

Basel III Pillar 3

Capital Adequacy
and Risk Disclosures
as at 30 June 2022

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10 August 2022

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The release of this announcement was authorised by the Board.

Commonwealth Bank of Australia | Media Release 145/2022 | ACN 123 123 124 | Commonwealth Bank Place South Level 1,
11 Harbour Street, Sydney NSW 2000 | 10 August 2022

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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 insurance businesses and certain 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 requirements 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*. The Group has completed a number of activities in the year to enhance internal controls related to the calculation of RWA, and PwC's recommendations for further enhancement have been incorporated into the Group's ongoing improvement plans.

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

The Group in Review

	30 Jun 22	31 Dec 21	30 Jun 21
Summary Group Capital Adequacy Ratios (Level 2)	%	%	%
Common Equity Tier 1	11.5	11.8	13.1
Additional Tier 1	2.1	2.2	2.6
Tier 1	13.6	14.0	15.7
Tier 2	4.0	4.0	4.1
Total Capital (APRA)	17.6	18.0	19.8
Common Equity Tier 1 (Internationally Comparable) ¹	18.6	18.4	19.4

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

Group Capital Ratios

As at 30 June 2022, the Group's Basel III Common Equity Tier 1 (CET1), Tier 1 and Total Capital ratios as measured on an APRA basis were 11.5%, 13.6% and 17.6% respectively. The Basel III CET1 ratio was 18.6% on an internationally comparable basis.

Leverage Ratio

The Group's leverage ratio, which is defined as Tier 1 Capital as a percentage of total exposures, was 5.2% as at 30 June 2022 on an APRA basis and 5.9% on an internationally comparable basis.

Liquidity Coverage 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 130% in the June 2022 quarter.

In September 2021, APRA announced a sector-wide phased reduction in the reliance on the Committed Liquidity Facility (CLF) to zero by the end of 2022, subject to financial market conditions, as APRA and the Reserve Bank of Australia (RBA) expect there will be sufficient High Quality Liquid Assets (HQLA) for ADIs to meet their LCR requirements without the need to utilise the CLF.

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 130% at 30 June 2022.

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.

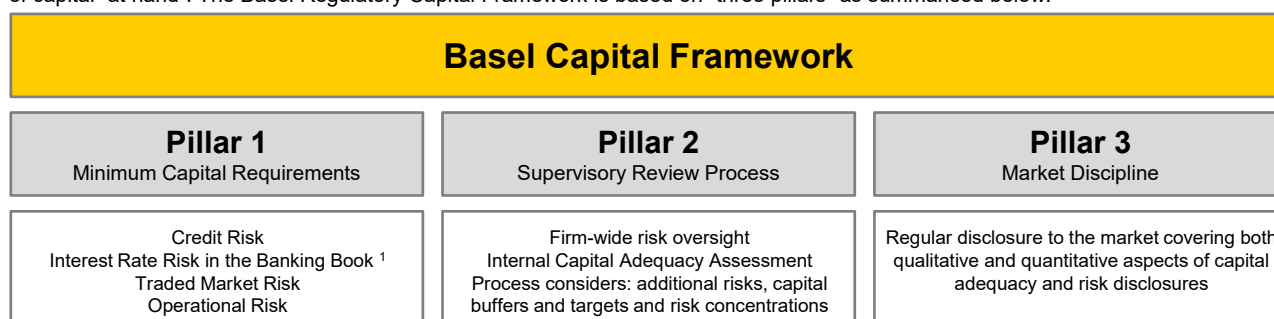
The Group's capital forecasting process and capital plans are in place to ensure a sufficient capital buffer above minimum levels is maintained at all times. The Group manages its capital by regularly and simultaneously considering regulatory capital requirements, rating agency views on the capital required 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.

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 8.3 “Portfolios Subject to Standardised and Supervisory Risk Weights” (page 38).

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 or Prudential Capital Requirement (PCR) of 4.5%. An additional CET1 capital conservation buffer (CCB) of 3.5%, inclusive of a Domestic Systemically Important Bank (D-SIB) requirement of 1% and a CCyB of 0%, brings the CET1 requirement to 8%.

In December 2021, 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.

Under the revised regulatory capital framework to be implemented by APRA from 1 January 2023, a number of revisions have been made including a 2.25% increase in the CCB, inclusive of a 1% CCyB, bringing the total CET1 requirement to 10.25%. Further details on these changes are provided on page 6.

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 the 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 within 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 2022 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](https://www.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 businesses and certain entities through which securitisation of Group assets is conducted; and
- **Level 3:** the conglomerate group including the Group's insurance 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 Table 6g of this report (page 8).

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.

CBA Europe N.V. and PT Bank Commonwealth (PTBC) apply the Standardised Basel III methodology in calculating their local regulatory capital requirements. Effective from March 2022, APRA approved CBA Europe N.V. to apply the Internal Ratings-based (IRB) approach for the purpose of determining the Group's capital requirement at Level 2.

During the year ended June 2022:

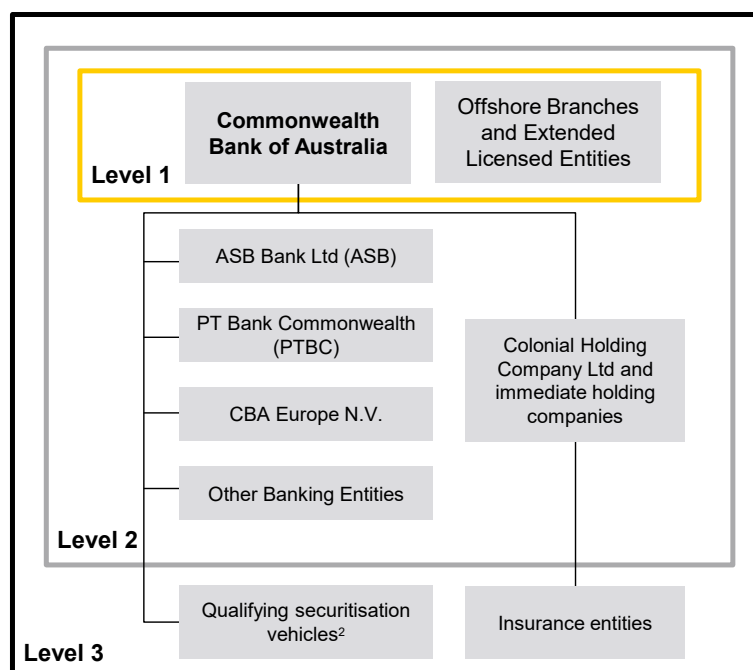
- The Group completed the majority sale of Colonial First State (CFS); and
- CommBank Europe Limited voluntarily surrendered its Banking Licence to the Malta Financial Services Authority and ceased to be a banking entity.

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 7), 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 A detailed list of non-consolidated entities is provided in Appendix 13.5.

² Securitisation that meets APRA's operational requirements for regulatory capital relief under APS 120 *Securitisation* (APS 120).

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, the ICAAP, which is an integration of risk, financial and capital management processes.

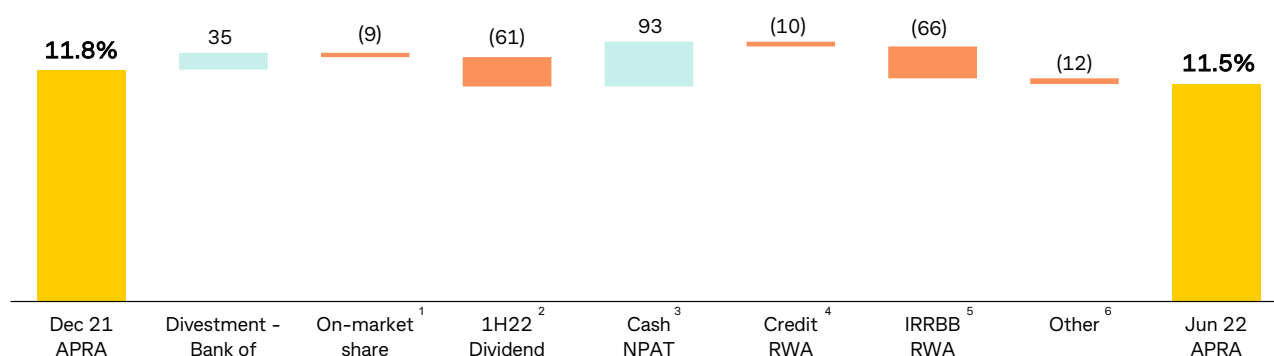
APRA advises the Group of its Prudential Capital Ratio (PCR), which represents the regulatory minimum CET1, Tier 1 and Total Capital ratios that the Group is required to maintain at all times. In order to ensure there is no breach of these minimum levels, APRA expects the Group to maintain a prudent 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 subordinated debt issuances. 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 – CET1 (APRA)

-30 bpts in 2H22



1 Partial completion of previously announced \$2 billion on-market share buy-back with 4,853,197 shares purchased at an average price of \$96.42, resulting in a reduction of \$468 million in CET1 as at 30 June 2022.

2 The 2022 interim dividend included the on-market purchase of \$501 million of shares (CET1 impact of 10 basis points) in respect of the DRP.

3 Excludes net equity accounted profits from associates as they are capital neutral with offsetting increases in regulatory capital deductions.

4 Excludes impact of foreign exchange (FX) movements which is included in 'Other'.

5 Excludes impact from change in hedge accounting treatment for swaps no longer deemed effective, which is capital neutral with offsetting increases in regulatory capital deductions.

6 Includes the impact of intangible assets, equity investments, FX impact on Credit RWA, movement in reserves and the hedge accounting impact on IRRBB RWA.

Capital Position

The Group's CET1 ratio (APRA) was 11.5% as at 30 June 2022, a decrease of 30 basis points from 31 December 2021 and a decrease of 160 basis points from 30 June 2021. The CET1 ratio was above APRA's 'unquestionably strong' benchmark of 10.5% and consistently well in excess of regulatory minimum capital adequacy requirements at all times throughout the financial year ended 30 June 2022.

Key drivers of the change in CET1 for the 6 months ended 30 June 2022 were:

- Higher total RWA (-76 basis points, mainly driven by increased IRRBB);
- The 2022 interim dividend (-61 basis points) in which the DRP was satisfied in full by the on-market purchase of shares;

- Other regulatory adjustments (-12 basis points); and
- \$468 million of the announced \$2 billion on-market share buy-back completed (-9 basis points); partly offset by
- Capital generated from earnings (+93 basis points); and
- Completion of the sale of a 10% shareholding in the Bank of Hangzhou (+35 basis points).

Further details on movements in RWA are detailed on pages 11-12.

Internationally Comparable Capital Position

The Group's CET1 ratio as measured on an internationally comparable basis was 18.6% as at 30 June 2022, placing it amongst the top quartile of international peer banks.

Capital (continued)

Capital Initiatives

In addition to the share buy-backs, the following significant capital initiatives were undertaken during the year ended 30 June 2022:

Common Equity Tier 1 Capital

- The DRP in respect of the 2021 final dividend was satisfied in full by the on-market purchase of shares. The participation rate for the final DRP was 16.1%; and
- The DRP in respect of the 2022 interim dividend was satisfied in full by the on-market purchase of shares. The participation rate for the interim DRP was 16.8%.

