Slotting approach.

2 Actual LGDs based on a low volume of defaults observed.

3 Estimated downturn LGD based on minimum regulatory floor requirements imposed by APRA and RBNZ.

Credit Risk (continued)

8.6 Credit Risk Mitigation

Collateral

The Group has policies and procedures in place, setting out the acceptable collateral for mitigating credit risk. These include valuation parameters, review frequency and independence of valuation. The Chief Credit Officer (or delegate) is responsible for approving acceptable collateral types.

The collateral type, value, liquidity, realisation costs, security lending margin and loss experience are key determinants of the LGD percentage that is assigned to a credit risk exposure. Collateral held for any credit facility is valued, recorded and controlled in the manner explained below.

Real Estate Collateral

Real estate collateral values can only be used for reducing LGD estimates where the following criteria are met:

- Objective market value of collateral - the collateral must be valued by an independent valuer (or via a valuation approach approved by the BU Chief Risk Officer or delegate), at no more than the current fair value under which the property could be sold via a private contract, between a willing seller and an arm's length buyer, on the date of valuation;
- Revaluation - the Group monitors the value of collateral and updates the value, when appropriate, so that the value is current;
- Insurance - steps are taken to ensure that property taken as collateral is adequately insured against damage or destruction at origination, with documentation requiring the customer to maintain adequate insurance over the life of the credit exposure;
- Prior claim - other parties may have senior claims to the Group on an asset offered for collateral. For example, council rates and land tax usually benefit from specific legal protection. The impact of such claims needs to be considered when assessing collateral values; and
- Environment - the risk of environmental liability arising in respect of the collateral must be appropriately assessed, monitored and where appropriate, reflected in the valuation of collateral.

Home loans are generally secured by mortgages over borrowers' residential properties. In limited circumstances, collateral in the form of cash or commercial property may be provided in addition to residential property. With the exception of some relatively small portfolios, for loans with a LVR of higher than 80% either a Low Deposit Premium or margin is levied, or Lender's Mortgage Insurance (LMI) is taken out to protect the Group by covering the difference between the principal amount plus interest owing and the net amount received from selling the collateral upon default.

Non-Real Estate Collateral

Non-real estate collateral values are only used for reducing LGD estimates where there is a sound process for determining the value of the collateral. Monitoring processes appropriate for the exposure and the collateral type are required to be in place. The main non-real estate collateral types include:

- Cash (usually in the form of a charge over a term deposit) and other liquid assets (e.g. bonds, shares, investment funds);
- Fixed or floating charges over a company's assets, including stock, debtors and work in progress; and
- A charge over assets being financed (e.g. vehicles, equipment).

Where financial collateral is highly correlated with the counterparty exposure that it is used to secure (wrong-way risk), policy specifies that no risk reduction can be taken for the collateral held.

Other Credit Risk Mitigation (including Credit Default Swaps and Guarantees)

The Group mitigates its credit exposure by entering into master netting arrangements with counterparties with which it undertakes a significant volume of transactions. Counterparty credit risk is reduced by a master netting arrangement to the extent that if an event of default occurs, all amounts with the counterparty are terminated and settled on a net basis.

The Group mitigates its counterparty credit risk exposure from dealing in Global Markets type products through the use of Credit Support Annexes (CSAs) and clearing of eligible trades with Central Counterparties (CCPs). CSAs require the counterparty (or the Group) to post collateral when mark-to-market positions exceed agreed threshold and minimum transfer amounts.

Other forms of credit risk mitigation used to either reduce or transfer credit risk include purchasing credit derivatives (e.g. credit default swaps) and/or guarantees from highly rated banks or corporates. To be an eligible mitigant, the credit derivative or guarantee must be contractually binding, have legal certainty and be non-cancellable. APS 330 Table 10b and 10c (page 52) discloses the Group's coverage of exposure by credit default swaps and guarantees.

Portfolio Management

The Group applies a Board approved Large Credit Exposure Policy (LCEP). This policy governs the authority of management with regard to the amount of credit provided to any single counterparty, or group of related counterparties (as determined by applying Aggregation Policy) within the risk-rated segment.

The objective of the LCEP is to limit the risk of catastrophic loss to the Group through over-exposure to the failure of a single obligor, or group of related counterparties. The LCEP is reviewed annually.

Usage of LCEP limits is determined at both individual counterparty and group of related counterparty levels. Limits are tiered by counterparty type, PD rating, security cover and facility maturity.

Management reports to the Group Financial Risk Committee and the Board Risk and Compliance Committee each quarter, on a total credit risk exposure basis:

- All exposures at, or greater than, the LCEP limits, including those resulting from term extension, PD or security cover deterioration; and
- All exposures ceasing to exceed LCEP limits since the last report.

All relevant borrower specific credit submissions prominently display relative compliance with the LCEP.

Credit risk concentration limits are in place to ensure portfolio diversification and prevent over concentration to industries or countries. Geographic dispersion monitoring within Australia and New Zealand is also conducted for some larger sub-portfolios. Periodic stress tests of major credit risk concentrations are conducted to identify potential changes in market conditions such as changes in interest rates, droughts, etc. that could adversely impact the credit portfolio's performance. Action is taken where necessary to reduce the volatility of losses.

Credit Risk (continued)

APS 330 Table 10b and 10c – Credit risk mitigation

	30 June 2020				
	Total exposure ¹	Eligible financial collateral	Exposures covered by guarantees	Exposures covered by credit derivatives	Coverage
	\$M	\$M	\$M	\$M	%
Advanced approach²					
Corporate	122,967	–	89	–	0.1
SME corporate	51,856	–	–	–	–
SME retail ³	17,122	–	–	–	–
Sovereign	108,124	–	–	–	–
Bank	24,174	–	281	33	1.3
Residential mortgage	599,513	–	–	–	–
Qualifying revolving retail	25,309	–	–	–	–
Other retail	9,855	–	–	–	–
Total advanced approach	958,920	–	370	33	0.0
Specialised lending	66,433	–	–	–	–
Standardised approach					
Corporate	957	–	–	–	–
SME corporate	741	–	–	–	–
SME retail	2,920	–	–	–	–
Sovereign	565	–	–	–	–
Bank	324	–	–	–	–
Residential mortgage	15,102	–	–	–	–
Other retail	1,120	–	–	–	–
Other assets	17,799	–	–	–	–
Central clearing counterparties	10,483	–	–	236	2.3
Total standardised approach	50,011	–	–	236	0.5
Total exposures	1,075,364	–	370	269	0.1

1 Credit derivatives that are treated as part of synthetic securitisation structures are excluded from credit risk mitigation disclosures and included within those relating to securitisation.

2 Advanced approach: Exposure for derivatives and guarantees is after netting and financial collateral.

3 Including SME retail secured by residential property.

Credit Risk (continued)

APS 330 Table 10b and 10c – Credit risk mitigation (continued)

	31 December 2019				
	Total exposure ¹	Eligible financial collateral	Exposures covered by guarantees	Exposures covered by credit derivatives	Coverage
	\$M	\$M	\$M	\$M	%
Advanced approach²					
Corporate	121,557	–	45	–	–
SME corporate	51,824	–	–	–	–
SME retail ³	16,211	–	–	–	–
Sovereign	90,708	–	–	–	–
Bank	26,809	–	341	32	1.4
Residential mortgage	591,018	–	–	–	–
Qualifying revolving retail	26,679	–	–	–	–
Other retail	10,682	–	–	–	–
Total advanced approach	935,488	–	386	32	–
Specialised lending	64,230	–	–	–	–
Standardised approach					
Corporate	1,309	–	–	–	–
SME corporate	756	–	–	–	–
SME retail	4,582	–	–	–	–
Sovereign	475	–	–	–	–
Bank	319	–	–	–	–
Residential mortgage	14,416	–	–	–	–
Other retail	1,224	–	–	–	–
Other assets	16,678	–	–	–	–
Central clearing counterparties	9,014	–	–	88	1.0
Total standardised approach	48,773	–	–	88	0.2
Total exposures	1,048,491	–	386	120	–

1 Credit derivatives that are treated as part of synthetic securitisation structures are excluded from credit risk mitigation disclosures and included within those relating to securitisation.

2 Advanced approach: Exposure for derivatives and guarantees is after netting and financial collateral.

3 Including SME retail secured by residential property.

Credit Risk (continued)

APS 330 Table 10b and 10c – Credit risk mitigation (continued)

	30 June 2019				
	Total exposure ¹	Eligible financial collateral	Exposures covered by guarantees	Exposures covered by credit derivatives	Coverage
	\$M	\$M	\$M	\$M	%
Advanced approach²					
Corporate	118,844	–	77	4	0.1
SME corporate	52,068	–	–	–	–
SME retail ³	16,644	–	–	–	–
Sovereign	89,905	–	–	–	–
Bank	33,640	–	216	57	0.8
Residential mortgage	577,736	–	–	–	–
Qualifying revolving retail	27,371	–	–	–	–
Other retail	11,171	–	–	–	–
Total advanced approach	927,379	–	293	61	–
Specialised lending	61,266	–	–	–	–
Standardised approach					
Corporate	1,590	–	–	–	–
SME corporate	822	15	–	–	1.8
SME retail	4,628	–	–	–	–
Sovereign	495	–	–	–	–
Bank	315	–	–	–	–
Residential mortgage	14,933	–	–	–	–
Other retail	1,249	–	–	–	–
Other assets	14,533	–	–	–	–
Central clearing counterparties	7,989	–	–	86	1.1
Total standardised approach	46,554	15	–	86	0.2
Total exposures	1,035,199	15	293	147	–

1 Credit derivatives that are treated as part of synthetic securitisation structures are excluded from credit risk mitigation disclosures and included within those relating to securitisation.

2 Advanced approach: Exposure for derivatives and guarantees is after netting and financial collateral.

3 Including SME retail secured by residential property.

Credit Risk (continued)

8.7 Counterparty Credit Risk

Counterparty Credit Risk (CCR) is the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. An economic loss would occur if the transactions or a portfolio of transactions with the counterparty has a positive economic value for the Group at the time of default. Unlike an exposure to credit risk through a loan, where the exposure to credit risk is unilateral and only the lending bank faces the risk of loss, CCR creates a bilateral risk of loss whereby the market value for many different types of transactions can be positive or negative to either counterparty. The market value is uncertain and can vary over time with the movement of underlying market factors.

Capital is allocated to CCR exposures after taking into account the risk-rating and expected exposure to the counterparty, and correlations and diversification impacts across risk types.

CCR is controlled through a variety of credit policies and procedures including, but not limited, to the following:

- Large Credit Exposure Policy;
- Country Risk Exposure Policy;
- Aggregation Policy;
- Netting Policy;
- Collateralisation of Derivative Transactions Policy;
- Wrong-way risk policy; and
- Specific product policies.

Wrong-way risk is a risk associated with CCR. There are two types of wrong-way risk, general and specific. General wrong-way risk arises when the PD of counterparties is positively correlated with general market risk factors. Specific wrong-way risk arises when the exposure to a particular counterparty and the PD of the counterparty providing credit risk mitigation for the exposure are highly correlated.

Specific wrong-way risk is controlled through not recognising any risk reduction from credit risk mitigation provided by highly correlated counterparties. General wrong-way risk is monitored through the Group's stress testing activities and is controlled via the Group's policies that manage industry, country and individual counterparty concentrations.

CSAs are used with some large corporates and most bank and non-bank financial institution counterparties to collateralise CCR for Global Markets products. The use of CSAs is governed by the Collateralisation of Derivative Transactions Policy and Netting Policies. CSAs lower the wrong-way risk that arises from market movements by requiring the counterparty (or the Group) to post collateral to cover mark-to-market values that might be owed upon a counterparty default.

Aggregate threshold and minimum transfer amounts are the amounts by which the counterparty (or the Bank) can be out of the money before they may be obliged to post collateral. In approximately 8% of ISDA Master Agreements and CSAs these amounts vary depending on the counterparty's long term debt rating. In the remaining agreements the amounts are fixed. Generally, a counterparty's rating is considered in determining its threshold and minimum transfer amount. A trend to lower thresholds has been observed since the Global Financial Crisis. This trend will continue in line with regulatory change.

Risk Managers provide sign-off on terms of the CSA prior to the documentation being executed. Upon execution of a CSA with a counterparty, all relevant threshold levels are input into the collateral management system.

Collateral stress testing is used to determine the effect that a rating downgrade would have on the Group's collateral obligation to its counterparties.

As at 30 June 2020, the maximum additional collateral that could be posted to other counterparties based on the Group's current rating is \$258.7 million. As at 30 June 2020, a unilateral one-notch and two-notch downgrade in the Group's rating would have resulted in a further \$42.4 million and \$150.4 million of collateral being posted to other counterparties respectively. Collateral stress tests are also conducted on the Group's counterparties so that it can monitor for likely collateral stresses in the event of a counterparty downgrade.

APS 330 Table 11b (i) Counterparty credit risk derivative exposure under the SA-CCR method ¹

	30 Jun 20	31 Dec 19
	\$M	\$M
Gross positive fair value	29,759	24,422
Netting and collateral benefits	(21,503)	(18,348)
Including collateral held of which:		
Cash	(3,122)	(3,395)
Replacement cost	8,256	6,074
Potential future exposure	9,008	9,421
Impact of scaling factor of 1.4 and incurred CVA	6,742	6,111
Exposure at Default	24,006	21,606

¹ Excluding exposures to CCP's.

Credit Risk (continued)

APS 330 Table 11b (i) Counterparty credit risk derivative exposure under the current exposure method ¹

	30 Jun 19 \$M
Gross positive fair value	24,732
Netting benefits	(14,012)
Netted current credit exposure	10,720
Collateral held, of which:	
Cash	(4,794)
Net derivatives credit exposure	5,926
Potential Future Exposure under the Current Exposure Method	12,439
Exposure at Default	18,365

¹ Excluding exposures to CCP's.

APS 330 Table 11b (ii) Counterparty credit risk derivative exposure ¹

Exposure type	Current Credit Exposure		
	30 Jun 20 \$M	31 Dec 19 \$M	30 Jun 19 \$M
Interest rate contracts	9,714	7,431	8,604
Foreign currency contracts	19,288	16,686	15,761
Equity contracts	–	68	63
Credit derivatives	7	8	11
Commodities and other	750	229	293
Total	29,759	24,422	24,732

¹ Excluding exposures to CCP's.

Credit Risk (continued)

APS 330 Table 11c Counterparty credit risk derivative transactions

Notional value by product type as at 30 June 2020 ^{1, 2}	Own Credit Portfolio		Intermediation Activity	
	Protection buyer	Protection seller	Protection buyer	Protection seller
	\$M	\$M	\$M	\$M
Credit default swaps	2,723	–	17	967
Total return swaps	–	–	–	–
Credit options	–	–	–	–
Other	–	–	–	–
Total	2,723	–	17	967

Notional value by product type as at 31 December 2019 ^{1, 2}	Own Credit Portfolio		Intermediation Activity	
	Protection buyer	Protection seller	Protection buyer	Protection seller
	\$M	\$M	\$M	\$M
Credit default swaps	1,471	–	46	964
Total return swaps	–	–	–	–
Credit options	–	–	–	–
Other	–	–	–	–
Total	1,471	–	46	964

Notional value by product type as at 30 June 2019 ^{1, 2}	Own Credit Portfolio		Intermediation Activity	
	Protection buyer	Protection seller	Protection buyer	Protection seller
	\$M	\$M	\$M	\$M
Credit default swaps	1,491	–	49	1,287
Total return swaps	–	–	–	–
Credit options	–	–	–	–
Other	–	–	–	–
Total	1,491	–	49	1,287

1 Excluding exposures to CCP's.

2 Notional values are presented for credit derivatives with positive fair values and include credit derivative hedges.

Credit Risk (continued)

8.8 Securitisation

Securitisation is defined as a structure where the cash flow from a pool of assets is 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 creditor is entitled to receive payments from the pool before another class of creditors).

Securitisations may be categorised as either:

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

Securitisation Activities

The Group is involved in the following types of business activities that give rise to securitisation exposures:

- Group originated securitisations – where the Group equitably assigns home loans it has originated to a SPV, which in turn raises wholesale funding by the issuance of notes to external investors. The Medallion Programme is the Group's securitisation programme of CBA and ASB originated residential mortgage loans. CBA has also established an internal securitisation where CBA retains all the notes issued to use as collateral to raise contingent liquidity from the RBA;
- Third party securitisations – where assets are originated by parties other than the Group. Such transactions usually have added layers of credit protection, whether it is lender's mortgage insurance, over-collateralisation, cash reserves and/or other subordinated credit support. The nature of the underlying assets is similar to those that the Group would normally support in a non-securitised form including residential and commercial mortgages, personal loans, revolving credit exposures, and vehicle loans and equipment financing. The Group acts as a funder/note holder;
- The purchase of asset/mortgage backed securities for trading or portfolio investment; and
- The provision of interest rate swaps, cross-currency swaps and/or liquidity support facilities to an external SPV where the Group may be the arranger, lead manager and/or originator of the respective securities or underlying assets.

For contingent liquidity, the Group manages a \$136 billion Residential Mortgage Backed Security (RMBS) portfolio which is not intended to be issued publicly. These notes will be held by the Group and the senior notes, if required, can be used for repurchase agreements with the RBA and RBNZ to generate additional liquidity for the Group. These RMBS are eligible collateral for repurchase agreements with the RBA and RBNZ.

Strategic Issues

For the Group, securitisation has provided and will continue to provide a source of liquidity through RBA repurchase transactions and an opportunistic rather than core external funding source. The Group, when undertaking an intermediary role for third party securitisations, receives fee based income and collateral business in other banking products.

Regulatory Compliance

APRA's requirements in managing the capital and risks associated with securitisation activities and exposures are set out in APS 120 and Prudential Practice Guide APG 120 "Securitisation". To be compliant with the standard the Group has policies and procedures that include:

- Appropriate risk management systems to identify, measure, monitor and manage the risks arising from the Group's involvement in securitisation;
- Monitoring the effects of securitisation on its risk profile, including credit quality, and how it has aligned with its risk management practices; and
- Measures to ensure that it is not providing implicit support for a securitisation.

The Group's securitisation activities also need to comply with other prudential standards applicable to any traded or Balance Sheet exposure.

The Group uses a hierarchy detailed in APS 120 to determine the credit rating grade for regulatory capital purposes. The two approaches the Group uses are the External Ratings-based Approach (ERBA Approach) or the Supervisory Formula Approach (SFA).

Risk Assessment

Securitisation activities expose the Group to risks including liquidity risk, market risk, operational risk and credit risk, which are managed in accordance with the Group's respective risk management frameworks. Where the Group arranges either a Group originated or third party securitisation transaction, the capital markets issuance will be rated by at least one ECAI based on their respective rating models. The Group uses recognised ECAI including S&P Global Ratings, Moody's Investors Service and/or Fitch Ratings for both Group originated and third party securitisation transactions.

The Group undertakes credit assessments on all securitisation transactions. In addition to compliance with the securitisation and other prudential standards, credit risk assessment of securitisation exposures is performed in accordance with the Group's policies and procedures.

The risk assessment takes into account a wide range of credit, reputation, origination, concentration and servicing factors related to the underlying portfolio of assets being securitised in addition to the capital structure of the proposed securitisation SPV.

Where a securitisation exposure is held through a warehouse structure prior to terming out via the debt capital markets, the credit ratings of the warehouse facility are also assessed by the Group using the rating methodologies of the ECAI and/or other models accepted by APRA.

Credit Approval

Credit approval authorities relating to securitisation are restricted to officers with appropriately badged delegations. Risk Management's Institutional Banking and Markets team is responsible for approval and limit management and monitoring for all securitisations. Proposed exposures that exceed individual approval authorities are referred to various credit committees of the Group for decisioning.

Each Group originated or third party transaction is led by a deal team leader who is responsible for the deal origination and its compliance with Group policies and prudential standards.

Credit Risk (continued)

Securitisation Risk Management Framework

Exposure Reporting and Monitoring

All securitisation exposures and limits are recorded on appropriate risk systems and monitored for limit and capital compliance.

Where exposures are fair valued for accounting purposes, the transactions are monitored under the Group's Market Risk Management Framework (refer section 10, page 71). This includes a limit framework and monitoring around the size and turnover of such exposures, and a robust independent price validation process conducted on the prices used to value those exposures. All securitisation limits and exposures are reviewed in accordance with the Group's approved Risk Management Framework which in turn is subject to periodic internal (internal audits and reviews) and external reviews (conducted by external audit and APRA). At a minimum, the following reviews are undertaken:

Externally-rated exposures:

- External ratings are reviewed on a weekly basis via a report that tracks rating changes; and
- The underlying pool and transaction performance is reviewed monthly via an internally produced report and/or reports provided by issuers.

The Group has no exposure to resecuritisation transactions.

Third party unrated client securitisation exposures:

- The Bank receives periodic and detailed pool performance data from the issuer/trust manager. The pool performance data reports are extracted and reviewed for changes in underlying pool quality;
- Dynamic models are run monthly to determine the required credit support; and
- Formal credit reviews are conducted at least annually for all third party client exposures.

Group originated securitisation programme exposures:

- Formal reviews are conducted at least annually for all Medallion exposures; and
- The Bank receives the monthly investor reports and underlying pool data.

Exposure Aggregation

Securitisation SPVs are bankruptcy remote entities. Generally, there is no legally enforceable obligation on the asset originator or issuer to provide ongoing credit support to such transactions and they are mostly not aggregated for either Group Large Credit Exposure Policy or APRA prudential standard compliance. Aggregation is assessed on a case by case basis having regard to the proposed structure. The Group will aggregate, where appropriate, the broader banking exposures to the proposed originator and/or issuing entities in making its determinations.

Group Originated Securitisations

General Principles

Where the Group intends to securitise assets it has originated, it ensures the terms and conditions applicable to the proposed securitisation and any support facilities or dealings are arm's length and market based and compliant with APRA's prudential regulations. These transactions are managed by Group Treasury.

Where the Group has sold assets to an SPV but retains a servicer role in managing those assets on behalf of the SPV the Group ensures those securitised assets are effectively ring-

fenced from the Group's own assets. Where the Group or its subsidiary provides support services such as servicing to the SPV, these need to be subject to arm's length, market based terms and be of an equivalent standard available in the market.

Purchase of Securities issued under Group Originated Securitisation

Any purchases of either securities issued by an SPV or assets of an SPV must be arm's length in nature and approved under the Group's credit approval process. No pre-existing obligation to purchase public securities or the underlying assets of the SPV exists. The Group's SPVs under the Medallion programme are consolidated for accounting purposes. As at 30 June 2020 the Group achieved capital relief for \$5.6 billion of assets in externally issued RMBS with \$6.9 billion not achieving capital relief.

The Group holds less than 20% (excepting permitted underwritings as per APS 120) of the public securities outstanding issued by an SPV for Group originated securitisations.

The aggregated value of all securities held by the Group under its various public Medallion programme does not exceed 10% of the Group's Level 2 capital (excepting permitted security underwritings as per APS 120).

Summary of Accounting Policies

Securitisations may, depending on the individual arrangement, result in: continued recognition of the securitised assets on the Balance Sheet of the Group; continued recognition of the assets to the extent of the Group's continuing involvement in those assets (as defined within AASB 9); or derecognition of the assets and the separate recognition, as assets or liabilities, of any rights and obligations created or retained in the transfer of assets to the securitisation vehicle.

A securitisation transaction is first assessed for any potential requirement to consolidate the vehicles used.

The assessment is made considering the requirements of AASB 10 *Consolidated Financial Statements* (AASB 10). AASB 10 introduces control as the single basis for consolidation for all entities, regardless of the nature of the investee. The Group exercises judgement at inception and periodically, to assess whether a SPV should be consolidated based on the Bank's power over the relevant activities of the entity and the significance of its exposure to variable returns of the structured entity.

For the Group's accounting policy on the derecognition of financial assets and financial liabilities and the measurement of any retained interests, refer to the 2020 Annual Report.

The valuation process of any retained interests in securitisation exposures primarily focuses on quotations from third parties and calibrated valuations from market standard models with key inputs such as spreads to discount rates, default and recovery rates that may be observable or unobservable. This process did not change in 2020.

Assets are valued according to the normal methods appropriate to the asset class. As at 30 June 2020 and 31 December 2019, the Group had no assets awaiting securitisation.

The Group discloses all contractual commitments, such as liquidity lines, and applies the accounting policies as set out in the 2020 Annual Report. The Group provides support for securitisation transactions to the extent of those contractual obligations.

Credit Risk (continued)

APS 330 Table 12g (i) – Banking book exposures securitised – traditional securitisation

Underlying Asset	30 June 2020			
	Group originated assets capital relief ¹	Group originated assets - non capital relief ²	Group originated assets - internal RMBS ³	Third party originated assets ⁴
	\$M	\$M	\$M	\$M
Residential mortgage	5,605	6,909	136,482	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	5,605	6,909	136,482	–

Underlying Asset	31 December 2019			
	Group originated assets capital relief ¹	Group originated assets - non capital relief ²	Group originated assets - internal RMBS ³	Third party originated assets ⁴
	\$M	\$M	\$M	\$M
Residential mortgage	6,103	7,685	60,612	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	6,103	7,685	60,612	–

Underlying Asset	30 June 2019			
	Group originated assets capital relief ¹	Group originated assets - non capital relief ²	Group originated assets - internal RMBS ³	Third party originated assets ⁴
	\$M	\$M	\$M	\$M
Residential mortgage	5,074	8,563	60,939	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	5,074	8,563	60,939	–

1 Group originated assets (capital relief) comprise CBA Medallion Trust, and prior to January 2020 Bankwest Swan Trust, subject to capital treatment under APS 120.

2 Group originated assets (non-capital relief) comprise CBA Medallion Trust, and prior to January 2020 Bankwest Swan Trust, subject to capital treatment under APS 113.

3 Group originated assets (internal RMBS) comprise CBA Medallion and ASB Medallion Trusts, and prior to January 2020 Bankwest Swan Trust, held for contingent liquidity purposes.

4 Third party originated assets comprise assets managed and sponsored by the Group.

APS 330 Table 12g (ii) – Banking book exposures securitised – synthetic securitisation

APS 120 provides specific regulatory treatment for synthetic securitisations where credit risk is transferred to a third party, however, legal ownership of the underlying assets remains with the originator.

The Group has not undertaken any synthetic securitisation in the banking book.

APS 330 Table 12g (iii) – Total banking book exposures securitised

APS 330 Table 12g (i) discloses the total banking book exposures securitised by the Group.

Credit Risk (continued)

APS 330 Table 12h – Past due and impaired banking book exposures by asset type

Underlying Asset	30 June 2020			
	Group originated assets securitised			
	Outstanding exposure	Impaired	Past due	Losses recognised
	\$M	\$M	\$M	\$M
Residential mortgage	148,996	19	298	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	148,996	19	298	–

Underlying Asset	31 December 2019			
	Group originated assets securitised			
	Outstanding exposure	Impaired	Past due	Losses recognised
	\$M	\$M	\$M	\$M
Residential mortgage	74,400	16	309	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	74,400	16	309	–

Underlying Asset	30 June 2019			
	Group originated assets securitised			
	Outstanding exposure	Impaired	Past due	Losses recognised
	\$M	\$M	\$M	\$M
Residential mortgage	74,575	11	328	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	74,575	11	328	–

APS 330 Table 12i – Banking book exposures intended to be securitised

The Group does not have any outstanding banking book exposures that are intended to be securitised at 30 June 2020.

Credit Risk (continued)

APS 330 Table 12j (i) – Banking book activity for the reporting period

The Group's new securitisation activity in the banking book during the full year ended 30 June 2020, was \$5,387 million.

Underlying Asset	Full year ended 30 June 2020	
	Total exposures securitised \$M	Recognised gain or loss on sale \$M
Residential mortgages	4,681	–
Credit cards and other personal loans	–	–
Auto and equipment finance	657	–
Commercial loans	49	–
Other	–	–
Total	5,387	–

Underlying Asset	Half year ended 31 December 2019	
	Total exposures securitised \$M	Recognised gain or loss on sale \$M
Residential mortgages	4,396	–
Credit cards and other personal loans	–	–
Auto and equipment finance	–	–
Commercial loans	10	–
Other	–	–
Total	4,406	–

Underlying Asset	Full year ended 30 June 2019	
	Total exposures securitised \$M	Recognised gain or loss on sale \$M
Residential mortgages	4,147	-
Credit cards and other personal loans	16	-
Auto and equipment finance	150	-
Commercial loans	9	-
Other	-	-
Total	4,322	-

Credit Risk (continued)

APS 330 Table 12k – Banking book securitisation exposures retained or purchased

Securitisation Facility Type	30 June 2020		
	On Balance Sheet	Off Balance Sheet	Total exposures
	\$M	\$M	\$M
Liquidity support facilities	–	258	258
Warehouse facilities	6,840	2,846	9,686
Derivative facilities	367	172	539
Holdings of securities	6,039	–	6,039
Other	–	10	10
Total securitisation exposures in the banking book	13,246	3,286	16,532

Securitisation Facility Type	31 December 2019		
	On Balance Sheet	Off Balance Sheet	Total exposures
	\$M	\$M	\$M
Liquidity support facilities	–	257	257
Warehouse facilities	5,042	4,082	9,124
Derivative facilities	401	192	593
Holdings of securities	6,989	–	6,989
Other	–	10	10
Total securitisation exposures in the banking book	12,432	4,541	16,973

Securitisation Facility Type	30 June 2019		
	On Balance Sheet	Off Balance Sheet	Total exposures
	\$M	\$M	\$M
Liquidity support facilities	–	254	254
Warehouse facilities	3,579	3,283	6,862
Derivative facilities	156	11	167
Holdings of securities	8,095	–	8,095
Other	–	5	5
Total securitisation exposures in the banking book	11,830	3,553	15,383

Credit Risk (continued)

APS 330 Table 12I (i) – Banking book exposure by risk weighting

Total securitisation exposures in the banking book increased by \$1,149 million or 7.5% during the full year ended 30 June 2020. The corresponding RWA increased by \$97 million or 3.3%, mainly due to the downward revision of investment and warehouse risk weights.