Additional Tier 1 Capital

- In October 2021, the Bank redeemed AUD1,450 million CommBank PERLS VIII Capital Notes that are Basel III compliant Additional Tier 1 Capital; and
- In March 2022, the Group issued AUD1,750 million CommBank PERLS XIV Capital Notes and concurrently redeemed AUD1,640 million CommBank PERLS IX Capital Notes, both are Basel III compliant Additional Tier 1 Capital.

Tier 2 Capital

The Group issued the following Basel III compliant subordinated notes:

- AUD1,500 million and AUD135 million in August 2021;
- AUD136 million and JPY14 billion in September 2021;
- USD1,250 million in March 2022;
- AUD700 million and AUD400 million in April 2022; and
- JPY30.5 billion in May 2022.

The Group redeemed the following Basel III compliant subordinated notes:

- USD750 million in October 2021;
- JPY20 billion and two JPY10 billion notes in December 2021;
- ASB redeemed NZD400 million in December 2021;
- JPY13.3 billion and HKD608 million in March 2022; and
- EUR590 million in April 2022.

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.

Under the existing capital framework, APRA's expectation is that the Australian major banks will operate for the majority of the year with a CET1 ratio of 10.5% or more. As at 30 June 2022, the Group's CET1 ratio was 11.5%, and was above the 10.5% benchmark for the entire 2022 financial year.

In November 2021, APRA finalised the revisions to the overall design of the capital framework, to be implemented on 1 January 2023. These revisions will result in changes to the calculation of RWA and will therefore result in changes to the presentation of bank capital ratios. APRA expects that capital ratios will increase, as the amount of RWA will likely fall.

Further detail on the proposed APRA reforms is provided below.

COVID-19 Announcements

COVID-19 Customer Support Measures

The Group's customer support measures, including the temporary loan deferral programs, concluded during the year

ended 30 June 2022, with the vast majority of customers participating in the loan deferral programs returning to regular repayments on their loans.

Regulatory Reforms

APRA

Implementation of revised regulatory capital framework

From 1 January 2023, APRA will implement its revisions to the ADI capital framework. The objectives of these revisions are to increase the risk sensitivity within the capital framework, to enhance the ability of ADIs to respond flexibly to future stress events, and to improve the comparability of the Australian framework with international standards.

APRA's revisions, which were finalised in November 2021, include the following changes with respect to major IRB ADIs such as CBA:

- A minimum CET1 Capital Ratio of 10.25%, which is comprised of a minimum PCR of 4.5% and a CCB of 5.75%, which includes a D-SIB buffer of 1% and a baseline CCyB set at 1%. The CCyB, which may be varied by APRA in the range of 0-350 basis points, can be released in times of systemic stress and post-stress recovery;
- Enhancing risk sensitivity in the residential mortgage and commercial property portfolio, through greater allowance of an ADI's own models to measure credit risk capital, and higher capital requirements for high-risk segments such as interest only and investor mortgages;
- Replacing the operational risk AMA with a standardised approach across the industry;
- Implementing a 72.5% output floor to limit the gap in capital requirements between standardised and IRB ADIs; and
- Further aligning the RWA of New Zealand banking subsidiaries at the consolidated group level by adopting a revised version of the RBNZ capital framework.

Further APRA Revisions

In January 2022, APRA changed its approach on equity exposures to banking and insurance subsidiaries of ADIs under the revised APS 111 *Capital Adequacy: Measurement of Capital*. The revised standard requires each individual equity exposure to 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 Level 1 CET1 capital. The revision resulted in an increase to the Group's Level 1 CET1 capital ratio of 20 basis points. There is no impact to the Group's Level 2 CET1 capital ratio.

On 1 January 2022, the APRA requirements released under the final APS 222 *Associations with Related Entities* became effective. 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.

On 1 January 2022, the APRA requirements released under the final APS 220 *Credit Risk Management* became effective. The revised standard is broader in application covering credit standards as well as the ongoing monitoring and management of credit portfolios.

From 1 January 2024, D-SIBs, including CBA, will be required to hold an additional Total Capital requirement of 3% of RWA to satisfy APRA's loss-absorbing capacity requirements. This will increase to 4.5% from 1 January 2026.

Capital (continued)

Regulatory Reforms (continued)

APRA (continued)

Further APRA Revisions (continued)

In January 2024, changes to APS 117 *Capital Adequacy: Interest Rate Risk in the Banking Book* will be implemented by APRA. This is expected to be followed by changes to APS 116 *Capital Adequacy: Market Risk* (APS 116), also known as the Fundamental Review of the Trading Book, and APS 180 *Capital Adequacy: Counterparty Credit Risk* (APS 180) in 2025. APRA is yet to commence consultation on the changes to APS 116 and APS 180.

Reserve Bank of New Zealand (RBNZ)

In June 2021, the RBNZ finalised its bank capital adequacy requirements. These requirements include the RWA of New Zealand IRB banks, such as ASB, increasing 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 instruments issued by New Zealand banks will no longer be eligible under RBNZ's new capital criteria.

These reforms have been phased in from 1 October 2021 with full implementation on 1 July 2028.

Additionally on 2 June 2022, the RBNZ announced that as of 1 July 2022, it will remove the dividend restrictions placed on New Zealand banks at the height of the COVID-19 pandemic.

Group Regulatory Capital Position

	30 Jun 22	31 Dec 21	30 Jun 21
	%	%	%
Summary Group Capital Adequacy Ratios (Level 2)			
Common Equity Tier 1	11.5	11.8	13.1
Additional Tier 1	2.1	2.2	2.6
Tier 1	13.6	14.0	15.7
Tier 2	4.0	4.0	4.1
Total Capital (APRA)	17.6	18.0	19.8
Common Equity Tier 1 (Internationally Comparable)¹	18.6	18.4	19.4

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

	30 Jun 22	31 Dec 21	30 Jun 21
	\$M	\$M	\$M
Group Regulatory Capital Position			
Ordinary share capital and treasury shares	36,493	36,958	38,432
Reserves	(460)	2,848	3,249
Retained earnings	36,695	34,736	36,528
Common Equity Tier 1 Capital before regulatory adjustments	72,728	74,542	78,209
Common Equity Tier 1 regulatory adjustments	(15,705)	(19,078)	(19,343)
Common Equity Tier 1 Capital	57,023	55,464	58,866
Additional Tier 1 Capital ¹	10,535	10,563	12,008
Tier 1 Capital	67,558	66,027	70,874
Tier 2 Capital	19,992	18,928	18,472
Total Capital	87,550	84,955	89,346
Risk Weighted Assets	497,892	471,927	450,680

¹ Prior periods include APRA Basel III non-compliant Additional Tier 1 and Tier 2 Capital Instruments that were eligible for inclusion in regulatory capital up until 1 January 2022 as part of the Basel III transitional relief arrangements.

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

Capital (continued)

Group Regulatory Capital Position (continued)

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

	30 Jun 22	31 Dec 21	30 Jun 21
Significant Group ADIs	%	%	%
CBA Level 1 CET1 Capital ratio	11. 8	12. 0	13. 3
CBA Level 1 Tier 1 Capital ratio	14. 1	14. 4	16. 1
CBA Level 1 Total Capital ratio	18. 4	18. 6	20. 3
ASB CET1 Capital ratio ¹	12. 3	12. 9	12. 7
ASB Tier 1 Capital ratio ¹	13. 5	14. 5	14. 4
ASB Total Capital ratio ¹	15. 0	14. 6	15. 1

¹ Calculated in accordance with the RBNZ Prudential Requirements.

	30 Jun 22	31 Dec 21	30 Jun 21
CBA Level 1	\$M	\$M	\$M
Common Equity Tier 1 Capital	54,569	53,447	57,078
Additional Tier 1 Capital ¹	10,535	10,563	12,008
Tier 1 Capital	65,104	64,010	69,086
Tier 2 Capital ¹	19,924	18,934	18,165
Total Capital	85,028	82,944	87,251
Risk Weighted Assets	461,320	444,878	429,948

¹ Prior periods include APRA Basel III non-compliant Additional Tier 1 and Tier 2 Capital Instruments that were eligible for inclusion in regulatory capital up until 1 January 2022 as part of the Basel III transitional relief arrangements.

	30 Jun 22	31 Dec 21	30 Jun 21
ASB Banking Group ¹	NZ\$M	NZ\$M	NZ\$M
Common Equity Tier 1 Capital	8,379	7,924	7,803
Additional Tier 1 Capital	875	1,000	1,000
Tier 1 Capital	9,254	8,924	8,803
Tier 2 Capital	1,013	23	432
Total Capital	10,267	8,947	9,235
Risk Weighted Assets	68,301	61,465	61,252

¹ Calculated in accordance with the RBNZ Prudential Requirements.

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 2022, the Group's internationally comparable CET1, Tier 1 and Total Capital ratios were 18.6%, 21.5% and 27.1% respectively. The basis of this analysis aligns with the APRA study. The following table provides details on the differences, as at 30 June 2022, 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)			11.5	13.6	17.6
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.	0.5	0.4	0.3
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.	0.3	0.3	0.2
IRRBB RWA	3.3.2	APRA requires capital to be held for IRRBB. The BCBS does not have any capital requirement.	1.2	1.3	1.6
Residential mortgages	3.3.1	Loss Given Default (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.	2.8	3.2	4.1
Other retail standardised exposures	3.3.6	Risk weighting of 75%, rather than 100% under APRA's requirements.	–	–	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	0.5	0.6
Specialised lending	3.3.5	Use of AIRB Probability of Default (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.	1.3	1.5	1.7
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	0.2
Basel III (Internationally Comparable - aligns with APRA study)			18.6	21.5	27.1

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.

Leverage Ratio

5

Leverage Ratio

The Group's Leverage Ratio, defined as Tier 1 Capital as a percentage of total exposures, was 5.2% at 30 June 2022 on an APRA basis, representing a decrease of 10 basis points from 31 December 2021. This decrease was driven by a 4% increase in exposures due to higher lending volumes and liquid assets, partly offset by a 2% increase in Tier 1 Capital. On an internationally comparable basis, the ratio was 5.9% as at 30 June 2022.

In November 2021, APRA released final prudential standards, which included changes to the definition of exposures related to derivatives and off Balance Sheet items and a minimum leverage ratio requirement of 3.5% for IRB banks, applicable from 1 January 2023.

Summary Group Leverage Ratio ¹	30 Jun 22	31 Mar 22	31 Dec 21	30 Sep 21	30 Jun 21
Tier 1 Capital (\$M)	67,558	64,764	66,027	69,594	70,874
Total Exposures (\$M) ²	1,295,368	1,247,225	1,240,349	1,216,213	1,178,061
Leverage Ratio (APRA) (%)	5.2	5.2	5.3	5.7	6.0
Leverage Ratio (Internationally Comparable) (%) ³	5.9	6.0	6.2	6.6	6.9

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 2022 exposures.

3 The Tier 1 Capital included in the calculation of the internationally comparable leverage ratio aligns with the 13 July 2015 APRA study titled "International capital comparison study" and includes Basel III non-compliant Tier 1 instruments that were subject to transitional rules. These non-compliant instruments were phased out in full from inclusion in Regulatory Capital effective 1 January 2022.

Risk Weighted Assets

6 Risk Weighted Assets

RWA are calculated using the AIRB approach for the majority of the Group's credit risk exposures. The Group must use the External Ratings-based Approach where a securitisation exposure is externally rated by an External Credit Assessment Institution (ECAI) or for which an inferred rating is available. Where the Group cannot use the External Ratings-based Approach, the Group must use the Supervisory Formula Approach.

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

Asset Category	Risk Weighted Assets			Change in RWA for	
	30 Jun 22	31 Dec 21	30 Jun 21	June 2022 half	
	\$M	\$M	\$M	\$M	%
Credit Risk					
Subject to AIRB approach ¹					
Corporate	69,621	68,406	66,664	1,215	1.8
SME corporate	29,671	30,141	29,845	(470)	(1.6)
SME retail	5,797	5,730	5,935	67	1.2
SME retail secured by residential mortgage	2,725	2,789	2,947	(64)	(2.3)
Sovereign	2,249	2,463	2,466	(214)	(8.7)
Bank	4,194	4,359	5,379	(165)	(3.8)
Residential mortgage	171,819	167,999	159,758	3,820	2.3
Qualifying revolving retail	5,022	5,031	5,466	(9)	(0.2)
Other retail	8,815	10,804	11,177	(1,989)	(18.4)
Total RWA subject to AIRB approach	299,913	297,722	289,637	2,191	0.7
Specialised lending	67,078	65,825	63,705	1,253	1.9
Subject to standardised approach					
Corporate	506	1,289	1,234	(783)	(60.7)
SME corporate	573	641	805	(68)	(10.6)
SME retail	2,169	2,291	2,500	(122)	(5.3)
Sovereign	322	348	289	(26)	(7.5)
Bank	50	48	52	2	4.2
Residential mortgage	6,429	6,380	6,523	49	0.8
Other retail	1,078	971	938	107	11.0
Other assets	8,276	8,028	8,013	248	3.1
Total RWA subject to standardised approach	19,403	19,996	20,354	(593)	(3.0)
Securitisation	3,439	3,486	3,106	(47)	(1.3)
Credit valuation adjustment	3,136	3,110	4,157	26	0.8
Central counterparties	678	548	591	130	23.7
Total RWA for credit risk exposures	393,647	390,687	381,550	2,960	0.8
Traded market risk	10,683	10,803	8,307	(120)	(1.1)
Interest rate risk in the banking book	47,640	24,356	14,619	23,284	95.6
Operational risk	45,922	46,081	46,204	(159)	(0.3)
Total risk weighted assets	497,892	471,927	450,680	25,965	5.5

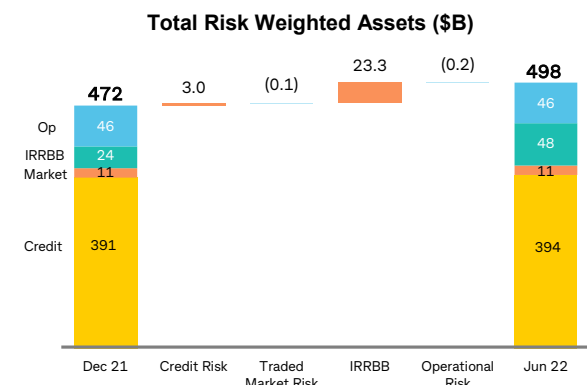
¹ Pursuant to APRA requirements, RWA amounts derived from AIRB risk weight functions have been multiplied by a scaling factor of 1.06.

Risk Weighted Assets (continued)

Risk Weighted Assets

Total Group RWA

Total RWA increased \$26.0 billion or 6% on the prior half to \$497.9 billion driven by increases in Interest Rate Risk in the Banking Book (IRRBB) RWA and Credit Risk RWA.



Credit Risk RWA

Credit Risk RWA increased \$3.0 billion or 1% on the prior half to \$393.6 billion. Key drivers include:

- Volume growth (increase of \$7.5 billion) across residential mortgages, commercial portfolios and standardised exposures, partly offset by a reduction in unsecured retail portfolios;
- Credit quality movement (increase of \$0.5 billion) driven by an increase in residential mortgage risk weights, partly offset by improvements primarily across non-retail portfolios;
- Foreign currency movements (decrease of \$1.4 billion); and
- Data and methodology:
 - Credit risk estimates and regulatory treatments movements (decrease of \$2.1 billion), primarily driven by regulators' approval of an ASB credit cards model; and
 - Data, methodology and other changes (decrease of \$1.5 billion).

Explanation of Change in Credit Risk RWA

The composition of the movement in Credit Risk RWA over the half is shown below.

Asset Category	Credit RWA movement drivers					
	Change in RWA for Jun 22 half \$M	Volume changes \$M	FX changes \$M	Credit risk estimates changes and regulatory treatments \$M	Data and methodology changes \$M	Change in credit quality ¹ \$M
AIRB corporate including SME and specialised lending	2,001	3,568	(464)	652	(1,176)	(579)
AIRB bank	(165)	89	6	—	(22)	(238)
AIRB sovereign	(214)	(21)	(24)	6	(214)	39
AIRB consumer retail	1,822	3,148	(902)	(1,810)	—	1,386
Standardised ²	(437)	692	(48)	(988)	(71)	(22)
Securitisation exposures	(47)	12	—	—	—	(59)
Total credit RWA movement	2,960	7,488	(1,432)	(2,140)	(1,483)	527

¹ Credit quality includes portfolio mix.

² Including other assets, Central Counterparty (CCP) and Credit Valuation Adjustment (CVA).

Credit Risk Weighted Assets (\$B)



¹ Credit quality includes portfolio mix.

² Includes data and methodology, credit risk estimate changes and regulatory treatments.

Traded Market Risk RWA

Traded Market Risk RWA decreased \$0.1 billion or 1% on the prior half to \$10.7 billion.

Interest Rate Risk in the Banking Book (IRRBB) RWA

IRRBB RWA increased \$23.3 billion or 96% on the prior half to \$47.6 billion. This was driven by higher interest rate volatility which increased embedded losses and repricing and yield curve risk of the hedges on the Group's equity. In order to avoid significant earnings volatility through a rate cycle, the Group's equity is invested over a three year investment term (known as "the duration of equity"). Due to increased market rate volatility in the current half, in particular the significant increase in market swap rates, the amount of IRRBB capital recognised has increased, mainly reflecting the valuation differences to equity invested over a one year term.

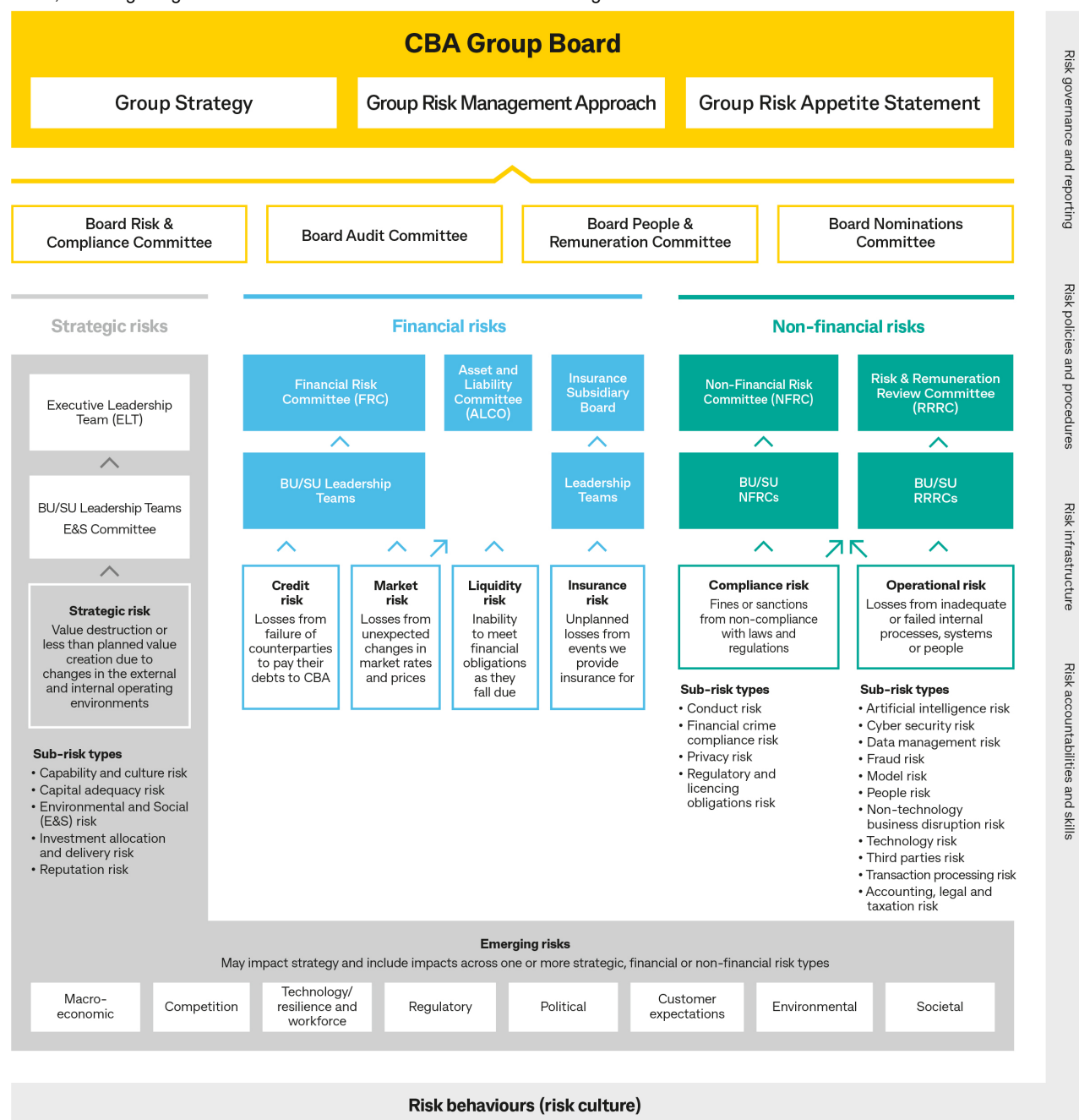
Operational Risk RWA

Operational risk RWA decreased by \$0.2 billion on the prior half to \$45.9 billion. As at 30 June 2022, the operational risk RWA includes a \$6.25 billion add-on required by APRA. 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.

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.



BU/SU: Business Units and Support Units

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 level of risk that the Group must operate within;

- **The Group Risk Management Approach (RMA)** describes the Group's approach to ensure management of its material risks in support of achieving its strategic goals and objectives; and
- **The Group Strategy** outlines the Group's approach to the implementation of its strategic objectives. The Strategy has a rolling three year duration and reflects material risks to the Group.

Risk Management (continued)

Risk Management Framework (continued)

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
- 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.

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; and
- **Risk models and tools.**

Risk Accountabilities and Skills

The Group operates a Three Lines of Accountability model that places the accountability for risk ownership with the Line 1 BUs and SUs, while focusing 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.