Risk Weight Band	30 June 2020						
	Exposures		Total exposures	Risk Weighted Assets		Total RWA	
	Securitisation	Resecuritisation		Securitisation	Resecuritisation		
	\$M	\$M	\$M	\$M	\$M	\$M	
≤ 25%	15,963	–	15,963	2,828	–	2,828	
> 25% ≤ 35%	470	–	470	126	–	126	
> 35% ≤ 50%	68	–	68	28	–	28	
> 50% ≤ 75%	28	–	28	15	–	15	
> 75% ≤ 100%	–	–	–	–	–	–	
> 100% ≤ 650%	–	–	–	–	–	–	
> 650% ≤ 1250%	–	–	–	–	–	–	
Total	16,529	–	16,529	2,997	–	2,997	

Risk Weight Band	31 December 2019						
	Exposures		Total exposures	Risk Weighted Assets		Total RWA	
	Securitisation	Resecuritisation		Securitisation	Resecuritisation		
	\$M	\$M	\$M	\$M	\$M	\$M	
≤ 25%	16,736	–	16,736	3,054	–	3,054	
> 25% ≤ 35%	–	–	–	–	–	–	
> 35% ≤ 50%	150	–	150	64	–	64	
> 50% ≤ 75%	84	–	84	59	–	59	
> 75% ≤ 100%	–	–	–	–	–	–	
> 100% ≤ 650%	–	–	–	–	–	–	
> 650% ≤ 1250%	–	–	–	–	–	–	
Total	16,970	–	16,970	3,177	–	3,177	

Risk Weight Band	30 June 2019						
	Exposures		Total exposures	Risk Weighted Assets		Total RWA	
	Securitisation	Resecuritisation		Securitisation	Resecuritisation		
	\$M	\$M	\$M	\$M	\$M	\$M	
≤ 25%	14,825	–	14,825	2,710	–	2,710	
> 25% ≤ 35%	470	–	470	130	–	130	
> 35% ≤ 50%	–	–	–	–	–	–	
> 50% ≤ 75%	85	–	85	60	–	60	
> 75% ≤ 100%	–	–	–	–	–	–	
> 100% ≤ 650%	–	–	–	–	–	–	
> 650% ≤ 1250%	–	–	–	–	–	–	
Total	15,380	–	15,380	2,900	–	2,900	

Credit Risk (continued)

APS 330 Table 12l (ii) – Banking book exposure deducted entirely from capital

Total movement of securitisation exposures deducted from Tier 1 capital was nil during the half year ended 31 December 2019 and there is nil movement during the half year ended 30 June 2020.

Underlying Asset	Common Equity Tier 1 Capital		
	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Residential mortgage	3	3	3
Credit cards and other personal loans	–	–	–
Auto and equipment finance	–	–	–
Commercial loans	–	–	–
Other	–	–	–
Total	3	3	3

APS 330 Table 12m – Banking book exposures subject to early amortisation

The Group has not undertaken any securitisation subject to early amortisation treatment.

APS 330 Table 12n – Banking book resecuritisation exposures

As at 30 June 2020, banking book resecuritisation exposures without credit risk mitigation was nil (31 December 2019: nil, 30 June 2019: nil).

The Group did not have any resecuritisation exposures subject to credit risk mitigation.

The Group did not have any exposure to third party guarantors providing guarantees for securitised assets.

APS 330 Table 12o (i) – Trading book exposures securitised – traditional securitisation

The Group has no traditional securitisation exposures in the trading book.

APS 330 Table 12o (ii) – Trading book exposures securitised – synthetic securitisation

The Group has not undertaken any synthetic securitisation in the trading book.

APS 330 Table 12o (iii) – Total trading book exposures securitised

The Group has not securitised any exposures in the trading book.

APS 330 Table 12p – Trading book exposures intended to be securitised

The Group does not have any outstanding trading book exposures that are intended to be securitised at 30 June 2020.

APS 330 Table 12q – Trading book activity for the reporting period

The Group participated in third party securitisation in the trading book during the full year ended 30 June 2020, relating to \$28 million residential mortgages (31 December 2019: \$28 million, 30 June 2019: nil), \$7 million auto and equipment finance (31 December 2019: \$7 million, 30 June 2019: nil), and \$22 million personal finance (31 December 2019: \$2 million, 30 June 2019: \$2 million) exposures.

APS 330 Table 12r – Trading book exposures subject to APS 116

The aggregate amount of exposures securitised by the Group and subject to APS 116 was \$93 million as at 30 June 2020 (31 December 2019: \$69 million, 30 June 2019: \$27 million), all of which are traditional securitisations. This consists of:

- Securities held in the trading book subject to the Standard Method of \$11 million (31 December 2019: \$2 million, 30 June 2019: nil); and
- Derivatives held in the trading book subject to the Internal Models Approach (IMA) of \$82 million (31 December 2019: \$67 million, 30 June 2019: \$27 million).

Credit Risk (continued)

APS 330 Table 12s – Trading book exposures retained or purchased subject to APS 120

Securitisation Facility Type	30 June 2020		
	On Balance Sheet	Off Balance Sheet	Total exposures
	\$M	\$M	\$M
Liquidity support facilities	–	–	–
Warehouse facilities	–	–	–
Derivative facilities	38	44	82
Holdings of securities	11	–	11
Other	–	–	–
Total securitisation exposures in the trading book	49	44	93

Securitisation Facility Type	31 December 2019		
	On Balance Sheet	Off Balance Sheet	Total exposures
	\$M	\$M	\$M
Liquidity support facilities	–	–	–
Warehouse facilities	–	–	–
Derivative facilities	26	41	67
Holdings of securities	2	–	2
Other	–	–	–
Total securitisation exposures in the trading book	28	41	69

Securitisation Facility Type	30 June 2019		
	On Balance Sheet	Off Balance Sheet	Total exposures
	\$M	\$M	\$M
Liquidity support facilities	–	–	–
Warehouse facilities	–	–	–
Derivative facilities	19	8	27
Holdings of securities	–	–	–
Other	–	–	–
Total securitisation exposures in the trading book	19	8	27

APS 330 Table 12t (i) – Trading book exposures retained/purchased subject to IMA

The Group has \$82 million of derivatives exposures held in the trading book subject to IMA (default risk) under APS 116 as at 30 June 2020 (31 December 2019: \$67 million, 30 June 2019: \$27 million).

Credit Risk (continued)

APS 330 Table 12t (ii) – Trading book exposures subject to APS 120 by risk weighting

Risk Weight Band	30 June 2020		
	ERBA Approach	SFA Approach	Total exposures
	\$M	\$M	\$M
≤ 25%	63	21	84
> 25% ≤ 35%	–	9	9
> 35% ≤ 50%	–	–	–
> 50% ≤ 75%	–	–	–
> 75% ≤ 100%	–	–	–
> 100% ≤ 650%	–	–	–
> 650% ≤ 1250%	–	–	–
Total	63	30	93

Risk Weight Band	31 December 2019		
	ERBA Approach	SFA Approach	Total exposures
	\$M	\$M	\$M
≤ 25%	50	18	68
> 25% ≤ 35%	–	–	–
> 35% ≤ 50%	–	1	1
> 50% ≤ 75%	–	–	–
> 75% ≤ 100%	–	–	–
> 100% ≤ 650%	–	–	–
> 650% ≤ 1250%	–	–	–
Total	50	19	69

Risk Weight Band	30 June 2019		
	ERBA Approach	SFA Approach	Total exposures
	\$M	\$M	\$M
≤ 25%	11	10	21
> 25% ≤ 35%	–	6	6
> 35% ≤ 50%	–	–	–
> 50% ≤ 75%	–	–	–
> 75% ≤ 100%	–	–	–
> 100% ≤ 650%	–	–	–
> 650% ≤ 1250%	–	–	–
Total	11	16	27

APS 330 Table 12u (i) – RWA of trading book exposures retained/purchased subject to IMA

The Group has \$166 million of RWA held in the trading book subject to IMA (default risk) under APS 116 as at 30 June 2020 (31 December 2019: \$205 million, 30 June 2019: \$201 million).

Credit Risk (continued)

APS 330 Table 12u (ii) – Capital requirements (RWA) of trading book exposures subject to APS 120 by risk weighting

30 June 2020									
Risk Weight Band	ERBA Approach		SFA Approach		Standardised Approach		Total Capital Requirements		
	Securitisation \$M	Resecuritisation \$M	Securitisation \$M	Resecuritisation \$M	Securitisation \$M	Resecuritisation \$M	Securitisation \$M	Resecuritisation \$M	
≤ 25%	13	–	3	–	–	–	16	–	
> 25% ≤ 35%	–	–	2	–	–	–	2	–	
> 35% ≤ 50%	–	–	–	–	–	–	–	–	
> 50% ≤ 75%	–	–	–	–	–	–	–	–	
> 75% ≤ 100%	–	–	–	–	–	–	–	–	
> 100% ≤ 650%	–	–	–	–	–	–	–	–	
> 650% ≤ 1250%	–	–	–	–	–	–	–	–	
Total	13	–	5	–	–	–	18	–	

31 December 2019									
Risk Weight Band	ERBA Approach		SFA Approach		Standardised Approach		Total Capital Requirements		
	Securitisation \$M	Resecuritisation \$M	Securitisation \$M	Resecuritisation \$M	Securitisation \$M	Resecuritisation \$M	Securitisation \$M	Resecuritisation \$M	
≤ 25%	10	–	3	–	–	–	13	–	
> 25% ≤ 35%	–	–	–	–	–	–	–	–	
> 35% ≤ 50%	–	–	1	–	–	–	1	–	
> 50% ≤ 75%	–	–	–	–	–	–	–	–	
> 75% ≤ 100%	–	–	–	–	–	–	–	–	
> 100% ≤ 650%	–	–	–	–	–	–	–	–	
> 650% ≤ 1250%	–	–	–	–	–	–	–	–	
Total	10	–	4	–	–	–	14	–	

30 June 2019									
Risk Weight Band	ERBA Approach		SFA Approach		Standardised Approach		Total Capital Requirements		
	Securitisation \$M	Resecuritisation \$M	Securitisation \$M	Resecuritisation \$M	Securitisation \$M	Resecuritisation \$M	Securitisation \$M	Resecuritisation \$M	
≤ 25%	2	–	1	–	–	–	3	–	
> 25% ≤ 35%	–	–	2	–	–	–	2	–	
> 35% ≤ 50%	–	–	–	–	–	–	–	–	
> 50% ≤ 75%	–	–	–	–	–	–	–	–	
> 75% ≤ 100%	–	–	–	–	–	–	–	–	
> 100% ≤ 650%	–	–	–	–	–	–	–	–	
> 650% ≤ 1250%	–	–	–	–	–	–	–	–	
Total	2	–	3	–	–	–	5	–	

Credit Risk (continued)

APS 330 Table 12u (iii) – Trading book exposures entirely deducted from capital

The Group has no trading book exposures that are deducted entirely from CET1 capital as at 30 June 2020 (31 December 2019: nil; 30 June 2019: nil).

The Group did not have any trading book exposures that are credit enhancements deducted from Total Capital or any other exposures deducted from Total Capital.

APS 330 Table 12v – Trading book exposures subject to early amortisation

The Group has not undertaken any securitisation subject to early amortisation treatment.

APS 330 Table 12w – Trading book resecuritisation exposures

The Group did not have any trading book resecuritisation exposures without credit risk mitigation as at 30 June 2020 (31 December 2019: nil; 30 June 2019: nil).

The Group did not have any resecuritisation exposures subject to credit risk mitigation.

The Group did not have any third party guarantors providing guarantees for securitised assets.

APS 330 Table 5a – Total securitisation activity for the reporting period

The Group disclosed the summary of the current period's securitisation activity including the total amount of exposures securitised and gain or loss recognised on sale by exposure type in APS 330 Table 12j (banking book) and APS 330 Table 12q (trading book).

The total exposures securitised in the full year to 30 June 2020 was \$5,444 million (30 June 2019: \$4,324 million). The total exposures securitised in the half year to 31 December 2019 was \$4,443 million.

APS 330 Table 5b – Summary of total securitisation exposures retained or purchased

Securitisation Facility Type	As at 30 June 2020		
	On Balance Sheet \$M	Off Balance Sheet \$M	Total exposures \$M
Liquidity support facilities	–	258	258
Warehouse facilities	6,840	2,846	9,686
Derivative facilities	405	216	621
Holdings of securities	6,050	–	6,050
Other	–	10	10
Total securitisation exposures	13,295	3,330	16,625

Securitisation Facility Type	As at 31 December 2019		
	On Balance Sheet \$M	Off Balance Sheet \$M	Total exposures \$M
Liquidity support facilities	–	257	257
Warehouse facilities	5,042	4,082	9,124
Derivative facilities	427	233	660
Holdings of securities	6,991	–	6,991
Other	–	10	10
Total securitisation exposures	12,460	4,582	17,042

Securitisation Facility Type	As at 30 June 2019		
	On Balance Sheet \$M	Off Balance Sheet \$M	Total exposures \$M
Liquidity support facilities	–	254	254
Warehouse facilities	3,579	3,283	6,862
Derivative facilities	175	19	194
Holdings of securities	8,095	–	8,095
Other	–	5	5
Total securitisation exposures	11,849	3,561	15,410

Equity Risk

9 Equity Risk

Equity risk is the potential loss arising from price volatility in equity investments.

The Group holds equity investments in the banking book for both capital gain and strategic reasons. Equity investments acquired for strategic reasons require approval from the relevant Finance and Risk Management functions, including governance by the Board Risk and Compliance Committee, and monitoring by an independent Market Risk Management function. The measurement of banking book securities is determined in accordance with the Group's accounting policies. The accounting treatment for equity investment depends on whether the Group has significant influence or joint control over the investee. Where significant influence, or joint control exists, the investment is classified as an associate or joint venture and measured using the equity method. Under the equity method, investments are initially recorded at cost and adjusted for

the Group's share of the post-acquisition profits or losses, and other comprehensive income, less any dividends received. Other investments which are not joint ventures or associates, are recognised at fair value through other comprehensive income or through profit or loss.