The effective management of the Group's material risks requires appropriate resourcing of skilled employees within each of the Group's Three Lines of Accountability. It is important for all Group employees to have an awareness of their risk accountabilities in relation to their role, the Framework, and the need to adopt the CBA Risk Behaviours to ensure a positive Group risk culture. This awareness is developed through:

- **Communication of the Group RAS and the Group RMA:** Following approval by the Board, the updated RAS and RMA are made available to all employees;
- **Performance and remuneration frameworks** are designed to drive accountability for managing risks and adopting risk behaviours that lead to appropriate outcomes for all stakeholders. Each year employees are assessed on how they met the risk management expectations of their role as part of the annual performance review;
- **Group mandatory learning modules;**
- **The Operational Risk and Compliance Training program;** and
- **Induction and ongoing learning.**

Risk Culture and Conduct Risk

Risk culture is the beliefs, values and behaviours within the Group 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 underpinned by our CBA values of Care, Courage and Commitment.

The Group'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 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.

Risk Management (continued)

Material Risk Types

Description	Governing Policies and Key Management Committees	Key Controls and Risk Mitigation Strategies
Credit Risk (Section 8)		
Credit risk is the potential for loss arising from the failure of a counterparty to meet their contractual obligations to the Group. The Group is primarily exposed to credit risk through: - Residential mortgage lending; - Unsecured retail lending; - Commercial lending; and - Large corporate (institutional) lending and markets exposures.	Governing Policies: - Group and BU Credit Risk Policies, Principles, Framework and Governance Key Management Committees: - Financial Risk Committee - BU/SU Financial Risk Committees	- 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 appropriate credit quality assessments; - Applications assessed by credit decisioning models, with more complex or higher risk applications referred to credit authority holders who exercise expert judgement; - Taking collateral where appropriate; - Pricing appropriately for the risks the Group is taking; - 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 customers in financial difficulty, or those in danger of becoming so, to help them rehabilitate their financial positions; and - Stress testing, both at a counterparty and portfolio level.
Market Risk including Equity Risk (Section 9 and 10)		
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. The Group is primarily exposed to market risk through: - Traded Market Risk; - Interest Rate Risk in the Banking Book (IRRBB); - Structural Foreign Exchange Risk; - Lease Residual Value Risk; and - Non-traded Equity Risk.	Governing Policy: - Group Market Risk Policy Key Management Committees: - Financial Risk Committee and IB&M Financial Risk Committee (Oversight of traded market risk) - Asset and Liability Committee (ALCO) (oversight of IRRBB)	- Defined market risk 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 Value-at-Risk (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 Risk (Section 12)		
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). The Group is exposed to liquidity risk primarily through: The funding mismatch between the Group's loans, investments and sources of funding.	Governing Policy: - Group Liquidity Policy Key Management Committee: - ALCO	- 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.

Risk Management (continued)

Material Risk Types (continued)

Description	Governing Policies and Key Management Committees	Key Controls and Risk Mitigation Strategies
Operational Risk (Section 11)		
Operational risk is the risk of loss arising from inadequate or failed internal processes, systems or people, or from external events. The Group is exposed to operational risk primarily through: - Accounting, Legal and Taxation risks; - Artificial Intelligence risks; - Cyber security risks; - Data management risks; - Fraud risks (external and internal); - Model risks; - Non-technology business disruption risks; - People risks (employment practices and workplace safety); - Technology risks (disruptions from hardware or software failures); - Third party risks; and - Transaction processing risks.	Governing Policies: - Operational Risk Management Framework (ORMF) - Group Information Security (IS) Policy - Group Data Management Policy - Group Fraud Management Policy - Group Whistleblower Policy - Group Model Policy - Group Policy on Business Continuity Management - Group Protective Security Policy - Group IT Service Support and Management Policy - Group Supplier Lifecycle Policy Key Management Committees: - Non-Financial Risk Committee - BU/SU Non-Financial Risk Committees - Model Risk Governance Committee (MRGC)	- 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		
Compliance risk is the risk of legal or regulatory sanctions, material financial loss, or loss of reputation that the Group may incur as a result of its failure to comply with its obligations. The Group is exposed to compliance risk primarily through: ▪ Laws, regulations, rules, licence conditions, and statements of regulatory policy; ▪ Privacy laws and regulations regarding the collection, handling and protection of personal information of individuals; ▪ Financial crime (regulation relating to 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).	Governing Policies: ▪ Group Compliance Management Framework (CMF) and Policies ▪ Group and BU Compliance Policies and Standards ▪ Group Privacy Policy ▪ AML/CTF Group Program ▪ Anti-Bribery and Corruption Policy ▪ Group Economic Trade Sanctions Policy ▪ Code of Conduct ▪ Product Development and Distribution Policy Key Management Committees: ▪ Non-Financial Risk Committee ▪ BU/SU Non-Financial Risk Committees	▪ Compliance and privacy risk indicators included in the Group RAS; ▪ Mandatory online Compliance and Privacy training for all employees; ▪ Regulatory change management to establish compliant business practices; ▪ Maintenance of obligation registers; ▪ Compliance Privacy risk profiling through the RCSA process; ▪ 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 of 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		
Insurance risk is the risk of loss due to the potential for events the Group has provided insurance for, 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.	Governing Policies: - Product Development and Distribution Policy - Underwriting Policy - Pricing Policy - Claims Management Policy - Reinsurance Management Policy Key Management Committee: - Executive Committees of insurance writing businesses	- 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		
Strategic risk is the risk of material stakeholder value destruction or less than planned value creation.	Governing Policies: - Group Strategic Risk Management Policy - Stress Testing Policy - Risk Adjusted Performance Measurement Policy - Group Remuneration Policy - Group Environmental and Social Policy - Group Continuous Disclosure Policy - Group Public Disclosure of Prudential Information Policy - Group External Engagement and Communication Policy - Group Policy on Publicly Issued Documents and Marketing Materials - Group Delivery Framework and Policy	Strategic Risk Management Framework The Strategic Risk Management Framework considers the impact to the Group's strategy of dynamically evolving material current and emerging risks arising from changes in areas such as: the competitive landscape, emerging technologies, macroeconomic conditions, the regulatory and political environment, and changes in social expectations. The Group assesses, monitors and responds to strategic risk throughout its processes of: - Strategy development, approval and review; - Identifying and monitoring changes and potential changes to the operating environment; and - Monitoring execution progress of strategies. Capital Adequacy Risk - Capital advice for projects and funding deals; - Dividend decision and management processes; - Capital monitoring, reporting and forecasting; - Internal Capital Adequacy Assessment Process (ICAAP); - Group, portfolio and risk type stress testing; and - Ratings agency interactions. Capability and Culture Risk - Talent acquisition processes; - Leadership development initiatives; - Organisational culture development initiatives; - Performance and remuneration processes; - Inclusion and Diversity initiatives; - Capability development and training; and - Accountability frameworks.
The strategic risk type also includes the following sub-risk types that support or drive strategic decisions but are managed more routinely through their own dedicated governance, policies and procedures, infrastructure and teams:	Capital Adequacy Risk: Inability to capitalise on strategic opportunities or withstand extreme events due to insufficient or inefficient use of capital. Capability and Culture Risk: Inability to execute effectively on strategy due to inadequate organisational skills and capabilities and a misaligned organisational culture. Environmental and Social Risk: from the physical impacts of climate change or not understanding or meeting community or regulatory expectations in relation to environmental and social issues. Reputation Risk: Business practices, behaviours or events negatively impact the Group's reputation. Investment Allocation and Delivery Risk: Expected outcomes not achieved or missed strategic opportunities due to variations in the delivery (scope, timing and quality) of change initiatives.	

Risk Management (continued)

Material Risk Types (continued)

Description	Governing Policies and Key Management Committees	Key Controls and Risk Mitigation Strategies
Strategic Risk (continued)		
	Key Management Committees: - Executive Leadership Team (ELT) - ELT Environmental and Social Committee - Asset and Liability Committee (ALCO) - Non-Financial Risk Committee - ELT Risk and Remuneration Review Committee (RRRC)	Environmental and Social Risk - Scenario analyses to understand the physical and transition risks of climate change; - Development of new pilot products and services that support reduced emissions; - Environmental, Social and Governance (ESG) lending tool applied to certain lending decisions; - Corporate Responsibility programs; and - Supplier Code of Conduct to ensure adherence to CBA's Environmental and Social (E&S) standards. Reputation Risk - Media management, marketing and branding standards, processes and protocols; - Community investment initiatives; - Government and political affairs protocols; and - Strategic decisions to address actual or perceived material conduct risks. Investment Allocation and Delivery Risk - Group and BU Change Investment Process; - Group Delivery Framework development and maintenance; and - Project/program reporting and governance.

Credit Risk

8

Credit Risk

Credit risk is the potential of loss arising from failure of a borrower 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 six 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 borrowers to meet their contractual obligations for repayment, acceptable forms of collateral and security and the frequency of credit reviews.

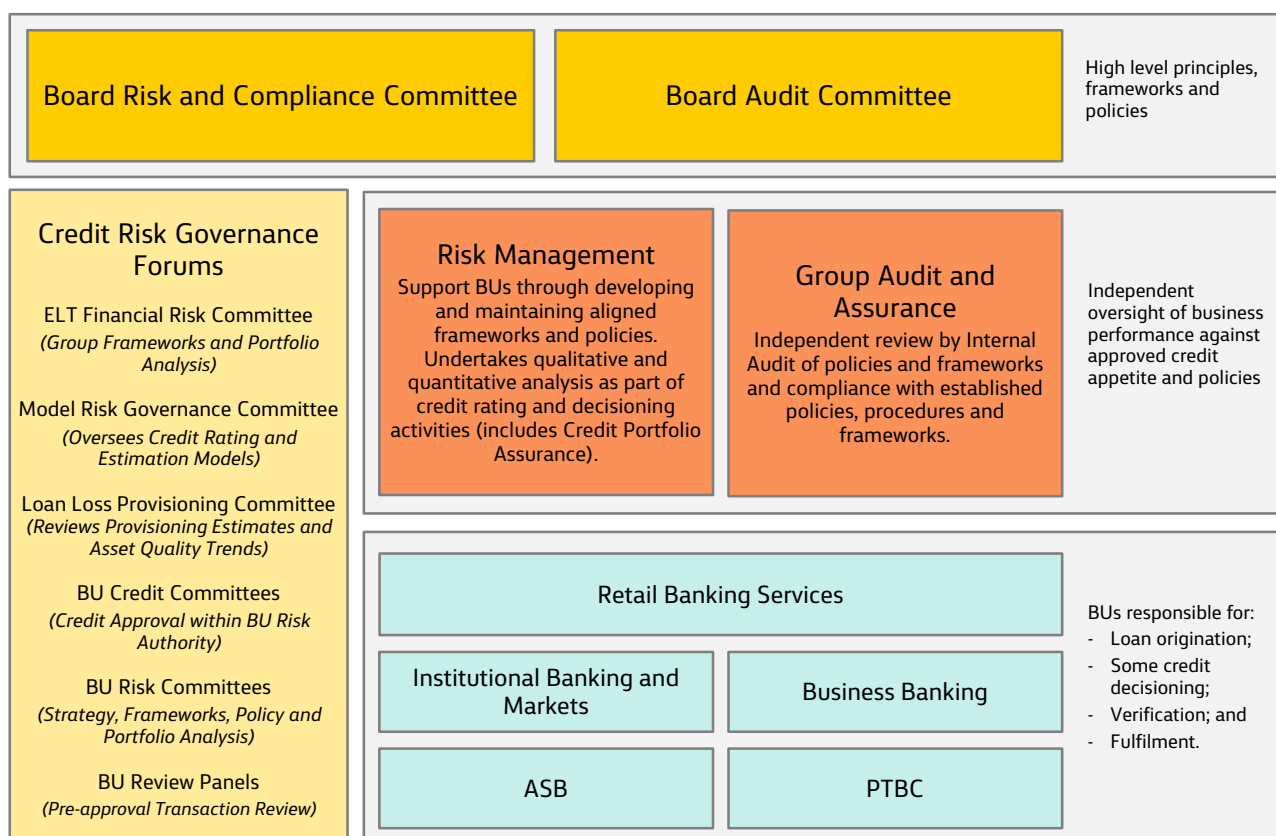
The Group's RAS requires that there is appropriate diversification of credit risk. This is achieved through established policies that include limits for the key dimensions of the credit portfolio for:

- Individual borrowers, or groups of related borrowers;
- 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 Operational Risk, Assurance and Models, 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 ELT FRC 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 Credit Risk Exposure – excluding Equities and Securitisation

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

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

Portfolio Type	30 June 2022				Average exposure for June 2022 half ¹	Change in exposure for June 2022 half ²	
	On Balance Sheet	Off Balance Sheet	Non-market related	Market related			
	\$M	\$M	\$M	\$M	\$M	\$M	%
Subject to AIRB approach							
Corporate	79,887	45,713	10,200	135,800	133,089	5,422	4.2
SME corporate	49,488	10,337	633	60,458	59,853	1,209	2.0
SME retail	7,258	3,466	4	10,728	10,743	(30)	(0.3)
SME retail secured by residential mortgage	3,494	1,443	–	4,937	5,015	(155)	(3.0)
Sovereign	210,016	1,116	5,520	216,652	208,260	16,785	8.4
Bank	12,413	438	7,532	20,383	20,204	359	1.8
Residential mortgage	604,509	81,413	–	685,922	681,170	9,502	1.4
Qualifying revolving retail	7,808	15,585	–	23,393	23,473	(160)	(0.7)
Other retail	6,252	2,560	–	8,812	9,181	(739)	(7.7)
Total AIRB approach	981,125	162,071	23,889	1,167,085	1,150,988	32,193	2.8
Specialised lending	64,041	12,409	487	76,937	76,505	865	1.1
Subject to standardised approach							
Corporate	346	147	14	507	898	(782)	(60.7)
SME corporate	393	177	3	573	607	(67)	(10.5)
SME retail	1,580	577	6	2,163	2,222	(120)	(5.3)
Sovereign	640	1	–	641	3,145	(5,010)	(88.7)
Bank	211	12	–	223	227	(8)	(3.5)
Residential mortgage	13,394	1,908	–	15,302	15,140	325	2.2
Other retail	914	154	–	1,068	1,015	107	11.1
Other assets	15,463	–	–	15,463	17,606	(4,285)	(21.7)
Central counterparties	–	–	10,963	10,963	10,407	1,113	11.3
Total standardised approach	32,941	2,976	10,986	46,903	51,267	(8,727)	(15.7)
Total Credit Exposures ³	1,078,107	177,456	35,362	1,290,925	1,278,760	24,331	1.9

¹ The simple average of balances as at 30 June 2022 and 31 December 2021.

² The difference between exposures as at 30 June 2022 and 31 December 2021.

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	7,311	Volume growth across most portfolios; partly offset by foreign exchange rate (FX) movements
AIRB sovereign	16,785	Increase in liquid assets held with central banks and methodology changes; partly offset by FX movements
AIRB bank	359	Increase in liquid assets held with banks
AIRB consumer retail	8,603	Volume growth in residential mortgages; partly offset by methodology changes, FX movements and lower consumer retail portfolios
Total advanced and specialised lending	33,058	
Standardised (including other assets and central counterparties)	(8,727)	Lower volumes of other assets and methodology changes (including CBA Europe N.V. moving to IRB approach)
Total (excluding securitisation and equity exposures)	24,331	

Credit Risk (continued)

8.1 Credit Risk Exposure – excluding Equities and Securitisation (continued)

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

Portfolio Type	31 December 2021				Average exposure for December 2021 half ¹	Change in exposure for December 2021 half ²	
	On Balance Sheet	Off Balance Sheet	Non-market related	Market related			
	\$M	\$M	\$M	\$M	\$M	\$M	%
Subject to AIRB approach							
Corporate	74,275	47,576	8,527	130,378	125,657	9,441	7. 8
SME corporate	47,000	11,513	736	59,249	57,994	2,509	4. 4
SME retail	7,087	3,667	4	10,758	10,977	(439)	(3. 9)
SME retail secured by residential mortgage	3,509	1,583	–	5,092	5,159	(134)	(2. 6)
Sovereign	195,792	1,278	2,797	199,867	192,826	14,083	7. 6
Bank	13,264	419	6,341	20,024	21,234	(2,419)	(10. 8)
Residential mortgage	590,651	85,769	–	676,420	662,184	28,473	4. 4
Qualifying revolving retail	7,843	15,710	–	23,553	23,800	(494)	(2. 1)
Other retail	6,180	3,371	–	9,551	9,504	95	1. 0
Total AIRB approach	945,601	170,886	18,405	1,134,892	1,109,335	51,115	4. 7
Specialised lending	62,328	12,539	1,205	76,072	74,955	2,232	3. 0
Subject to standardised approach							
Corporate	997	289	3	1,289	1,262	55	4. 5
SME corporate	457	183	–	640	723	(165)	(20. 5)
SME retail	1,663	613	7	2,283	2,385	(203)	(8. 2)
Sovereign	5,650	1	–	5,651	3,329	4,644	large
Bank	231	–	–	231	238	(14)	(5. 7)
Residential mortgage	13,062	1,915	–	14,977	14,994	(35)	(0. 2)
Other retail	847	114	–	961	944	34	3. 7
Other assets	19,748	–	–	19,748	19,401	692	3. 6
Central counterparties	–	–	9,850	9,850	10,066	(431)	(4. 2)
Total standardised approach	42,655	3,115	9,860	55,630	53,342	4,577	9. 0
Total credit exposures ³	1,050,584	186,540	29,470	1,266,594	1,237,632	57,924	4. 8

¹ The simple average of balances as at 31 December 2021 and 30 June 2021.

² The difference between exposures as at 31 December 2021 and 30 June 2021.

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

Credit Risk (continued)

8.1 Credit Risk Exposure – excluding Equities and Securitisation (continued)

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

Portfolio Type	30 June 2021				Average exposure for June 2021 half ¹	Change in exposure for June 2021 half ²	
	On Balance Sheet	Non-market related	Market related	Total			
	\$M	\$M	\$M	\$M		\$M	\$M
Subject to AIRB approach							
Corporate	64,843	46,013	10,081	120,937	122,315	(2,756)	(2. 2)
SME corporate	45,865	10,033	842	56,740	55,576	2,328	4. 3
SME retail	7,215	3,977	5	11,197	11,399	(404)	(3. 5)
SME retail secured by residential mortgage	3,675	1,551	—	5,226	5,265	(78)	(1. 5)
Sovereign	182,245	1,290	2,249	185,784	162,628	46,312	33. 2
Bank	15,480	398	6,565	22,443	23,580	(2,273)	(9. 2)
Residential mortgage	563,914	84,033	—	647,947	635,878	24,137	3. 9
Qualifying revolving retail	7,865	16,182	—	24,047	24,337	(579)	(2. 4)
Other retail	6,517	2,939	—	9,456	9,570	(228)	(2. 4)
Total AIRB approach	897,619	166,416	19,742	1,083,777	1,050,548	66,459	6. 5
Specialised lending	62,032	10,120	1,688	73,840	71,268	5,143	7. 5
Subject to standardised approach							
Corporate	961	273	—	1,234	1,214	40	3. 4
SME corporate	563	242	—	805	779	53	7. 0
SME retail	1,831	648	7	2,486	2,570	(168)	(6. 3)
Sovereign	1,006	1	—	1,007	801	412	69. 2
Bank	245	—	—	245	455	(421)	(63. 2)
Residential mortgage	13,092	1,920	—	15,012	14,892	241	1. 6
Other retail	876	51	—	927	965	(77)	(7. 7)
Other assets	19,056	—	—	19,056	21,232	(4,352)	(18. 6)
Central counterparties	—	—	10,281	10,281	10,461	(360)	(3. 4)
Total standardised approach	37,630	3,135	10,288	51,053	53,369	(4,632)	(8. 3)
Total credit exposures ³	997,281	179,671	31,718	1,208,670	1,175,185	66,970	5. 9

¹ The simple average of balances as at 30 June 2021 and 31 December 2020.

² The difference between exposures as at 30 June 2021 and 31 December 2020.

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

Credit Risk (continued)

8.1 Credit Risk Exposure – excluding Equities and Securitisation (continued)

Table 7b – Credit risk exposure by portfolio type

Portfolio Type	As at 30 Jun 22 \$M	Half year average ¹ \$M
Corporate	136,307	133,987
SME corporate	61,031	60,460
SME retail	12,891	12,965
SME retail secured by residential mortgage	4,937	5,015
Sovereign	217,293	211,405
Bank	20,606	20,431
Residential mortgage	701,224	696,310
Qualifying revolving retail	23,393	23,473
Other retail	9,880	10,196
Specialised lending	76,937	76,505
Other assets	15,463	17,606
Central counterparties	10,963	10,407
Total credit exposures ²	1,290,925	1,278,760

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

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

Portfolio Type	As at 31 Dec 21 \$M	Half year average ¹ \$M
Corporate	131,667	126,919
SME corporate	59,889	58,717
SME retail	13,041	13,362
SME retail secured by residential mortgage	5,092	5,159
Sovereign	205,518	196,155
Bank	20,255	21,472
Residential mortgage	691,397	677,178
Qualifying revolving retail	23,553	23,800
Other retail	10,512	10,448
Specialised lending	76,072	74,955
Other assets	19,748	19,401
Central counterparties	9,850	10,066
Total credit exposures ²	1,266,594	1,237,632

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

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

Portfolio Type	As at 30 Jun 21 \$M	Half year average ¹ \$M
Corporate	122,171	123,529
SME corporate	57,545	56,355
SME retail	13,683	13,969
SME retail secured by residential mortgage	5,226	5,265
Sovereign	186,791	163,429
Bank	22,688	24,035
Residential mortgage	662,959	650,770
Qualifying revolving retail	24,047	24,337
Other retail	10,383	10,535
Specialised lending	73,840	71,268
Other assets	19,056	21,232
Central counterparties	10,281	10,461
Total credit exposures ²	1,208,670	1,175,185

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)

8.1 Credit Risk Exposure – excluding Equities and Securitisation (continued)

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

Portfolio Type	30 June 2022 ¹			
	Australia \$M	New Zealand \$M	Other \$M	Total \$M
Corporate	92,738	13,545	30,024	136,307
SME corporate	46,064	14,587	380	61,031
SME retail ²	16,170	1,551	107	17,828
Sovereign	160,314	11,603	45,376	217,293
Bank	6,500	1,809	12,297	20,606
Residential mortgage	625,645	74,623	956	701,224
Qualifying revolving retail	23,392	–	1	23,393
Other retail	7,081	2,385	414	9,880
Specialised lending	64,334	10,022	2,581	76,937
Other assets	12,044	828	2,591	15,463
Central counterparties	392	–	10,571	10,963
Total credit exposures ³	1,054,674	130,953	105,298	1,290,925

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.