When an active market exists, fair value is determined using quoted market prices. When a quoted price in an active market is not available, fair value is determined using acceptable market valuation techniques. Key assumptions applied include trading multiples for businesses displaying similar characteristics to the equity investments being valued.

Under the application of Basel III, APRA requires that all these equity investments be fully deducted from CET1.

APS 330 Table 16b to 16f – Equity investment exposures¹

Equity Investments	30 June 2020	
	Balance	Fair
	Sheet value	value
	\$M	\$M
Value of listed (publicly traded) equities	1,855	1,749
Value of unlisted (privately held) equities	1,763	1,657
Total	3,618	3,406

Equity Investments	31 December 2019	
	Balance	Fair
	Sheet value	value
	\$M	\$M
Value of listed (publicly traded) equities	1,879	1,801
Value of unlisted (privately held) equities	1,699	1,698
Total	3,578	3,499

Equity Investments	30 June 2019	
	Balance	Fair
	Sheet value	value
	\$M	\$M
Value of listed (publicly traded) equities	1,868	1,655
Value of unlisted (privately held) equities	1,199	1,164
Total	3,067	2,819

Gains on Equity Investments	Half year ended		
	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Cumulative realised gains in reporting period	–	–	45
Total unrealised gains	53	38	104

¹ Equity investment exposures including non-traded equity investments as well as investments in associates that are treated as capital deductions and are not risk weighted at Level 2.

Market Risk

10 Market Risk

Market risk is the potential adverse impact on the profitability and/or net worth of the Group from changes in interest rates, foreign exchange rates, equity and commodity prices, credit spreads, and the resale value of assets under residual value guarantees.

The Group makes a distinction between traded and non-traded market risk for the purposes of risk management, measurement and reporting. Traded market risk principally arises from the Group's trading book activities within the Institutional Banking and Markets business and its subsidiary financial institutions.

Non-traded market risk includes interest rate risk that arises from banking book activities, non-traded equity risk, structural foreign exchange risk and lease residual value risk.

Market Risk Management Governance Overview

The Group's appetite for market risk is determined by the Board and is expressed via the Group's Risk Appetite Statement and its framework of limits and policies. The limits are designed to manage the volatility in earnings and value due to market risk. The policies establish a sound operating environment for market risk, which is consistent with the governance and control standards of the Group and conform to prudential regulatory requirements.

The market risk profile of the Group is overseen by the Board Risk and Compliance Committee and senior executive management via the Group Asset and Liability Committee (ALCO). The Portfolio and Market Risk Management unit provides support to the Board Risk and Compliance Committee and ALCO in the performance of their market risk management accountabilities.

Market risk may only be generated by authorised business areas across the Group. The key functional areas that must be established to support market risk activity comprise:

- An approved Trading, Treasury or Origination function;
- An independent Market Risk Oversight area; and
- A Senior Management Oversight Committee.

The chart on page 72 summarises governance arrangements for market risk.

The Market Risk Oversight area supports the implementation of the Board approved policies through the establishment of Market Risk Standards and other documents that define the operational requirements for managing market risk, including details of sub-limits, stress testing, key controls, delegations, reporting and escalation requirements. The Market Risk Oversight area is responsible for the daily monitoring and analysis of risk positions. Senior management has oversight of market risk performance against risk and return expectations on a monthly basis. The Board Risk and Compliance Committee meets approximately eight times each year and considers the operation of the Market Risk Management Framework together with any issues that may arise.

Market Risk Measurement

The Group uses Value-at-Risk (VaR) as one of the measures of traded and non-traded market risk. VaR measures potential loss using historically observed market volatility and correlation between different markets. The VaR measured for traded market risk uses two years of daily movement in market rates. The VaR measure for non-traded banking book market risk uses 6 years of daily movement in market rates.

VaR is modelled at a 99% confidence level over a 10-day holding period for trading book positions and a 99% confidence level over a 20-day holding period is used for Interest Rate Risk in the Banking Book (IRRBB). Non-traded equity risk is modelled at a 97.5% confidence level over a 20-day holding period.

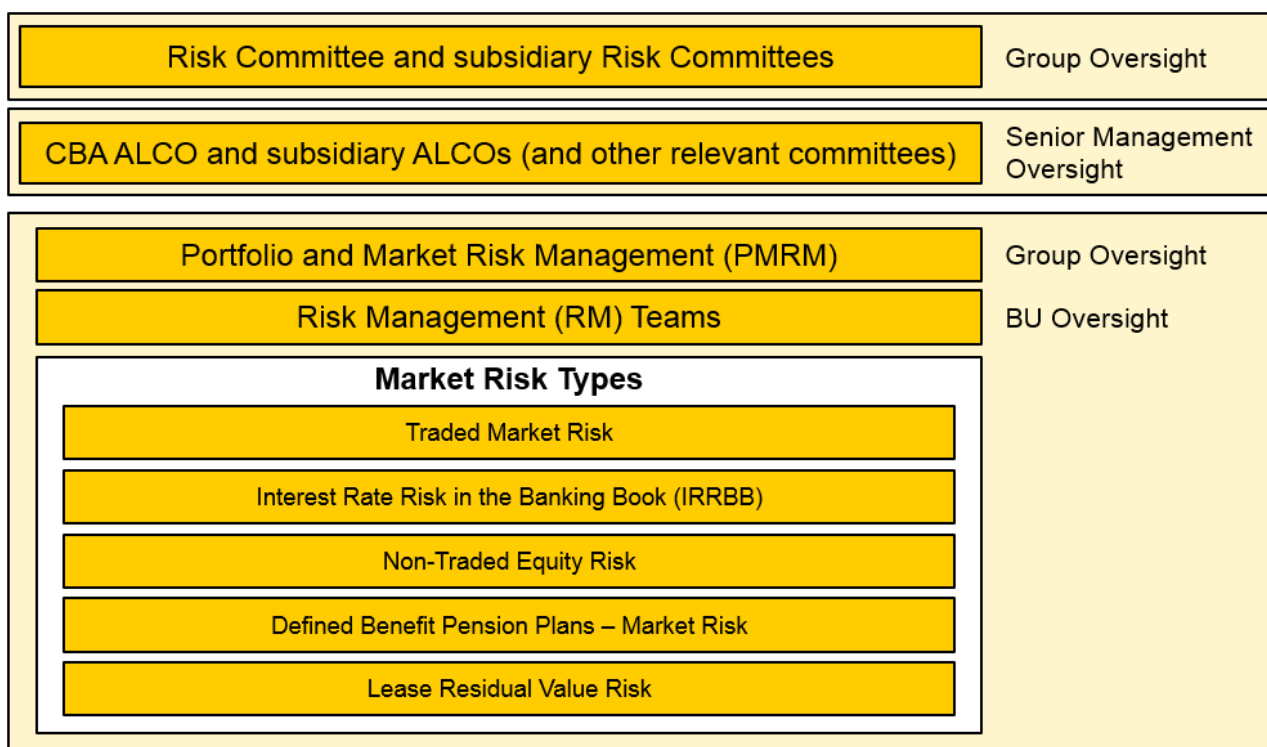
Stressed VaR (SVaR) is calculated for traded market risk using the same methodology as the regular traded market risk VaR except that the historical data is taken from a 1 year observation period of significant market volatility as seen during the Global Financial Crisis (GFC).

VaR is driven by historical observations and is not an estimate of the maximum loss that the Group could experience from an extreme market event. As a result of this limitation, management also uses stress testing to measure the potential for economic loss at confidence levels significantly higher than 99%. Management then uses these results in decisions to manage the economic impact of market risk positions.

The stress events considered for market risk are extreme but plausible market movements, and have been back-tested against moves seen during 2008 and 2009 at the height of the GFC. The results are reported to the Board Risk and Compliance Committee and the Group's ALCO on a regular basis. Stress tests also include a range of forward looking macroeconomic scenario stresses.

Market Risk (continued)

Market Risk Governance



10.1 Traded Market Risk

The Group trades and distributes financial market products and provides risk management solutions to customers on a global basis.

The objectives of the Group's financial markets activities are to:

- Provide risk management and capital market products and services to customers;
- Efficiently assist in managing the Group's own market risks; and
- Conduct profitable market making within a controlled framework to assist in the provision of products and services to customers.

The Group maintains access to markets by quoting bid and offer prices with other market makers and carries an inventory of treasury, capital market and risk management instruments, including a broad range of securities and derivatives.

The Group participates in all major markets across interest rate, foreign exchange, debt, equity and commodity products as required to provide treasury, capital markets and risk management services to customers of the Group.

Income is earned from spreads achieved through market making and from warehousing market risk. Trading positions are valued at fair value and taken to profit and loss on a mark-to-market basis. Market liquidity risk is controlled by concentrating trading activity in highly liquid markets.

The Group measures and manages traded market risk through a combination of VaR and stress test limits, together with other key controls including permitted instruments, sensitivity limits and term restrictions. Thus traded market risk is managed under a clearly defined risk appetite within the Group Market Risk Policy and limit structure approved by the Board Risk and Compliance Committee. Risk is monitored by the independent Market Risk Oversight function.

Capital Calculation Methods

The Group is accredited by APRA as an Internal Model user for regulatory capital calculation for Group trading book activity.

Consequently, general market risk regulatory capital is calculated for interest rates (including credit spread), foreign exchange, equity and commodity risk using this model.

There are also a small number of products in the trading book for which regulatory capital is determined using the standard method. In accordance with the standard method, the Group applies the maturity method against these products for capital calculations, and a specific risk charge is calculated for debt specific and equity position risk. Inflation linked products and a small number of path dependent rates related products are managed in this manner.

Market Risk (continued)

Capital Calculation Methods (continued)

The breakdown of RWA for traded market risk by modelling method is summarised in the table below.

	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Traded Market Risk RWA by Modelling Approach ¹			
Internal Model Approach	11,455	4,672	9,834
Standard Method	1,002	756	651
Total Traded Market Risk RWA	12,457	5,428	10,485

¹ Refer to page 11 for commentary.

The capital requirement for traded market risk under the standard method is disclosed in APS 330 Table 13b.

APS 330 Table 13b – Traded Market Risk under the Standard Method

Exposure Type	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Interest rate risk	80.2	60.4	51.9
Equity risk	–	0.1	0.2
Foreign exchange risk	–	–	–
Commodity risk	–	–	–
Total	80.2	60.5	52.1
Risk Weighted Asset equivalent ¹	1,002	756	651

¹ Risk Weighted Assets equivalent is the capital requirements multiplied by 12.5 in accordance with APS 110.

Traded Market Risk Internal Model

The VaR and SVaR results calculated under the internal model approach are summarised in APS 330 Table 14f (i).

APS 330 Table 14f (i) – Value-at-Risk and Stressed Value-at-Risk for Trading Portfolios under the Internal Model Approach

	Aggregate VaR Over the Reporting Period			
	Mean value	Maximum value	Minimum value	As at balance date
	\$M	\$M	\$M	\$M
Average VaR ¹				
Over the 6 months to 30 June 2020	109	272	20	124
Over the 6 months to 31 December 2019	31	49	21	36
Over the 6 months to 30 June 2019	30	46	21	40
	Aggregate SVaR Over the Reporting Period			
	Mean value	Maximum value	Minimum value	As at balance date
	\$M	\$M	\$M	\$M
Stressed VaR ¹				
Over the 6 months to 30 June 2020	128	325	34	41
Over the 6 months to 31 December 2019	146	267	33	39
Over the 6 months to 30 June 2019	180	347	98	201

¹ 10 day, 99% confidence interval over the reporting period.

Internal Model Approach – Back-test results

The internal model is subject to back-testing against hypothetical profit and loss. In the 6 months to 30 June 2020 there was one back-test outlier. The back-test results are summarised in APS 330 Table 14f (ii) and details of these are provided in APS 330 Table 14f (iii). A comparison of VaR with actual gains or losses during the 6 months to 30 June 2020 is illustrated in APS 330 Table 14f (iv).

APS 330 Table 14f (ii) - Summary Table of the Number of Back-Testing Outliers ¹

Over the 6 months to 30 June 2020	1
Over the 6 months to 31 December 2019	1
Over the 6 months to 30 June 2019	–

¹ 1 day, 99% confidence interval over the reporting period.

Market Risk (continued)

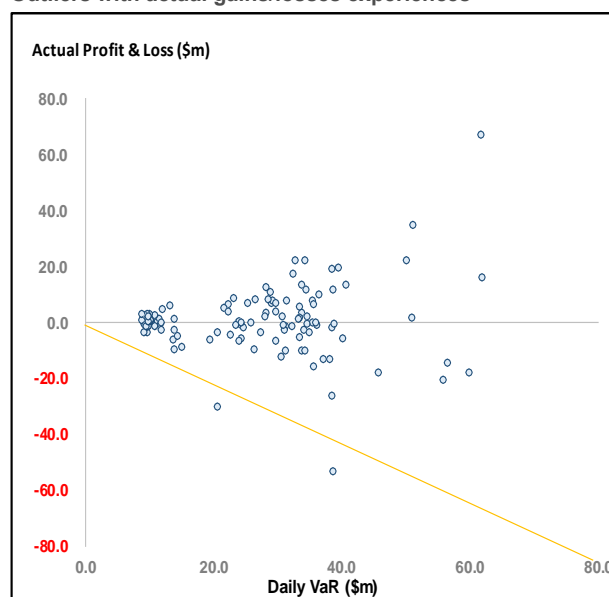
APS 330 Table 14f (iii): Details of Back-Test

Over the Reporting Period 1 January 2020 to 30 June 2020		
Date	Hypothetical loss \$M	VaR 99% \$M
28 February 2020	27	12

Over the Reporting Period 1 July 2019 to 31 December 2019		
Date	Hypothetical loss \$M	VaR 99% \$M
05 August 2019	18	9

Over the Reporting Period 1 January 2019 to 30 June 2019		
Date	Hypothetical loss \$M	VaR 99% \$M
	–	–

APS 330 Table 14f (iv): Comparison of VaR estimates Outliers with actual gains/losses experiences



10.2 Non-Traded Market Risk

Non-traded market risk activities are governed by the Group Market Risk Framework approved by the Board Risk and Compliance Committee. This framework governs all the activities performed in relation to non-traded market risk.

Interest Rate Risk in the Banking Book

Interest rate risk is the current and prospective impact to the Group's financial condition due to adverse changes in interest rates to which the Group's Balance Sheet is exposed. The maturity transformation activities of the Group create mismatches in the repricing terms of asset and liability positions. These mismatches may have undesired earnings and value outcomes depending on the interest rate movements.

The Group's New Zealand banking subsidiary, ASB, manages its own domestic IRRBB in accordance with its own risk management policies and the policies of the Group. The Group also has a relatively small banking subsidiary in Indonesia, PTBC that manages its own IRRBB on a similar basis.

The Group's objective is to manage interest rate risk to achieve stable and sustainable net interest income in the long term.

The Group measures and manages the impact of interest rate risk in two ways:

(i) Next 12 Months' Earnings

Interest rate risk from an earnings perspective is the impact based on changes to the net interest income over the next 12 months.

The risk to net interest income over the next 12 months from changes in interest rates is measured on a monthly basis.

Earnings risk is measured through a sensitivity analysis which applies an instantaneous 100 basis point parallel shock in interest rates across the yield curve.

The prospective change to net interest income is measured by using an Asset and Liability Management simulation model which incorporates both existing and anticipated new business in its assessment.

The change to the Balance Sheet product mix, growth, funding and pricing strategies is incorporated.

Assets and liabilities that reprice directly from observable market rates are measured based on the full extent of the rate shock that is applied. Products that are priced based on Group administered or discretionary interest rates and that are impacted by customer behaviour are measured by taking into consideration the historic repricing strategy of the Group and repricing behaviours of customers. In addition to considering how the products have repriced in the past, the expected change in price based on both the current and anticipated competitive market forces are also considered in the sensitivity analyses.

(ii) Economic Value

Interest rate risk from an economic value perspective is based on a 20-day, 99% VaR measure.

Measuring the change in the economic value of equity is an assessment of the long term impact to the earnings potential of the Group, present valued to the current date. The Group assesses the potential change in the economic value of equity through the application of the VaR methodology.

A 20-day 99% VaR measure is used to capture the net economic value for all Balance Sheet assets and liabilities due to adverse changes in interest rates.

The impact of customer prepayments on the contractual cash flows for fixed rate products is included in the calculation.

Cash flows for discretionary priced products are behaviourally adjusted and repriced at the resultant profile.

Market Risk (continued)

Determining Interest Rate Risk in the Banking Book

APRA requires Australian banks accredited for the Advanced Approach under the Basel III framework to incorporate regulatory capital for IRRBB in their assessment of Total Capital. The capital requirement associated with IRRBB is measured by the Group's internal measurement model which incorporates the following risk calculations:

- Repricing and yield curve risks, which arise from repricing mismatches between assets and liabilities, are jointly determined from the distribution of changes in the economic value of the banking book as a consequence of interest rate changes (overall level of the yield curve and the shape of the yield curve). A historical simulation VaR approach is used, with IRRBB regulatory capital determined with respect to a one year holding period and a 99% level of confidence. Interest rate scenarios are constructed over a historical observation period of six years.
- Basis risk is measured as the risk of loss in earnings of the banking book arising from differences between the actual and expected interest margins on banking book items. The IRRBB regulatory capital requirement for basis risk is measured under a dynamic simulation approach, as the change in net interest income over a 12 month forecast period, in response to an adverse change to implied forward cash rates.
- Optionality risk is measured as the risk of loss in economic value owing to the existence of stand-alone or embedded options in the banking book, to the extent that such potential losses are not included in the measurement of repricing, yield curve or basis risks. Optionality risk arising from a

departure from assumed prepayment behaviour is calculated from a stressed prepayment rate scenario by the VaR model. Optionality risk arising from the use of replicating portfolios for indeterminate maturity or discretionary rate items is measured by the VaR model under an applied mismatch between the underlying product balances and the unhedged term asset positions.

- The embedded loss or gain in banking book items not accounted for on a mark-to-market basis is measured and included in the regulatory capital for IRRBB. The embedded loss or gain measures the difference between the book value and economic value of banking book activities, based on transfer-priced assets and liabilities.

These interest rate risk calculations are summed (subject to the capital requirement not being less than zero in total) and multiplied by 12.5 to derive regulatory RWA for IRRBB in accordance with APS 110.

Stress Testing of Interest Rate Risk in the Banking Book

Stress testing of IRRBB measures the impact of extreme but plausible market movements on both an earnings and an economic value basis. The results are reported to the Board Risk and Compliance Committee and the Group ALCO on a regular basis.

The Stress Testing figures in APS 330 Table 17b (below) represent expected net change in the economic value of assets and liabilities, held for purposes other than trading, based on a 200 basis point parallel rate shock. In addition APS 330 Table 17b includes the regulatory RWA for IRRBB.

APS 330 Table 17b – Interest Rate Risk in the Banking Book

	Change in Economic Value		
	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Stress Testing: Interest Rate Shock Applied			
AUD			
200 basis point parallel increase	(808)	(411)	(702)
200 basis point parallel decrease	870	476	770
NZD			
200 basis point parallel increase	(348)	(370)	(330)
200 basis point parallel decrease	370	393	351
USD			
200 basis point parallel increase	(131)	(148)	(133)
200 basis point parallel decrease	144	159	143
Other			
200 basis point parallel increase	36	(7)	(11)
200 basis point parallel decrease	(37)	8	12
	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Regulatory RWA¹			
Interest rate risk in the banking book	11,085	8,998	9,898

¹ Refer to page 11 for commentary.

Market Risk (continued)

Structural Foreign Exchange Risk

Structural foreign exchange risk is the risk that movements in foreign exchange rates may have an adverse effect on the Group's Australian dollar earnings and economic value when the Group's foreign currency denominated earnings and capital are translated into Australian dollars. The Group's only material exposure to this risk arises from its New Zealand, Asian and US operations. This risk is managed in accordance with the following Risk Committee approved principles:

- Permanently deployed capital in a foreign jurisdiction is not hedged; and
- Forecast earnings from the Group's New Zealand banking subsidiaries are hedged.

The management of structural foreign exchange risk is regularly reported to the Group's ALCO.

Non-Traded Equity Risk

The Group retains non-traded equity risk primarily through business activities in Wealth Management.

A 20-day, 97.5% confidence VaR is used to measure the economic impact of adverse changes in value. The 30 June 2020 VaR measure is \$13 million (30 June 2019: \$22 million).

Lease Residual Value Risk

The Group assumes lease residual value risk on assets such as industrial, mining, rail, aircraft, marine, technology, healthcare and other equipment. A lease residual value guarantee exposes the Group to a potential fall in price of these assets. The lease residual value risk within the Group is controlled through the Risk Management Framework approved by the Board Risk and Compliance Committee. Supporting this framework is an internal Market Risk Standard document, which has a risk limit framework that includes asset, geographic and maturity concentration limits, and stress testing that is performed by the Market Risk Oversight function.

Commonwealth Bank Group Super Fund

The Commonwealth Bank Group Super Fund (the Fund) has a defined benefit portion that creates market risk for the Group. Risk Management and Human Resources provide oversight of the market risks of the Fund held and managed on behalf of the employees receiving defined benefit pension funds on behalf of the Group. For further information on the Fund, refer to Note 10.2 of the 2020 Annual Report.

Operational Risk

11 Operational Risk

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people, systems or from external events. It includes legal, regulatory, fraud, business continuity and technology risks. Operational risk excludes strategic and reputational risks, however the impact to brand and reputation arising from operational risk failures are considered.

Operational Risk Objectives

The Group's operational risk objectives are:

- The maintenance of an effective internal control environment and system;
- The demonstration of effective governance, including a consistent approach to operational risk management across the Group;
- Transparency, escalation and resolution of incidents and issues; and
- Transparent risk reporting to inform quality decision making.

The objectives are designed to support the achievement of the Group's financial and business goals.

Operational Risk Management Framework

The Operational Risk Management Framework (ORMF) is integral to the achievement of the Group's operational risk objectives and is embedded within business practices across the Group. It comprises four core components to ensure sound management and measurement of the Group's operational risk.

The core components are:

- Governance;
- Management, Measurement and Systems;
- Analytics, Review and Reporting; and
- People and Culture.

The ORMF is supported by a single platform, internally referred to as RiskInSite, which enables consistent application of the ORMF across the Group. This includes the assessment of operational risks, monitoring and review activities, escalation and remediation of control weaknesses, loss incident management and reporting to management and the Board.

Compliance Risk Management

Compliance risk is the risk of sanctions and financial loss the Group may suffer as a result of the Group's failure to comply with laws, regulations, rules, statements of regulatory policy, and codes of conduct applicable to its business activities.

The Group's Compliance Management Framework (CMF) is broadly consistent with the Australian Standard on Compliance Programs and aims to help meet the Group's obligations under the *Corporations Act 2001* (Cth), the Group's Australian Financial Services Licence and Australian Credit Licences. The CMF also aims to support the Group's compliance with requirements in the offshore jurisdictions in which it operates. The CMF incorporates key mandatory requirements and roles and responsibilities for managing compliance risk. It captures compliance requirements, Group compliance policies, regulatory change and people and culture considerations.

The CMF is made up of components that together help to identify, assess, manage and report on compliance obligations and compliance risks. The CMF provides for the identification and understanding of the Group's obligations, implementation of controls, policies, processes and procedures to achieve compliance, monitoring and testing of framework effectiveness, and the escalation, remediation, and reporting of compliance incidents and compliance control weaknesses.

APRA Prudential Inquiry report findings

The APRA Prudential Inquiry report published on 1 May 2018 highlighted a number of areas for improvement in the ORMF and CMF.

Following the report, the Group entered into an Enforceable Undertaking (EU) with APRA. Under the terms of the EU, the Group has undertaken a Remedial Action Plan (RAP), which has been endorsed by APRA. The plan outlines the actions it is taking to improve the ORMF and CMF.

The Group remains on track to meet the remaining milestones as scheduled.

Roles and Responsibilities

Every staff member has a responsibility for managing operational risk and compliance. Individual responsibilities are articulated within the position descriptions for each role.

Within the Group, accountability for operational risk and compliance has been structured into a Three Lines of Accountability model, as per section 7. This is the subject of improvements under the RAP.

Risk Mitigation through Insurance

The Group insures against selected unexpected insurable operational risk losses. The Group's insurance program is structured based upon the Group's risk appetite.

In designing the Group's insurance program, the adequacy and appropriateness of cover are considered along with the Group's operational risk profile. The insurance program is reviewed by the Board.

Operational Risk (continued)

Capital Measurement Approach

The Group has approval from APRA to calculate its operational risk regulatory capital using the Basel II Advanced Measurement Approach (AMA), the requirements of which are unchanged under Basel III.

The Operational Risk Measurement System describes the Group's AMA methodology which combines internal and external loss data and judgement-based scenarios into loss distributions using Monte Carlo simulations, to calculate capital for the Group. Direct inputs into the model include scenarios (called Quantitative Risk Assessments), internal loss data and external loss data sourced from an external provider, the Operational Riskdata

eXchange Association. Inputs to scenarios include internal and external loss data, business environment and internal control factors, and business judgement.

Operational risk capital is allocated across the Group's BUs and is used to assist in managing risks and drive risk-adjusted performance management in each BU.

APS 330 Table 6e - Capital requirements for operational risk

	30 Jun 20	31 Dec 19	30 Jun 19
	\$M	\$M	\$M
Total operational risk RWA ¹	57,212	59,511	59,805

¹ Refer to page 11 for commentary.

Liquidity Risk

12 Liquidity Risk

12.1 Liquidity and Funding Risk

Overview

The Group's liquidity and funding policies are designed to ensure it will meet its obligations as and when they fall due by ensuring it is able to issue debt on an unsecured or secured basis, has sufficient liquid assets to borrow against under repurchase agreements, or sell to raise immediate funds without adversely affecting the Group's net asset value.

The Group's liquidity policies are designed to ensure it maintains sufficient cash balances and liquid asset holdings to meet its obligations to customers, in both ordinary market conditions and during periods of extreme stress. These policies are intended to protect the value of the Group's operations during periods of unfavourable market conditions.

The Group's funding policies are designed to achieve diversified sources of funding by product, term, maturity date, investor type, investor location, currency and concentration, on a cost effective basis. This objective applies to the Group's wholesale and retail funding activities.

Liquidity and Funding Risk Management Framework

The CBA Board is ultimately responsible for the sound and prudent management of liquidity risk across the Group. The Group's liquidity and funding policies, structured under a formal Group Liquidity and Funding Risk Management Framework, are approved by the Board and agreed with APRA. The Group ALCO charter includes reviewing the management of assets and liabilities, reviewing liquidity and funding policies and strategies, as well as regularly monitoring compliance with those policies across the Group. Group Treasury manages the Group's liquidity and funding positions in accordance with the Group's Liquidity Policy and supporting standards and has ultimate authority to execute liquidity and funding decisions should the Group Contingency Funding Plan be activated. Risk Management provides oversight of the Group's liquidity and funding risks, compliance with Group policies and manages the Group's relationship with prudential regulators.

Subsidiaries within the Group apply their own liquidity and funding strategies to address their specific needs. The Group's New Zealand banking subsidiary, ASB, manages its own domestic liquidity and funding needs in accordance with its own liquidity policy and the policies of the Group. ASB's liquidity policy is also overseen by the RBNZ.

Liquidity and Funding Policies and Management

The Group's liquidity and funding policies provide that:

- An excess of liquid assets over the minimum prescribed under APRA's LCR requirement is maintained. Australian ADIs are required to meet a 100% LCR, calculated as the ratio of high quality liquid assets to 30 day Net Cash Outflows (NCO) projected under a prescribed stress scenario;
- A surplus of stable funding from various sources, as measured by APRA's NSFR, is maintained. The NSFR is calculated by applying factors prescribed by APRA to assets and liabilities to determine a ratio of required stable funding to available stable funding which must be greater than 100%;
- Additional internal funding and liquidity metrics are calculated and stress tests additional to the LCR are run;
- Short and long term wholesale funding limits are established, monitored and reviewed regularly;

- The Group's wholesale funding market capacity is regularly assessed and used as a factor in funding strategies;
- Balance Sheet assets that cannot be liquidated quickly are funded with stable deposits or term borrowings that meet minimum maturity requirements with appropriate liquidity buffers;
- Liquid assets are held in Australian dollar and foreign currency denominated securities in accordance with expected requirements;
- The Group has three categories of liquid assets within its domestic liquid assets portfolio. The first includes cash, government and Australian semi-government securities. The second includes Negotiable Certificates of Deposit, bank term securities, supranational bonds, Australian RMBS and other securities that meet RBA criteria for purchases under repurchase agreements. The final category is internal RMBS, being mortgages that have been securitised but retained by the Bank, that are repo-eligible with the RBA using the Committed Liquidity Fund (CLF) and TFF; and
- Offshore branches and subsidiaries adhere to liquidity policies and hold appropriate foreign currency liquid assets to meet required regulations.