Portfolio Type	31 December 2021 ¹			
	Australia \$M	New Zealand \$M	Other \$M	Total \$M
Corporate	87,781	13,475	30,411	131,667
SME corporate	44,159	15,330	400	59,889
SME retail ²	16,350	1,670	113	18,133
Sovereign	151,192	9,474	44,852	205,518
Bank	8,440	2,014	9,801	20,255
Residential mortgage	614,965	75,389	1,043	691,397
Qualifying revolving retail	23,552	–	1	23,553
Other retail	6,988	3,200	324	10,512
Specialised lending	62,331	10,259	3,482	76,072
Other assets	17,970	896	882	19,748
Central counterparties	242	–	9,608	9,850
Total credit exposures ³	1,033,970	131,707	100,917	1,266,594

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.

Portfolio Type	30 June 2021 ¹			
	Australia \$M	New Zealand \$M	Other \$M	Total \$M
Corporate	82,265	11,609	28,297	122,171
SME corporate	41,641	15,120	784	57,545
SME retail ²	16,967	1,822	120	18,909
Sovereign	140,052	7,347	39,392	186,791
Bank	10,003	1,807	10,878	22,688
Residential mortgage	589,610	72,215	1,134	662,959
Qualifying revolving retail	24,045	–	2	24,047
Other retail	6,767	3,318	298	10,383
Specialised lending	59,871	10,504	3,465	73,840
Other assets	17,367	841	848	19,056
Central counterparties	547	–	9,734	10,281
Total credit exposures ³	989,135	124,583	94,952	1,208,670

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)

8.1 Credit Risk Exposure – excluding Equities and Securitisation (continued)

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

Portfolio Type	30 June 2022							
	Industry Sector							
	Consumer \$M	Finance & Insurance \$M	Business Services \$M	Agriculture & Forestry \$M	Construction \$M	Mining, Oil & Gas \$M	Wholesale & Retail Trade \$M	Transport & Storage \$M
Corporate	–	32,487	5,958	6,047	3,948	6,277	13,748	17,239
SME corporate	–	1,683	4,696	19,686	3,993	338	9,100	2,527
SME retail ¹	–	356	1,696	1,668	2,350	99	2,418	1,000
Sovereign	–	–	–	–	–	–	–	–
Bank	–	20,606	–	–	–	–	–	–
Residential mortgage	701,224	–	–	–	–	–	–	–
Qualifying revolving retail	23,393	–	–	–	–	–	–	–
Other retail	9,880	–	–	–	–	–	–	–
Specialised lending	–	–	2	6	–	931	247	1,986
Other assets	2,310	–	–	–	–	–	–	–
Central counterparties	–	10,963	–	–	–	–	–	–
Total credit exposures ²	736,807	66,095	12,352	27,407	10,291	7,645	25,513	22,752

Portfolio Type	Industry Sector (continued)							
	Manufacturing	Commercial Property ³	Government Admin. & Defence	Health & Community Services	Entertainment Leisure & Tourism	Electricity Gas & Water	Other	Total
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Corporate	11,122	12,094	–	7,362	5,313	6,983	7,729	136,307
SME corporate	3,917	294	–	4,408	6,558	240	3,591	61,031
SME retail ¹	928	1,515	–	792	977	43	3,986	17,828
Sovereign	–	–	217,293	–	–	–	–	217,293
Bank	–	–	–	–	–	–	–	20,606
Residential mortgage	–	–	–	–	–	–	–	701,224
Qualifying revolving retail	–	–	–	–	–	–	–	23,393
Other retail	–	–	–	–	–	–	–	9,880
Specialised lending	53	70,144	–	170	633	2,613	152	76,937
Other assets	–	–	–	–	–	–	13,153	15,463
Central counterparties	–	–	–	–	–	–	–	10,963
Total credit exposures ²	16,020	84,047	217,293	12,732	13,481	9,879	28,611	1,290,925

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

Credit Risk (continued)

8.1 Credit Risk Exposure – excluding Equities and Securitisation (continued)

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

Portfolio Type	31 December 2021 ¹							
	Industry Sector							
	Consumer \$M	Finance & Insurance \$M	Business Services \$M	Agriculture & Forestry \$M	Construction \$M	Mining, Oil & Gas \$M	Wholesale & Retail Trade \$M	Transport & Storage \$M
Corporate	–	31,083	5,312	5,054	3,582	5,383	12,650	18,741
SME corporate	–	1,654	4,557	19,822	3,797	266	8,904	2,590
SME retail ²	–	363	1,696	1,758	2,347	102	2,447	997
Sovereign	–	–	–	–	–	–	–	–
Bank	–	20,255	–	–	–	–	–	–
Residential mortgage	691,397	–	–	–	–	–	–	–
Qualifying revolving retail	23,553	–	–	–	–	–	–	–
Other retail	10,512	–	–	–	–	–	–	–
Specialised lending	–	13	–	7	–	1,260	251	1,808
Other assets	2,438	–	–	–	–	–	–	–
Central counterparties	–	9,850	–	–	–	–	–	–
Total credit exposures ³	727,900	63,218	11,565	26,641	9,726	7,011	24,252	24,136

Portfolio Type	Industry Sector (continued)							
	Manufacturing	Commercial Property ⁴	Government Admin. & Defence	Health & Community Services	Entertainment Leisure & Tourism	Electricity Gas & Water	Other	Total
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Corporate	11,651	11,080	–	6,592	5,481	7,163	7,895	131,667
SME corporate	3,699	214	–	4,283	6,365	116	3,622	59,889
SME retail ²	934	1,614	–	787	989	43	4,056	18,133
Sovereign	–	–	205,518	–	–	–	–	205,518
Bank	–	–	–	–	–	–	–	20,255
Residential mortgage	–	–	–	–	–	–	–	691,397
Qualifying revolving retail	–	–	–	–	–	–	–	23,553
Other retail	–	–	–	–	–	–	–	10,512
Specialised lending	17	68,689	–	169	669	2,982	207	76,072
Other assets	–	–	–	–	–	–	17,310	19,748
Central counterparties	–	–	–	–	–	–	–	9,850
Total credit exposures ³	16,301	81,597	205,518	11,831	13,504	10,304	33,090	1,266,594

¹ Comparative information has been restated to conform to presentation in the current period.

² SME retail business lending secured by residential property has been allocated by industry.

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

⁴ Commercial Property includes Real Estate Investment Trusts (REIT) and excludes Business Services.

Credit Risk (continued)

8.1 Credit Risk Exposure – excluding Equities and Securitisation (continued)

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

Portfolio Type	30 June 2021 ¹							
	Industry Sector							
	Consumer \$M	Finance & Insurance \$M	Business Services \$M	Agriculture & Forestry \$M	Construction \$M	Mining, Oil & Gas \$M	Wholesale & Retail Trade \$M	Transport & Storage \$M
Corporate	–	26,590	4,891	3,896	3,308	5,764	11,192	19,094
SME corporate	–	2,193	4,279	19,378	3,496	305	8,334	2,413
SME retail ²	–	379	1,686	1,801	2,335	101	2,557	982
Sovereign	–	–	–	–	–	–	–	–
Bank	–	22,688	–	–	–	–	–	–
Residential mortgage	662,959	–	–	–	–	–	–	–
Qualifying revolving retail	24,047	–	–	–	–	–	–	–
Other retail	10,383	–	–	–	–	–	–	–
Specialised lending	–	8	–	–	–	1,340	222	2,708
Other assets	2,253	–	–	–	–	–	–	–
Central counterparties	–	10,281	–	–	–	–	–	–
Total credit exposures ³	699,642	62,139	10,856	25,075	9,139	7,510	22,305	25,197

Portfolio Type	Industry Sector (continued)							
	Manufacturing \$M	Commercial Property ⁴ \$M	Government Admin. & Defence \$M	Health & Community Services \$M	Entertainment Leisure & Tourism \$M	Electricity Gas & Water \$M	Other \$M	Total \$M
Corporate	10,534	10,057	–	5,760	4,798	8,067	8,220	122,171
SME corporate	3,472	323	–	3,780	6,080	139	3,353	57,545
SME retail ²	956	1,732	–	792	1,028	46	4,514	18,909
Sovereign	–	–	186,791	–	–	–	–	186,791
Bank	–	–	–	–	–	–	–	22,688
Residential mortgage	–	–	–	–	–	–	–	662,959
Qualifying revolving retail	–	–	–	–	–	–	–	24,047
Other retail	–	–	–	–	–	–	–	10,383
Specialised lending	53	65,290	–	137	642	2,989	451	73,840
Other assets	–	–	–	–	–	–	16,803	19,056
Central counterparties	–	–	–	–	–	–	–	10,281
Total credit exposures ³	15,015	77,402	186,791	10,469	12,548	11,241	33,341	1,208,670

¹ Comparative information has been restated to conform to presentation in the current period.

² SME retail business lending secured by residential property has been allocated by industry.

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

⁴ Commercial Property includes Real Estate Investment Trusts (REIT) and excludes Business Services.

Credit Risk (continued)

8.1 Credit Risk Exposure – excluding Equities and Securitisation (continued)

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

Portfolio Type	30 June 2022				Total \$M
	≤ 12mths \$M	1 ≤ 5yrs \$M	> 5 years \$M	No specified maturity \$M	
Corporate	52,947	75,219	8,141	–	136,307
SME corporate	19,816	37,018	4,197	–	61,031
SME retail ¹	6,434	6,319	5,075	–	17,828
Sovereign	150,991	31,459	34,843	–	217,293
Bank	12,029	7,288	1,289	–	20,606
Residential mortgage	28,869	81,624	561,669	29,062	701,224
Qualifying revolving retail	–	–	–	23,393	23,393
Other retail	278	4,282	2,113	3,207	9,880
Specialised lending	22,926	50,900	3,111	–	76,937
Other assets	2,356	1,859	339	10,909	15,463
Central counterparties	5,444	4,021	1,498	–	10,963
Total credit exposures ²	302,090	299,989	622,275	66,571	1,290,925

¹ Including SME retail secured by residential property.