The Group's key funding tools include:

- Consumer retail funding base, which includes a wide range of retail transaction accounts, savings accounts and term deposits for individual consumers;
- Small business customer and institutional deposit base;
- Wholesale domestic and international funding programmes, which include Australian dollar Negotiable Certificates of Deposit, US and Euro Commercial Paper programmes, Australian dollar Domestic Debt Programme, US Extendible Notes programmes, US Medium-Term Note Programmes, Euro Medium-Term Note Programme, multi jurisdiction Covered Bond programme and Medallion securitisation programmes; and
- Access to the RBA TFF.

The Group's key liquidity tools include:

- A regulatory liquidity management reporting system delivering granular customer and product type information to inform business decision making, product development and resulting in a greater awareness of the liquidity risk adjusted value of banking products;
- A liquidity management model that allows forecasting of liquidity needs on a daily basis;
- An additional liquidity management model that implements the established prudential liquidity requirements. This model is calibrated with a series of "stress" liquidity crisis scenarios, incorporating both systemic and idiosyncratic crisis assumptions, such that the Group will have sufficient liquid assets available to ensure it meets all of its obligations as and when they fall due;
- Central bank repurchase agreement facilities including the RBA's CLF that provide the Group with the ability to borrow funds on a secured basis, even when normal funding markets are unavailable; and
- A robust Contingency Funding Plan that is regularly tested so that it can be quickly activated when required.

Liquidity Risk (continued)

12.2 Liquidity Coverage Ratio

The Group calculates its LCR position on a daily basis, ensuring a buffer is maintained over the minimum regulatory requirement of 100% and the Board's risk appetite. Over the June 2020 quarter, excess liquid assets averaged \$67 billion and the average LCR increased from 133% to 155%.

The Group's mix of liquid assets consists of HQLA, such as cash, deposits with central banks, Australian Semi-Government and Commonwealth Government securities. Liquid assets also include repo-eligible securities with the RBA under the CLF and TFF, and securities classified as liquid assets by the RBNZ. Liquid assets are distributed across the Group to support

regulatory and internal requirements and are consistent with the distribution of liquidity needs by currency. Average Liquid Assets increased over the quarter reflecting strong deposit growth and recognition of the Group's available TFF allocation.

NCOs are modelled under an APRA prescribed 30 day severe liquidity stress scenario. The Group manages modelled NCOs by maintaining a large base of low LCR outflow customer deposits and actively managing its wholesale funding maturity profile as part of its overall liquidity management strategy. Average NCOs increased over the quarter due to strong deposit growth across all customer segments, and further switching from term to at-call deposits.

APS 330 Table 20 - LCR Disclosure Template

	30 Jun 20	30 Jun 20	31 Mar 20	31 Mar 20
	Total unweighted value (average) ¹	Total weighted value (average) ¹	Total unweighted value (average) ¹	Total weighted value (average) ¹
	\$M	\$M	\$M	\$M
Liquid assets, of which:				
1 High quality liquid assets (HQLA)		128,484		105,477
2 Alternative liquid assets (ALA)		61,797		40,705
3 Reserve Bank of New Zealand (RBNZ) securities		539		3,483
Cash outflows				
4 Retail deposits and deposits from small business customers, of which:	330,098	29,822	316,762	28,210
5 Stable deposits	180,437	9,022	173,767	8,688
6 Less stable deposits	149,661	20,800	142,995	19,522
7 Unsecured wholesale funding, of which:	148,162	74,524	129,793	64,958
8 Operational deposits (all counterparties) and deposits in networks for cooperative banks	49,270	12,114	43,917	10,784
9 Non-operational deposits (all counterparties)	88,305	51,823	73,515	41,813
10 Unsecured debt	10,587	10,587	12,361	12,361
11 Secured wholesale funding		1,282		1,121
12 Additional requirements, of which:	155,650	21,262	155,059	22,202
13 Outflows related to derivatives exposures and other collateral requirements	5,764	5,764	6,665	6,665
14 Outflows related to loss of funding on debt products	–	–	–	–
15 Credit and liquidity facilities	149,886	15,498	148,394	15,537
16 Other contractual funding obligations	21	3	34	9
17 Other contingent funding obligations	77,093	9,601	75,304	9,217
18 Total cash outflows		136,494		125,717
Cash inflows				
19 Secured lending	12,019	1,732	18,100	1,794
20 Inflows from fully performing exposures	8,922	6,050	9,324	6,521
21 Other cash inflows	5,149	5,149	5,088	5,088
22 Total cash inflows	26,090	12,931	32,512	13,403
23 Total liquid assets		190,820		149,665
24 Total net cash outflows		123,563		112,314
25 Liquidity Coverage Ratio (%)		155		133
Number of data points used (Business Days)		62		61

¹ The averages presented are calculated as simple averages of daily observations over the previous quarter.

Liquidity Risk (continued)

12.3 Net Stable Funding Ratio

The NSFR requires Australian ADIs to have sufficient Available Stable Funding (ASF) to meet their Required Stable Funding (RSF) over a one year horizon. The Group calculates its NSFR position daily, ensuring a buffer is maintained over the regulatory requirement of 100% and the Board's risk appetite. The ASF and RSF are calculated by applying factors prescribed by APRA, to liabilities, assets and off Balance Sheet commitments.

The Group's main sources of ASF are deposits from retail and SME customers, wholesale funding and capital. The main contributors to RSF are residential mortgages and loans to business and corporate customers.

The increase in the NSFR from 117% to 120% from 31 March 2020 to 30 June 2020 reflects the Group's surplus core funding position and increase in TFF allocation.

As at 30 June 2020					
Unweighted value by residual maturity					
	No Maturity	0 - 6 months	7 - 12 months	> 12 months	Weighted value
	\$M	\$M	\$M	\$M	\$M
Available Stable Funding (ASF) Item					
1 Capital	71,736	–	–	27,269	99,005
2 Regulatory Capital	71,736	–	–	27,269	99,005
3 Other Capital Instruments	–	–	–	–	–
4 Retail deposits and deposits from small business customers	315,248	110,099	22	202	394,155
5 Stable deposits ¹	175,718	46,657	15	13	211,285
6 Less stable deposits ²	139,530	63,442	7	189	182,870
7 Wholesale funding	126,854	140,751	34,356	97,678	183,007
8 Operational deposits	54,603	–	–	–	27,303
9 Other wholesale funding	72,251	140,751	34,356	97,678	155,704
10 Liabilities with matching interdependent assets	–	–	–	–	–
11 Other liabilities	–	21,353	248	2,626	2,751
12 NSFR derivative liabilities	–	11,957	–	–	–
13 All other liabilities and equity not included in the above categories	–	9,396	248	2,626	2,751
14 Total ASF					678,918
Required Stable Funding (RSF) Item					
15 a) Total NSFR HQLA					4,570
15 b) ALA					7,245
15 c) RBNZ Securities					384
16 Deposits held at other financial institutions for operational purposes	–	–	–	–	–
17 Performing loans and securities	1,629	63,578	33,729	618,669	506,583
18 Performing loans to financial institutions secured by Level 1 HQLA	1,313	7,877	–	–	919
19 Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	316	12,486	6,710	16,036	21,311
20 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)	–	33,012	19,672	134,973	140,967
21 of which: with a risk weight of less than or equal to 35% under APS 112	–	47	22	513	368
22 Performing residential mortgages	–	7,067	6,920	463,125	337,512
23 of which: with a risk weight equal to 35% under APS 112	–	6,063	5,921	378,364	264,169
24 Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	–	3,136	427	4,535	5,874
25 Assets with matching interdependent liabilities	–	–	–	–	–
26 Other assets:	3,418	35,564	807	27,701	37,179
27 Physical traded commodities, including gold	3,418	–	–	–	2,905
28 Assets posted as initial margin for derivative contracts and contributions to default funds of central counterparties (CCPs)	–	1,187	–	–	1,009
29 NSFR derivative assets	–	10,680	–	–	–
30 NSFR derivative liabilities before deduction of variation margin posted	–	18,478	–	–	3,696
31 All other assets not included in the above categories	–	5,219	807	27,701	29,569
32 Off Balance Sheet items	–	173,191	–	–	7,826
33 Total RSF					563,787
34 Net Stable Funding Ratio (%)					120

1 Stable deposits are the portion of deposits that are protected under the Financial Claims Scheme where depositors have an established relationship with the Bank or the deposits are in transactional accounts.

2 Less stable deposits are the portion of deposits that do not meet the requirements of stable deposits.

Liquidity Risk (continued)

12.3 Net Stable Funding Ratio (continued)

As at 31 March 2020 ¹					
Unweighted value by residual maturity					
	No Maturity	0 - 6 months	7 - 12 months	> 12 months	Weighted value
	\$M	\$M	\$M	\$M	\$M
Available Stable Funding (ASF) Item					
1 Capital	69,814	–	–	28,585	98,399
2 Regulatory Capital	69,814	–	–	28,585	98,399
3 Other Capital Instruments	–	–	–	–	–
4 Retail deposits and deposits from small business customers	299,490	112,896	14	180	381,083
5 Stable deposits ²	165,809	47,037	10	22	202,235
6 Less stable deposits ³	133,681	65,859	4	158	178,848
7 Wholesale funding	114,189	169,791	45,612	106,027	195,598
8 Operational deposits	48,820	–	–	–	24,410
9 Other wholesale funding	65,369	169,791	45,612	106,027	171,188
10 Liabilities with matching interdependent assets	–	–	–	–	–
11 Other liabilities	–	25,960	304	1,863	2,015
12 NSFR derivative liabilities	–	13,857	–	–	–
13 All other liabilities and equity not included in the above categories	–	12,103	304	1,863	2,015
14 Total ASF					677,095
Required Stable Funding (RSF) Item					
15 a) Total NSFR HQLA					4,341
15 b) ALA					6,495
15 c) RBNZ Securities					483
16 Deposits held at other financial institutions for operational purposes	–	–	–	–	–
17 Performing loans and securities	474	68,917	37,643	634,007	519,784
18 Performing loans to financial institutions secured by Level 1 HQLA	192	15,667	–	–	1,586
19 Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	282	16,474	6,761	19,844	25,738
20 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)	–	26,879	23,604	141,780	145,649
21 of which: with a risk weight of less than or equal to 35% under APS 112	–	43	30	524	377
22 Performing residential mortgages	–	6,928	6,820	468,892	341,848
23 of which: with a risk weight equal to 35% under APS 112	–	5,892	5,845	383,526	268,056
24 Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	–	2,969	458	3,491	4,963
25 Assets with matching interdependent liabilities	–	–	–	–	–
26 Other assets:	797	45,093	636	26,710	37,639
27 Physical traded commodities, including gold	797	–	–	–	678
28 Assets posted as initial margin for derivative contracts and contributions to default funds of central counterparties (CCPs)	–	1,205	–	–	1,024
29 NSFR derivative assets	–	17,396	–	–	3,539
30 NSFR derivative liabilities before deduction of variation margin posted	–	19,068	–	–	3,814
31 All other assets not included in the above categories	–	7,424	636	26,710	28,584
32 Off Balance Sheet items	–	171,951	–	–	8,500
33 Total RSF					577,242
34 Net Stable Funding Ratio (%)					117

1 This includes the effect of a retrospective change in the accounting policy which impacted the Group during the reporting period. For more details refer to the 2020 Annual Report Note 1.1.

2 Stable deposits are the portion of deposits that are protected under the Financial Claims Scheme where depositors have an established relationship with the Bank or the deposits are in transactional accounts.

3 Less stable deposits are the portion of deposits that do not meet the requirements of stable deposits.

Appendices

13 Appendices

13.1 Detailed Capital Disclosures Template (APS 330 Attachment A)

The Group is applying the Basel III regulatory adjustments in full, as implemented by APRA. These tables should be read in conjunction with Appendix 13.3 Regulatory Balance Sheet and Appendix 13.4 Reconciliation between Detailed Capital Template and Regulatory Balance Sheet.

	30 Jun 20 Basel III APRA	30 Jun 20 Basel III Internationally Comparable
	%	%
Summary Group Capital Adequacy Ratios (Level 2)		
CET1	11.6	17.4
Tier 1	13.9	20.4
Total Capital	17.5	24.9

Appendices (continued)

13.1 Detailed Capital Disclosures Template (APS 330 Attachment A) (continued)

	30 Jun 20 Basel III \$M	Reconciliation Table Reference
Common Equity Tier 1 Capital: instruments and reserves		
1	38,131	Table A
2	30,886	
3	2,668	
4	–	
5	–	Table B
6	71,685	
Common Equity Tier 1 Capital: regulatory adjustments		
7	(16)	
8	(5,988)	Table C
9	(1,594)	Table C
10	–	Table D
11	(1,513)	
12	–	
13	–	
14	–	
15	(476)	
16	–	
17	–	
18	–	Table G
19	–	Table G
20	–	
21	–	Table D
22	–	
23	–	Table G
24	–	
25	–	Table D
CET1 (Internationally Comparable)		62,098

1 As at 30 June 2020, there is no shortfall with eligible credit provisions in excess of regulatory expected loss (pre-tax) using stressed LGD assumptions associated with the loan portfolio included in row 50. The Group's GRCL methodology results in an amount lower than the provision recognised for accounting purposes, resulting in no additional GRCL requirement.

2 In accordance with APRA regulations, the surplus in the Group's defined benefit superannuation fund, net of any deferred tax liability, must be deducted from CET1.

Appendices (continued)

13.1 Detailed Capital Disclosures Template (APS 330 Attachment A) (continued)

	30 Jun 20 Basel III \$M	Reconciliation Table Reference
APRA Specific Regulatory Adjustments		
26	National specific regulatory adjustments (rows 26a, 26b, 26c, 26d, 26e, 26f, 26g, 26h, 26i, 26j)	
26a	of which: treasury shares	51
26b	of which: offset to dividends declared due to a dividend reinvestment plan (DRP), to the extent that the dividends are used to purchase new ordinary shares issued by the ADI	–
26c	of which: deferred fee income	–
26d	of which: equity investments in financial institutions not reported in rows 18, 19 and 23	(4,918)
26e	of which: deferred tax assets not reported in rows 10, 21 and 25	(3,176)
26f	of which: capitalised expenses	(765)
26g	of which: investments in commercial (non-financial) entities that are deducted under APRA prudential requirements	(159)
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	(558)
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 ¹	(19,112)
29	Common Equity Tier 1 Capital (APRA)	52,573
Additional Tier 1 Capital: instruments		
30	Directly issued qualifying Additional Tier 1 instruments	
31	of which: classified as equity under applicable accounting standards	–
32	of which: classified as liabilities under applicable accounting standards	10,695
33	Directly issued capital instruments subject to phase out from Additional Tier 1	146
34	Additional Tier 1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in Group AT1)	–
35	of which: instruments issued by subsidiaries subject to phase out	–
36	Additional Tier 1 Capital before regulatory adjustments	10,841
Additional Tier 1 Capital: regulatory adjustments		
37	Investments in own Additional Tier 1 instruments	–
38	Reciprocal cross-holdings in Additional Tier 1 instruments	–
39	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the ADI does not own more than 10% of the issued share capital (amount above 10% threshold)	–
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	–
41	National specific regulatory adjustments (rows 41a, 41b, 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	–
44	Additional Tier 1 Capital (AT1)	10,841
45	Tier 1 Capital (T1=CET1+AT1)	63,414
Tier 2 Capital: instruments and provisions		
46	Directly issued qualifying Tier 2 instruments	14,552
47	Directly issued capital instruments subject to phase out from Tier 2	296
48	Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)	–
49	of which: instruments issued by subsidiaries subject to phase out	–
50	Provisions	1,597
51	Tier 2 Capital before regulatory adjustments	16,445

¹ Total regulatory adjustments to CET1 of \$19,112 million in row 28 is net of APRA's allowance for treasury shares held by the Group's eligible employee share scheme trusts of \$51 million as detailed in row 26a.

Appendices (continued)

13.1 Detailed Capital Disclosures Template (APS 330 Attachment A) (continued)

	30 Jun 20 Basel III \$M	Reconciliation Table Reference
Tier 2 Capital: regulatory adjustments		
52	(15)	
53	–	
54	(1)	
55	–	
56	–	
56a	–	
56b	–	
56c	–	
57	(16)	
58	16,429	
59	79,843	
60	454,948	
Capital ratios and buffers		
61	11.6%	
62	13.9%	
63	17.5%	
64	8.0%	
65	3.5%	
66	–	Table H
67	n/a	
68	11.6%	
National minima		
69	–	
70	–	
71	–	
Amount below thresholds for deductions (not risk weighted)		
72	554	Table G
73	4,364	Table G
74	–	
75	3,176	Table D
Applicable caps on the inclusion of provisions in Tier 2		
76	220	
77	210	
78	1,387	
79	2,086	
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2018 and 1 Jan 2022)		
80	–	
81	–	
82	1,049	
83	–	Table E
84	645	
85	–	Table F

Appendices (continued)

13.2 Detailed Leverage Disclosures Template (APS 330 Attachment E)

APS 330 Table 19 – Summary comparison of accounting assets vs leverage ratio exposure measure

	30 Jun 20 Basel III APRA \$M
1 Total consolidated assets as per published financial statements	1,014,060
2 Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(6,152)
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	(2,656)
5 Adjustment for SFTs (i.e. repos and similar secured lending)	391
6 Adjustment for off Balance Sheet exposures (i.e. conversion to credit equivalent amounts of off Balance Sheet exposures)	86,282
7 Other adjustments	(18,794)
8 Leverage ratio exposure	1,073,131

APS 330 Table 18 – leverage ratio disclosure template

	30 Jun 20 Basel III APRA \$M
On Balance Sheet exposures	
1 On Balance Sheet items (excluding derivatives and securities financing transactions (SFTs), but including collateral)	958,385
2 Asset amounts deducted in determining Tier 1 capital	(18,794)
3 Total On Balance Sheet exposures (excluding derivatives and SFTs)	939,591
Derivative exposures	
4 Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	11,371
5 Add-on amounts for potential future credit exposure (PFCE) associated with all derivatives transactions	14,679
6 Gross-up for derivatives collateral provided where deducted from the Balance Sheet assets pursuant to the Australian Accounting Standards	–
7 (Deductions of receivables assets for cash variation margin provided in derivatives transactions)	–
8 (Exempted central counterparty (CCP) leg of client-cleared trade exposures)	–
9 Adjusted effective notional amount of written credit derivatives	1,814
10 (Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(235)
11 Total derivative exposures	27,629
SFT exposures	
12 Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	19,238
13 (Netted amounts of cash payables and cash receivables of gross SFT assets)	–
14 CCR exposure for SFT assets	391
15 Agent transaction exposures	–
16 Total SFT exposures	19,629
Other Off Balance Sheet exposures	
17 Off Balance Sheet exposure at gross notional amount	182,515
18 (Adjustments for conversion to credit equivalent amounts)	(96,233)
19 Other Off Balance Sheet exposures	86,282
Capital and total exposures	
20 Tier 1 Capital	63,414
21 Total exposures	1,073,131
Leverage ratio	
22 Leverage ratio (%)	5.9

Appendices (continued)

13.3 Regulatory Balance Sheet

The following table provides details on the Group's Balance Sheet and the Level 2 Regulatory Balance Sheet as at 30 June 2020.

	Group Balance Sheet \$M	Adjustment ¹ \$M	Level 2 Regulatory Balance Sheet \$M	Template/ Reconciliation Table Reference
Assets				
Cash and liquid assets	44,165	–	44,165	
Receivables due from other financial institutions	8,547	–	8,547	
Assets at fair value through Income Statement	46,545	(236)	46,309	
Derivative assets	30,285	–	30,285	
Investment securities:				Table G
At amortised cost	5,173	–	5,173	
At fair value through Other Comprehensive Income	79,549	–	79,549	
Loans, bills discounted and other receivables	771,547	(5,605)	765,942	
Investment in regulatory non-consolidated subsidiaries	–	1,429	1,429	Table G
Property, plant and equipment	5,602	–	5,602	
Investment in associates and joint ventures	3,034	–	3,034	Table G
Intangible assets	6,944	704	7,648	Table C
Deferred tax assets	2,060	(51)	2,009	Table D
Other assets	8,839	(901)	7,938	
Assets held for sale	1,770	(1,492)	278	Table G
Total assets	1,014,060	(6,152)	1,007,908	
Liabilities				
Deposits and other public borrowings	701,999	856	702,855	
Payables due to other financial institutions	16,429	–	16,429	
Liabilities at fair value through Income Statement	4,397	–	4,397	
Derivative liabilities	31,347	–	31,347	
Deferred tax liabilities	30	(30)	–	Table D
Current tax liabilities	795	–	795	
Provisions	3,408	(331)	3,077	
Debt issues	142,503	(5,745)	136,758	
Bills payable and other liabilities	13,188	(268)	12,920	
Loan capital	27,357	–	27,357	Table E
Liabilities held for sale	594	(310)	284	
Total liabilities	942,047	(5,828)	936,219	
Net assets	72,013	(324)	71,689	
Shareholders' Equity				
Ordinary Share capital	38,131	–	38,131	Row 1, Table A
Reserves	2,666	2	2,668	Row 3
Retained profits	31,211	(325)	30,886	Row 2
Shareholders' Equity attributable to Equity holders of the Bank	72,008	(323)	71,685	
Non-controlling interests	5	(1)	4	Table B
Total Shareholders' Equity	72,013	(324)	71,689	

¹ Reflects the deconsolidation of the insurance and funds management entities and those entities through which securitisation of the Group's assets are conducted. These entities are classified as non-consolidated subsidiaries by APRA and are excluded from the Level 2 Regulatory Consolidated Banking Group.

Appendices (continued)

13.4 Reconciliation between Detailed Capital Disclosures Template and Regulatory Balance Sheet

The following tables provide additional information on the differences between the detailed capital disclosures template (Appendix 13.1) and the Regulatory Balance Sheet (Appendix 13.3).

Table A	30 Jun 20 \$M	Template Reference
Share Capital		
Ordinary Share Capital	38,131	
Total per Balance Sheet (Ordinary Share Capital Internationally Comparable) ¹	38,131	Row 1
Treasury Shares held by the Group's employee share scheme trusts (APRA specific adjustment)	51	Row 26a
Total Ordinary Share Capital and Treasury Shares (APRA)	38,182	

Table B	30 Jun 20 \$M	Template Reference
Non-Controlling Interests		
Total per Balance Sheet ¹	4	
Less other non controlling interests not included in capital	(4)	
Total per Capital Template (APRA and Internationally Comparable)	-	Row 5

Table C	30 Jun 20 \$M	Template Reference
Goodwill and Other Intangibles		
Total per Balance Sheet ¹	7,648	
Less capitalised software and other intangibles separately disclosed in template	(1,660)	
Total per Capital Template - Goodwill (APRA and Internationally Comparable)	5,988	Row 8
Other intangibles (including capitalised software) per Balance Sheet	1,660	
Less deferred tax liability associated with other intangibles	(66)	
Total per Capital Template - Other Intangibles (APRA and Internationally Comparable)	1,594	Row 9

Table D	30 Jun 20 \$M	Template Reference
Deferred Tax Assets		
Deferred tax assets per Balance Sheet ¹	2,009	
Less deferred tax liabilities per Balance Sheet ¹	-	
Net Deferred Tax Assets ²	2,009	
Adjustments required in accordance with APRA prudential standards ³	1,167	
Deferred tax asset adjustment before applying prescribed thresholds (APRA specific adjustment)	3,176	Row 26e
Less amounts below prescribed threshold - risk weighted ⁴	(3,176)	Row 75
Total per Capital Template (Internationally Comparable)	-	Row 10, 21, 25

1 Represents the balance per Level 2 Regulatory Balance Sheet.

2 Represents the balance of deferred tax assets net of deferred tax liabilities per Level 2 Regulatory Balance Sheet.

3 Represents the deferred tax balances associated with reserves ineligible for inclusion in regulatory capital, the general reserve for credit losses, intangibles, and the impact of limitations of netting of balances within the same geographic tax authority.

4 The BCBS allows these items to be risk weighted at 250% if the balance falls below prescribed threshold levels. APRA require these to be deducted from CET1.

Appendices (continued)

13.4 Reconciliation between Detailed Capital Template and Regulatory Balance Sheet (continued)

Table E	30 Jun 20 \$M	Template Reference
Additional Tier 1 Capital		
Total Loan Capital per Balance Sheet ¹	27,357	
Less fair value hedge adjustments ²	(1,687)	
Total Loan Capital net of issue costs at their contractual values	25,670	
Less amount related to Tier 2 Capital Instruments	(14,879)	
Total Tier 1 Loan Capital	10,791	
Add issue costs ³	50	
Less Basel III transitional relief amortisation for directly issued instruments ⁴	–	Row 83
Less Basel III transitional relief amortisation for instruments issued by subsidiaries ⁴	–	Row 83
Total per Capital Template (APRA)	10,841	Row 36
Additional Tier 1 Capital Instruments comprises		
Basel III Complying Instruments		
PERLS VII	3,000	
PERLS VIII	1,450	
PERLS IX	1,640	
PERLS X	1,365	
PERLS XI	1,590	
PERLS XII	1,650	
	10,695	Row 32
Basel III Non-Complying Instruments		
Other Instruments	146	
Less Basel III transitional relief amortisation for directly issued instruments ⁴	–	Row 83
	146	Row 33
Total Basel III Non Complying Instruments	146	
Total Additional Tier 1 Capital Instruments (APRA)	10,841	Row 36

Table F	30 Jun 20 \$M	Template Reference
Tier 2 Capital Instruments		
Total included in Balance Sheet	14,879	
Less amount of Tier 2 debt issued by subsidiary ineligible for inclusion in the Group's Capital ⁵	(68)	
Add issue costs ³	37	
Less amortisation of instruments ⁶	–	
Less Basel III transitional relief amortisation for directly issued instruments ⁴	–	Row 85
Total per Capital Template (APRA and Internationally Comparable)	14,848	Row 46, 47

1 Represents the balance per Level 2 Regulatory Balance Sheet.

2 For regulatory capital purposes, APRA requires these instruments to be included as if they were unhedged.

3 Unamortised issue costs relating to capital instruments are netted off against each instrument in the Balance Sheet. For regulatory capital purposes, these capital instruments are shown at face value. The unamortised issue costs are deducted from CET1 as part of capitalised expenses in Row 26f in the Detailed Capital Disclosures Template.

4 Basel III transitional arrangements apply to directly issued capital instruments and instruments issued by subsidiaries not compliant with the new Basel III requirements.

5 Represents notes issued by the Group through ASB, its New Zealand subsidiary. The amount of these notes that contributes to ASB capital in excess of its minimum regulatory requirements is not eligible for inclusion in the Group's capital.

6 APRA requires these instruments to be amortised by 20% of the original amount during each of the last five years to maturity. This is in addition to Basel III transitional arrangements.

Details on the main features of Capital instruments included in the Group's regulatory capital, (Ordinary Share Capital, Additional Tier 1 Capital and Tier 2 Capital) as required by APS 330 Attachment B can be found at Commbank.com.au/regulatorydisclosures

Appendices (continued)

13.4 Reconciliation between Detailed Capital Template and Regulatory Balance Sheet (continued)

Table G	30 Jun 20	Template
	\$M	Reference
Equity Investments		
Investment in commercial entities	159	Row 26g
Investments in significant financial entities	2,935	Row 26d, 73
Investments in non-significant financial entities	554	Row 26d, 72
	3,648	
Equity investment in non-consolidated subsidiaries	1,429	Row 26d, 73
Total equity investments before applying prescribed thresholds APRA specific adjustment ¹	5,077	
Less amounts risk weighted under Internationally Comparable ²	(5,077)	
Total per Capital Template (Internationally Comparable)	–	Row 18, 19, 23

1 Equity investments are classified in the Level 2 Regulatory Balance Sheet across Investments in Associates, Assets held for Sale, Investment Securities and Investment in non-consolidated subsidiaries. In addition, the Group has undrawn commitments (off Balance Sheet) which are deemed in the nature of equity for regulatory capital purposes.

2 The aggregate of investments in significant financial entities of \$2,935 million, investments in non-significant financial entities of \$554 million and equity investment in non-consolidated subsidiaries of \$1,429 million is a total of \$4,918 million and is included in row 26d in the Detailed Capital Disclosures Template. The BCBS allows for equity investments to be concessionally risk weighted provided they are below prescribed thresholds. APRA requires such items to be deducted 100% from CET1. The remaining balance of \$159 million related to investments in commercial entities are risk weighted under Internationally Comparable methodology, with no prescribed threshold limits.

Countercyclical Capital Buffer

The countercyclical capital buffer (CCyB), which is effective for Australian ADIs from 1 January 2016, represents an extension to the capital conservation buffer and may require an ADI to hold additional CET1 of up to 2.5%. The CCyB is calculated as the sum of the specific buffer set by APRA with respect to Australian private sector exposures and the weighted average for offshore private sector exposures where the CCyB has been enacted.