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

Portfolio Type	31 December 2021				Total \$M
	≤ 12mths \$M	1 ≤ 5yrs \$M	> 5 years \$M	No specified maturity \$M	
Corporate	51,284	73,216	7,167	–	131,667
SME corporate	20,424	35,173	4,292	–	59,889
SME retail ¹	6,540	6,625	4,968	–	18,133
Sovereign	138,472	32,220	34,826	–	205,518
Bank	10,038	9,272	945	–	20,255
Residential mortgage	28,880	78,854	553,316	30,347	691,397
Qualifying revolving retail	–	–	–	23,553	23,553
Other retail	259	4,330	1,949	3,974	10,512
Specialised lending	23,588	48,434	4,050	–	76,072
Other assets	2,479	453	292	16,524	19,748
Central counterparties	3,963	5,422	465	–	9,850
Total credit exposures ²	285,927	293,999	612,270	74,398	1,266,594

¹ Including SME retail secured by residential property.

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

Portfolio Type	30 June 2021				Total \$M
	≤ 12mths \$M	1 ≤ 5yrs \$M	> 5 years \$M	No specified maturity \$M	
Corporate	44,107	71,441	6,623	–	122,171
SME corporate	20,758	33,514	3,273	–	57,545
SME retail ¹	6,762	7,615	4,532	–	18,909
Sovereign	114,530	37,231	35,030	–	186,791
Bank	10,271	11,690	727	–	22,688
Residential mortgage	30,241	85,675	514,996	32,047	662,959
Qualifying revolving retail	–	–	–	24,047	24,047
Other retail	279	4,359	1,832	3,913	10,383
Specialised lending	23,647	44,676	5,517	–	73,840
Other assets	2,411	198	339	16,108	19,056
Central counterparties	3,732	5,512	1,037	–	10,281
Total credit exposures ²	256,738	301,911	573,906	76,115	1,208,670

¹ Including SME retail secured by residential property.

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

Credit Risk (continued)

8.2 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 impairment expense and provisions.

From 1 January 2022 the Group adopted APRA's revised APS 220 *Credit Risk Management*. The revised standard no longer includes requirements in relation to impaired assets, specific provisions or the General Reserve for Credit Losses (GRCL). However, the Group will continue to disclose these items until such time as the requirements of APS 330 are changed to retire the former standard's disclosure requirements relating to impaired assets, specific provisions and GRCL.

APS 111 *Capital Adequacy: Measurement of Capital* (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: Home Loans model, Credit Cards model, Personal Loans model; and
- Non-retail lending: Corporate Risk Rated model, Asset Finance model, Retail SME model.

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

- 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;

- Probability of default (PD): The likelihood that a borrower 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; 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 8.4.

Individually Assessed Provisions

Individually Assessed Provisions (IAP) 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 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

In accordance with the former APS 220 *Credit Quality*, all provisions for impairment that are assessed on an individual basis in accordance with Australian Accounting Standards are classified as specific provisions. 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.

The Group's GRCL methodology is 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.

The Group's GRCL methodology results in an amount lower than the provision recognised for accounting purposes, resulting in no additional GRCL requirement.

Credit Risk (continued)

8.2 Past Due and Impaired Exposures, Provisions and Reserves (continued)

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

	30 June 2022		
	General reserve for credit losses	Specific provision ¹	Total provisions
	\$M	\$M	\$M
Collective provision ²	4,033	578	4,611
Individual provisions ²	–	736	736
Total regulatory provisions	4,033	1,314	5,347

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

2 Provisions according to Australian Accounting Standards.

	31 December 2021		
	General reserve for credit losses ¹	Specific provision ¹	Total provisions
	\$M	\$M	\$M
Collective provision ²	4,567	495	5,062
Individual provisions ²	–	792	792
Total regulatory provisions	4,567	1,287	5,854

1 Provisions classified according to APS 220 *Credit Quality*.

2 Provisions according to Australian Accounting Standards.

	30 June 2021		
	General reserve for credit losses ¹	Specific provision ¹	Total provisions
	\$M	\$M	\$M
Collective provision ²	4,683	628	5,311
Individual provisions ²	–	900	900
Total regulatory provisions	4,683	1,528	6,211

1 Provisions classified according to APS 220 *Credit Quality*.

2 Provisions according to Australian Accounting Standards.

Credit Risk (continued)

8.2 Past Due and Impaired Exposures, Provisions and Reserves (continued)

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

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

Industry Sector	30 June 2022				
	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
Consumer	1,871	2,562	689	(20)	248
Government Administration & Defence	–	–	–	–	–
Finance & Insurance	30	5	3	–	3
Business Services	92	37	54	14	27
Agriculture & Forestry	161	112	47	(1)	26
Mining, Oil & Gas	57	1	36	21	15
Manufacturing	185	21	162	67	83
Electricity, Gas & Water	–	1	–	4	4
Construction	75	26	33	9	9
Wholesale & Retail Trade	147	55	110	12	27
Transport & Storage	98	73	29	19	33
Commercial Property	33	83	20	(2)	48
Entertainment, Leisure & Tourism	106	68	62	15	12
Health & Community Services	6	29	1	1	–
Other	90	80	68	10	23
Total	2,951	3,153	1,314	149	558

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 2022.

Industry Sector	31 December 2021				
	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
Consumer	2,061	2,603	620	(10)	136
Government Administration & Defence	–	–	–	–	–
Finance & Insurance	23	3	3	–	1
Business Services	119	61	70	6	7
Agriculture & Forestry	217	96	74	3	2
Mining, Oil & Gas	85	2	37	10	–
Manufacturing	249	31	137	17	54
Electricity, Gas & Water	74	43	17	17	–
Construction	66	29	28	2	8
Wholesale & Retail Trade	139	69	107	10	22
Transport & Storage	161	131	36	20	32
Commercial Property	35	96	21	(2)	46
Entertainment, Leisure & Tourism	110	72	59	7	6
Health & Community Services	3	18	1	–	–
Other	140	90	77	6	12
Total	3,482	3,344	1,287	86	326

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 2021.

Credit Risk (continued)

8.2 Past Due and Impaired Exposures, Provisions and Reserves (continued)

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

Industry Sector	30 June 2021				
	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
Consumer	1,927	3,045	777	20	450
Government Administration & Defence	–	–	–	–	–
Finance & Insurance	6	5	3	(1)	4
Business Services	132	37	69	28	20
Agriculture & Forestry	237	95	73	12	16
Mining, Oil & Gas	57	2	31	(12)	–
Manufacturing	289	24	186	84	99
Electricity, Gas & Water	–	5	–	–	–
Construction	94	30	39	(2)	10
Wholesale and Retail Trade	189	86	122	83	37
Transport & Storage	182	36	54	29	36
Commercial Property	84	197	66	6	5
Entertainment, Leisure & Tourism	123	87	58	7	9
Health & Community Services	3	11	1	1	–
Other	86	100	49	11	42
Total	3,409	3,760	1,528	266	728

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 2021.

Factors impacting the loss experience

The overall quality of the portfolio improved during the financial year ended 30 June 2022. Gross impaired assets as a proportion of gross loans and advances (GLAAs) decreased by 9 basis points during the financial year ended 30 June 2022. Total provisions as a proportion of GLAAs decreased by 16 basis points to 0.60%. The decrease reflected a reduction in collective provisions, driven by reduced uncertainties of COVID-19 as well as lower individual provisions. This was partly offset by increased forward-looking adjustments and overlays mainly to account for emerging risks. Group actual losses decreased by \$170 million on the prior year mainly due to lower write offs in the consumer portfolios.

Credit Risk (continued)

8.2 Past Due and Impaired Exposures, Provisions and Reserves (continued)

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

Portfolio	30 June 2022				
	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
Corporate including SME, specialised lending and central counterparties	1,080	591	625	169	310
Sovereign	–	–	–	–	–
Bank	–	–	–	–	–
Residential mortgage	1,713	2,562	544	(23)	38
Credit cards	66	–	66	–	80
Other retail	92	–	79	3	130
Total	2,951	3,153	1,314	149	558

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 2022.

Portfolio	31 December 2021				
	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
Corporate including SME, specialised lending and central counterparties	1,421	741	666	96	190
Sovereign	–	–	–	–	–
Bank	–	–	–	–	–
Residential mortgage	1,902	2,603	477	(11)	22
Credit cards	66	–	58	–	44
Other retail	93	–	86	1	70
Total	3,482	3,344	1,287	86	326

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 2021.

Portfolio	30 June 2021				
	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
Corporate including SME, specialised lending and central counterparties	1,482	715	751	246	278
Sovereign	–	–	–	–	–
Bank	–	–	–	–	–
Residential mortgage	1,746	3,045	598	14	63
Credit cards	82	–	80	(3)	172
Other retail	99	–	99	9	215
Total	3,409	3,760	1,528	266	728

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 2021.

Credit Risk (continued)

8.2 Past Due and Impaired Exposures, Provisions and Reserves (continued)

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

Geographic Region ¹	30 June 2022		
	Impaired assets	Past due loans ≥ 90 days ²	Specific provision balance
	\$M	\$M	\$M
Australia	1,957	2,977	1,012
New Zealand	719	120	138
Other	275	56	164
Total	2,951	3,153	1,314

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.

Geographic Region ¹	31 December 2021		
	Impaired assets	Past due loans ≥ 90 days ²	Specific provision balance
	\$M	\$M	\$M
Australia	2,247	3,083	1,032
New Zealand	908	106	148
Other	327	155	107
Total	3,482	3,344	1,287

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.

Geographic Region ¹	30 June 2021		
	Impaired assets	Past due loans ≥ 90 days ²	Specific provision balance
	\$M	\$M	\$M
Australia	2,178	3,585	1,227
New Zealand	849	131	152
Other	382	44	149
Total	3,409	3,760	1,528

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:

Table 7g (ii) – GRCL by geographic region

Geographic Region	30 Jun 22 \$M	31 Dec 21 \$M	30 Jun 21 \$M
Australia	3,452	3,958	3,992
New Zealand	367	331	368
Other	214	278	323
Total GRCL	4,033	4,567	4,683

Credit Risk (continued)

8.2 Past Due and Impaired Exposures, Provisions and Reserves (continued)

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

	Half Year Ended		
	30 Jun 22	31 Dec 21	30 Jun 21
	\$M	\$M	\$M
Movement in Collective Provisions			
Opening balance	5,062	5,311	5,943
Net charge against profit and loss	(345)	(161)	(481)
Recoveries	60	67	62
Other	(11)	33	23
Write-offs	(155)	(188)	(236)
Total collective provisions	4,611	5,062	5,311
Less collective provisions transferred to specific provisions	(578)	(495)	(628)
General reserve for credit losses	4,033	4,567	4,683

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

	Half Year Ended		
	30 Jun 22	31 Dec 21	30 Jun 21
	\$M	\$M	\$M
Movement in Individual Provisions			
Opening balance for the period	792	900	872
Net new and increased provisioning	145	176	260
Net write back of provisions no longer required	(82)	(90)	(107)
Discount unwind to interest income	(3)	(8)	(9)
Other	21	19	5
Write-offs	(137)	(205)	(121)
Total individual provisions	736	792	900
Add collective provisions transferred to specific provisions	578	495	628
Specific provisions	1,314	1,287	1,528

Credit Risk (continued)

8.3 Portfolios Subject to Standardised and Supervisory Risk Weights

The standardised approach is used by the Group where portfolios or segments are considered to be 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;
- Central counterparties.