Table H	RWA ²	Jurisdictional Buffer	ADI Specific Buffer ³	Template
	\$M	%	%	Reference
Country ¹				
Hong Kong	874	1.000%	0.002400%	
Norway	924	1.000%	0.002536%	
Luxembourg	206	0.250%	0.000141%	
Others	362,348	0.000%	0.000000%	
Total	364,352		0.005077%	Row 66

1 Represents country of ultimate risk as at 30 June 2020.

2 Represents total private sector (excludes Banks and Sovereigns) credit and specific market risk RWA.

3 Calculated as each country share of total private sector credit and specific market RWA multiplied by the CCyB applicable in each country.

Appendices (continued)

13.5 Entities excluded from Level 2 Regulatory Consolidated Group

The legal entities included within the accounting scope of consolidation, but excluded from the Level 2 Regulatory Consolidated Group are detailed below.

The total assets and liabilities should not be aggregated as some of the entities listed are holding companies for other entities included in the table below.

Entity name	Total Assets \$M	Total Liabilities \$M
(a) Securitisation		
Medallion Trust Series 2017-1	1,253	1,255
Medallion Trust Series 2017-2	1,555	1,557
Medallion Trust Series 2018-1	1,635	1,637
Medallion Trust Series 2019-1	1,317	1,319

Entity name	Total Assets \$M	Total Liabilities \$M
(b) Insurance and Funds Management		
Avanteos Investments Limited	86	27
Avanteos Pty Ltd	–	–
CISL (No. 1) Pty Limited	–	–
Colonial Mutual Superannuation Pty Ltd	9	–
Colonial Services Pty Limited	–	–
Commonwealth Custodial Services Pty Ltd	–	–
Commonwealth Insurance Limited	1,089	844
Colonial First State Investments Limited	869	440
Emerald Holding Company Pty Limited	–	–
Premium Alternative Investments Pty Limited	–	–
Premium Plantations Pty Limited	–	–
Premium Plantations Services Pty Ltd	–	–
St Andrew's Australia Pty Ltd	–	–

Appendices (continued)

13.6 List of APRA APS 330 Tables

The following schedule lists the quantitative tables in this document as referenced in APS 330 paragraphs 12, 47 and Attachments A to H.

APS 330 Table	Title	Page No.
Para 12a	Regulatory Balance Sheet	88
Para 12b	Entities excluded from Level 2 Regulatory Consolidated Group	92
Para 12c and 12d	Reconciliation between Detailed Capital Template and Regulatory Balance Sheet	89
Para 47	Summary Group Leverage Ratio	9
1	Detailed Capital Disclosure Template	83
1.2	Private sector credit exposures by geographic region	91
2	Main features of capital instruments ⁽¹⁾	n/a
5a	Total securitisation activity for the reporting period	69
5b	Summary of total securitisation exposures retained or purchased	69
6b to 6f	Basel III Capital Requirements (RWA)	10
6e	Capital requirements for operational risk	78
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¹ Details can be found at CommBank.com.au/regulatorydisclosures.

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1 Details can be found at Commbank.com.au/regulatorydisclosures.

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13.8 Glossary

Term	Definition
Additional Tier 1 Capital (AT1)	Additional Tier 1 Capital is concept defined by APRA and consists of high quality capital that essentially provides a permanent and unrestricted commitment of funds, is freely available to absorb losses, ranks behind the claims of depositors and other more senior creditors in the event of a wind-up, and provides for fully discretionary capital distributions.
Authorised Deposit-taking Institution (ADI)	ADIs are corporations that are authorised under the Banking Act 1959 to carry on banking business in Australia.
ADI Prudential Standards (APS)	APRA's ADI Prudential Standards. For more information, refer to the APRA website.
Advanced Internal Ratings-based (AIRB) Approach	Used to measure credit risk in accordance with the Group's Basel III accreditation that allows the Group to use internal estimates of PD, LGD and EAD for the purposes of calculating regulatory capital.
Advanced Measurement Approach (AMA)	Used to measure operational risk in accordance with the Group's Basel III accreditation that allows the Group to use its own internal model for the purposes of calculating regulatory capital.
ALCO	CBA's Asset and Liability Committee
Alternate Liquid Asset (ALA)	Assets that qualify for inclusion in the numerator of the LCR in jurisdictions where there is insufficient supply of HQLA.
ASB	ASB Bank Limited – a subsidiary of the Commonwealth Bank of Australia that is directly regulated by the Reserve Bank of New Zealand.
Australian Accounting Standards	The Australian Accounting Standards as issued by the Australian Accounting Standards Board (AASB).
Australian Prudential Regulation Authority (APRA)	The regulator of banks, insurance companies and superannuation funds, credit unions, building societies and friendly societies in Australia.
Bank	Basel asset class – includes claims on ADIs and overseas banks.
Banking Book	Exposures not contained in the trading book.
Basel II	Refers to the Basel Committee on Banking Supervision's Revised Framework for International Convergence of Capital Measurement and Capital Standards issued in June 2006 and as subsequently amended.
Basel 2.5	Refers to the Basel II framework revised (2009) to include additional requirements such as the Incremental Risk Charge (IRC), Stressed VaR (SVaR), the treatment of securitisation exposure and the Comprehensive Risk Measure (CRM) for certain correlation trading activities.
Basel III	Refers to the Basel Committee on Banking Supervision's framework for more resilient banks and banking systems issued December 2010 (revised June 2011) and Capital requirements for bank exposures to central counterparties (July 2012).
CBA	Commonwealth Bank of Australia – the head entity of the Group.
Central Counterparty (CCP)	A clearing house that interposes itself between counterparties to contracts traded in one or more financial markets, thereby ensuring the future performance of open contracts.
Collective Provision	All loans and receivables that do not have an individually assessed provision are assessed collectively for impairment. The collective provision is maintained to reduce the carrying value of the portfolio of loans to their estimated recoverable amounts. These provisions are reported in the Group's Financial Statements in accordance with Australian Accounting Standards (AASB 9 <i>Financial Instruments</i>).
Committed Liquidity Facility (CLF)	The Reserve Bank of Australia (RBA) provides the CLF to participating ADIs under the LCR, as a shortfall in Commonwealth government and semi-government securities exists in Australia. ADIs can draw under the CLF in a liquidity crisis against qualifying securities pledged to the RBA. The amount of the CLF for each ADI is set by APRA annually.

Appendices (continued)

13.8 Glossary (continued)

Term	Definition
Common Equity Tier 1 (CET1) Capital	The highest quality of capital available to the Group reflecting the permanent and unrestricted commitment of funds that are freely available to absorb losses. It comprises ordinary share capital, retained earnings and reserves less prescribed deductions.
Corporate	Basel asset class - includes commercial credit risk where annual revenues are \$50 million or more.
Countercyclical capital buffer (CCyB)	An extension of the capital conservation buffer that can be imposed by the national authority to protect the banking sector from periods of excess credit growth that have often been associated with the build-up of system-wide risk.
Counterparty Credit Risk (CCR)	The risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows.
Credit Equivalent Amount	The on Balance Sheet equivalent value of an off Balance Sheet transaction.
Credit Valuation Adjustment (CVA) Risk Exposure at Default (EAD)	The risk of mark-to-market losses related to deterioration in the credit quality of a derivative counterparty. The extent to which a bank may be exposed upon default of an obligor.
Extended Licenced Entity (ELE)	An extended licensed entity (ELE) comprises an ADI and any subsidiaries of the ADI that have been approved by APRA as being part of a single 'standalone' entity.
External Credit Assessment Institution (ECAI)	For example: Moody's Investor Services, S&P Global Ratings or Fitch Ratings.
General Reserve for Credit Losses (GRCL)	APS 220 "Credit Quality" (APS 220) requires the Group to establish a reserve that covers credit losses prudently estimated, but not certain to arise, over the full life of all individual facilities making up the business of the ADI. Most of the Group's collective provisions are included in the GRCL. An excess of required GRCL over the Group's collective provisions is recognised as a deduction from CET1.
Group	Commonwealth Bank of Australia and its subsidiaries.
High Quality Liquid Assets (HQLA)	Assets which meet APRA's criteria for inclusion as HQLA in the numerator of the LCR.
Impaired Assets	Facilities are classified as impaired where there is doubt as to whether the full amounts due, including interest and other payments due, will be achieved in a timely manner.
Individual provisions	Provisions made against individual facilities in the credit-rated managed segment where there is objective evidence of impairment and full recovery of principal and interest is considered doubtful. These provisions are as reported in the Group's Financial Statements in accordance with the Australian Accounting Standards (AASB 9 <i>Financial Instruments</i>). Also known as individually assessed provisions or IAP.
Interest Rate Risk in the Banking Book (IRRBB)	Interest Rate Risk in the Banking Book (IRRBB) is the risk that the Bank's profit derived from Net Interest Income (interest earned less interest paid), in current and future periods, is adversely impacted from changes in interest rates. This is measured from two perspectives: firstly by quantifying the change in the net present value of the Balance Sheet's future earnings potential, and secondly as the anticipated change to Net Interest Income earned over 12 months. This calculation is driven by APRA regulations with further detail outlined in the Bank's Basel III Pillar 3 report.
Level 1	The Parent Bank (Commonwealth Bank of Australia) and offshore branches (the Bank) and APRA approved Extended Licensed Entities (ELE).
Level 2	The level at which the Group reports its capital adequacy to APRA, being the Consolidated Banking Group comprising the ADI and all of its subsidiary entities other than the insurance and funds management entities through which securitisation of Group assets is conducted. This is the basis on which the report has been produced.
Level 3	The conglomerate group including the Group's insurance and funds management businesses (the Group).

Appendices (continued)

13.8 Glossary (continued)

Term	Definition
Leverage Ratio	Tier 1 Capital divided by total exposures, with this ratio expressed as a percentage.
Liquidity Coverage Ratio (LCR)	The LCR is a quantitative liquidity measure that is part of the Basel III reforms. It was implemented by APRA in Australia on 1 January 2015. It requires Australian ADIs to hold sufficient liquid assets to meet 30 day net cash outflows projected under an APRA-prescribed stress scenario.
Loss Given Default (LGD)	An estimate of the expected severity of loss for a credit exposure following a default event. LGD represents the fraction of EAD that is not expected to be recovered following default.
Monte Carlo Simulation	A method of random sampling to achieve numerical solutions to mathematical problems.
Net Cash Outflows (NCO)	Net cash outflows in the LCR are calculated by applying prescribed run-off factors on liabilities and various off Balance Sheet exposures that can generate a cash outflow in the next 30 days.
Net Stable Funding Ratio (NSFR)	The NSFR more closely aligns the behaviour term of assets and liabilities. It is the ratio of the amount of available stable funding (ASF) to the amount of required stable funding (RSF). ASF is the portion of an ADI's capital and liabilities expected to be a reliable source of funds over a one year time horizon. RSF is a function of the liquidity characteristics and residual maturities of an ADI's assets and off Balance Sheet activities.
Other Assets	Basel asset class – primarily includes Cash, Investments in Related Entities, Fixed Assets and Margin Lending.
Other Retail	Basel asset class – primarily includes retail credit exposures not otherwise classed as a residential mortgage, SME retail or a qualifying revolving retail asset.
Past Due	Facilities are past due when a contracted amount, including principal or interest, has not been met when due or it is otherwise outside contracted arrangements.
Probability of Default (PD)	The likelihood that a debtor fails to meet an obligation or contractual commitment.
Prudential Capital Ratio (PCR)	The regulatory minimum CET1, Tier 1 and Total Capital ratios that the Group is required to maintain at all times.
Qualifying Revolving Retail (QRR)	Basel asset class – represents revolving exposures to individuals less than \$0.1m, unsecured and unconditionally cancellable by the Group. Only Australian retail credit cards qualify for this AIRB asset class.
RBA	Reserve Bank of Australia.
RBNZ	Reserve Bank of New Zealand.
Residential Mortgage	Basel asset class – retail exposures secured by residential mortgage property.
Risk Weighted Assets (RWA)	The value of the Group's On and off Balance Sheet assets are adjusted by risk weights calculated according to various APRA prudential standards. For more information, refer to the APRA website.
Scaling Factor	In order to broadly maintain the aggregate level of capital in the global financial system post implementation of Basel II, the Basel Committee on Banking Supervision applies a scaling factor to the RWA amounts for credit risk under the IRB approach of 1.06.
Securities Financing Transactions (SFT)	APRA defines SFTs as “transactions such as repurchase agreements, reverse repurchase agreements, and security lending and borrowing, and margin lending transactions, where the value of the transactions depends on the market valuation of securities and the transactions are typically subject to margin agreements.”
Securitisation	Basel asset class – Group originated securitised exposures and the provision of facilities to customers in relation to securitisation activities.
SME Corporate	Basel asset class – Small and Medium Enterprise (SME) commercial credit risk where annual revenues are less than \$50 million and exposures are greater than \$1 million.

Appendices (continued)

13.8 Glossary (continued)

Term	Definition
SME Retail	Basel asset class – Small and Medium Enterprise (SME) exposures up to \$1 million that are not secured by residential mortgage property.
SME Retail Secured by Residential Mortgage	Basel asset class – Small and Medium Enterprise (SME) exposures up to \$1 million that are partly or fully secured by residential mortgage property.
Sovereign	Basel asset class – primarily includes claims on Australian and foreign governments, central banks (including Reserve Bank of Australia), international banking agencies and regional development banks.
Specialised Lending	Basel asset classes subject to the supervisory slotting approach and which include Income Producing Real Estate (IPRE), object finance, project finance and commodity finance.
Specific Provisions	APS 220 “Credit Quality” (APS 220) requires ADIs to report as specific provisions all provisions for impairment assessed by an ADI on an individual basis in accordance with the Australian Accounting Standards and that portion of provisions assessed on a collective basis which are deemed ineligible to be included in the General Reserve for Credit Losses (which are primarily collective provisions on some defaulted assets).
Standardised Approach	An alternate approach to the assessment of credit, operational and traded market risk whereby an ADI uses external ratings agencies to assist in assessing credit risk and/or the application of specific values provided by regulators to determine RWA.
Stressed Value-at-Risk (SVaR)	Stressed Value-at-Risk (SVaR) uses the same methodology as Value-at-Risk (VaR) except that the historical data used is taken from a one year observation period of significant market volatility as seen during the Global Financial Crisis.
Tier 1 Capital	Comprises CET1 and Additional Tier 1 Capital.
Tier 2 Capital	Capital items that fall short of the necessary conditions to qualify as Tier 1 Capital.
Total Capital	Comprises CET 1, Additional Tier 1 Capital and Tier 2 Capital.
Total Exposures (as used in the leverage ratio)	The sum of on Balance Sheet items, derivatives, securities financing transactions (SFTs), and off Balance Sheet items, net of any Tier 1 regulatory deductions that are already included in these items, as outlined in APS 110 “Capital Adequacy” (APS 110) Attachment D.
Trading Book	Exposures, 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)	Value-at-Risk (VaR) is a measure of potential loss using historically observed market volatility and correlation between different markets.