ASB:

- Personal loans and Retail SME.

Bankwest:

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

All exposures in PTBC.

CBA Europe N.V. applied the standardised approach to all exposures until March 2022. Comparative prior period information has therefore been provided using the standardised approach for this entity.

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 leased under operating leases on the Balance Sheet. The residual value of the asset is risk weighted at 100% and the net present value of the lease payment stream is risk weighted based on the internal risk rating of the lessee (APS 113).

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

Standardised Approach Exposures	Exposure after credit risk mitigation ¹		
	30 Jun 22 \$M	31 Dec 21 \$M	30 Jun 21 \$M
Risk Weight			
0%	3,258	14,169	8,865
20%	5,118	3,380	3,509
35%	11,335	10,677	10,354
50%	3,336	3,676	3,725
75%	660	674	729
100%	12,201	13,168	13,539
150%	32	34	51
> 150%	–	2	–
Capital deductions	–	–	–
Total	35,940	45,780	40,772

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

Specialised Lending Exposures Subject to Supervisory Slotting ¹	30 Jun 22 \$M	31 Dec 21 \$M	30 Jun 21 \$M
Risk Weight			
0%	358	425	455
70%	20,986	22,666	23,669
90%	49,149	46,669	43,255
115%	5,894	5,794	5,885
250%	550	518	576
Total exposures	76,937	76,072	73,840

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)

8.4 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 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 PD Rating Models to calculate AIRB credit risk estimates, including borrower 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 population of customers assigned that PD grade that will default within a one year period. It reflects a borrower'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 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).

Borrowers that are risk-rated have their PD rating assigned via expert judgement and the appropriate PD Rating Model. Borrowers 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 Models, the ratings assigned by an external rating agency, benchmark rating criteria, management capability and integrity, market or other relevant information.

PD Rating Models 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 Banking BUs across the Group (including within CBA and ASB), PD Rating Models are the primary method of assigning a PD rating. PD Rating Models are statistical models designed to predict the rating outcome. 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 borrower'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 a borrower.

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 cash operating 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 financial commitments is diminished with a potential for default;
- 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 or non-performing assets; and
- Default – (H) – the obligation is in default (see below).

A borrower whose PD rating is "Weak/Doubtful" (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. Borrowers with all other PD ratings qualify for approval of new facilities or increased exposure on normal commercial terms. Assignments of borrower 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 a borrower comes to light.

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 to the Group; and/or
- Regardless of the days past-due, 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.

Credit Risk (continued)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

Probability of Default (continued)

The Group's mapping of internal rating scales for risk-rated exposures to external rating agencies is detailed in 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 borrowers 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-decisioned 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, SME corporate and SME retail customers, where collateral is provided as security, 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 greater than 0% and less than 40%.

Unsecured large corporate customers, banks and sovereigns receive an LGD rating of J to 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, secured/unsecured status 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 8.5 "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.

Expected Loss

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

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.

Credit Risk (continued)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

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

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:
 - a transactional level where long-run EL is factored into interest margins and fees; and
 - 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 approved model policies and standards to ensure independent validation and testing of assigned risk estimates.

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 B2
Weak/Doubtful	F1 to G3	>6.656%	B- to CC	B3 to Ca
Restructured	R	30.998%	-	-
Defaulted	H	100%	D	C

Table 9c – PD rating methodology by portfolio segment

Portfolio Segment	PD Rating Methodology
Sovereign exposures	Expert judgement assigned risk rating, informed but not driven by rating agency views.
Bank exposures	Combination of expert judgement and PD Rating Model assigned risk ratings.
Large corporate exposures	Combination of expert judgement and PD Rating Model assigned risk ratings depending on the industry sector.
SME corporate exposures	PD Rating Model and expert judgement assigned risk rating.
SME retail exposures	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)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

Credit Risk Exposure Subject to the AIRB Approach

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

	30 June 2022							
	PD Band							
	0 < 0.03%	0.03% < 0.15%	0.15% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	Total
Non-retail ¹	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total credit risk exposures								
Corporate	–	48,040	46,081	39,825	528	779	547	135,800
SME corporate	–	664	4,970	50,145	2,390	1,103	1,186	60,458
SME retail ²	–	–	1,492	10,452	2,982	475	264	15,665
Sovereign	199,543	16,623	455	31	–	–	–	216,652
Bank	–	19,860	511	12	–	–	–	20,383
Total	199,543	85,187	53,509	100,465	5,900	2,357	1,997	448,958
Undrawn commitments ³								
Corporate	–	16,125	17,795	11,430	193	107	63	45,713
SME corporate	–	117	1,147	8,610	284	112	67	10,337
SME retail ²	–	–	1,328	2,832	654	81	14	4,909
Sovereign	733	321	56	6	–	–	–	1,116
Bank	–	393	45	–	–	–	–	438
Total	733	16,956	20,371	22,878	1,131	300	144	62,513
Exposure - average EAD (\$M)								
Corporate	–	3.189	1.608	0.836	0.399	0.994	1.221	1.446
SME corporate	–	0.382	0.445	0.468	0.367	0.340	0.361	0.454
SME retail ²	–	–	0.086	0.067	0.045	0.086	0.076	0.063
Sovereign	14.053	17.279	0.993	0.768	–	–	–	13.828
Bank	–	1.688	0.390	0.224	–	–	–	1.552
Exposure - weighted average LGD (%)								
Corporate	–	55.8	45.9	37.3	43.5	37.7	53.4	46.9
SME corporate	–	53.2	27.2	25.7	28.0	29.2	27.5	26.3
SME retail ²	–	–	37.3	32.5	43.3	30.4	31.5	34.9
Sovereign	5.3	13.2	45.4	59.2	60.0	–	–	6.0
Bank	–	58.9	59.9	60.0	–	–	–	58.9
Exposure - weighted average risk weight (%) ⁴								
Corporate	–	26.2	51.9	76.2	156.2	210.7	58.3	51.3
SME corporate	–	22.5	27.4	46.2	76.7	134.0	140.2	49.1
SME retail ²	–	–	22.7	43.8	84.5	107.3	216.4	54.4
Sovereign	0.8	3.2	36.3	74.2	218.0	–	–	1.0
Bank	–	19.5	62.3	89.1	–	–	–	20.6

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.

Credit Risk (continued)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

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

	31 December 2021							
	PD Band							
	0 < 0.03%	0.03% < 0.15%	0.15% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	Total
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Non-retail ¹								
Total credit risk exposures								
Corporate	—	45,727	44,196	38,618	611	539	687	130,378
SME corporate	—	667	4,863	48,837	2,365	1,430	1,087	59,249
SME retail ²	—	—	1,538	10,508	3,070	493	241	15,850
Sovereign	178,398	20,820	635	11	3	—	—	199,867
Bank	—	19,610	398	16	—	—	—	20,024
Total	178,398	86,824	51,630	97,990	6,049	2,462	2,015	425,368
Undrawn commitments ³								
Corporate	—	16,695	18,574	11,858	272	84	93	47,576
SME corporate	—	118	1,156	9,684	352	131	72	11,513
SME retail ²	—	—	1,405	3,066	678	88	13	5,250
Sovereign	820	397	54	6	1	—	—	1,278
Bank	—	416	1	2	—	—	—	419
Total	820	17,626	21,190	24,616	1,303	303	178	66,036
Exposure - average EAD (\$M)								
Corporate	—	3. 113	1. 506	0. 822	0. 453	0. 822	1. 189	1. 393
SME corporate	—	0. 395	0. 428	0. 456	0. 367	0. 322	0. 380	0. 443
SME retail ²	—	—	0. 083	0. 066	0. 046	0. 083	0. 075	0. 062
Sovereign	12. 410	20. 841	1. 423	0. 212	0. 180	—	—	12. 581
Bank	—	1. 746	0. 310	0. 125	—	—	—	1. 583
Exposure - weighted average LGD (%)								
Corporate	—	55. 8	46. 4	38. 1	40. 7	26. 3	53. 8	47. 2
SME corporate	—	51. 6	28. 1	26. 2	28. 6	30. 4	31. 3	27. 0
SME retail ²	—	—	37. 0	32. 4	43. 1	31. 0	31. 6	34. 9
Sovereign	5. 4	10. 4	50. 7	57. 9	60. 0	—	—	6. 0
Bank	—	58. 8	59. 9	60. 0	—	—	—	58. 8
Exposure - weighted average risk weight (%) ⁴								
Corporate	—	27. 4	53. 1	78. 7	148. 3	149. 3	44. 3	52. 5
SME corporate	—	21. 7	28. 4	47. 9	77. 9	140. 3	127. 5	50. 9
SME retail ²	—	—	22. 5	43. 5	84. 5	108. 6	193. 8	53. 7
Sovereign	0. 9	2. 6	45. 7	96. 4	194. 4	—	—	1. 2
Bank	—	21. 0	54. 7	115. 3	—	—	—	21. 8

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)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

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

	30 June 2021							
	PD Band							
	0 < 0.03%	0.03% < 0.15%	0.15% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	Total
Non-retail ¹	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total credit risk exposures								
Corporate	–	39,769	42,568	36,230	707	828	835	120,937
SME corporate	–	1,279	4,533	45,554	2,651	1,608	1,115	56,740
SME retail ²	–	–	1,476	10,924	3,234	506	283	16,423
Sovereign	164,448	20,872	456	8	–	–	–	185,784
Bank	–	21,588	842	13	–	–	–	22,443
Total	164,448	83,508	49,875	92,729	6,592	2,942	2,233	402,327
Undrawn commitments ³								
Corporate	–	15,845	17,829	11,748	315	129	147	46,013
SME corporate	–	290	1,051	8,065	418	128	81	10,033
SME retail ²	–	–	1,330	3,370	726	86	16	5,528
Sovereign	913	328	43	6	–	–	–	1,290
Bank	–	364	32	2	–	–	–	398
Total	913	16,827	20,285	23,191	1,459	343	244	63,262
Exposure - average EAD (\$M)								
Corporate	–	2. 937	1. 586	0. 852	0. 402	0. 856	1. 562	1. 404
SME corporate	–	0. 848	0. 459	0. 468	0. 385	0. 359	0. 367	0. 461
SME retail ²	–	–	0. 080	0. 055	0. 048	0. 079	0. 075	0. 056
Sovereign	11. 017	21. 255	1. 059	0. 184	–	–	–	11. 334
Bank	–	2. 070	0. 463	0. 073	–	–	–	1. 804
Exposure - weighted average LGD (%)								
Corporate	–	55. 3	46. 2	40. 0	42. 7	39. 5	51. 9	47. 3
SME corporate	–	55. 1	28. 6	26. 7	28. 8	30. 0	33. 2	27. 8
SME retail ²	–	–	37. 3	31. 8	42. 3	32. 4	31. 2	34. 3
Sovereign	5. 4	10. 7	47. 9	56. 8	–	–	–	6. 1
Bank	–	59. 0	59. 9	59. 7	–	–	–	59. 1
Exposure - weighted average risk weight (%) ⁴								
Corporate	–	27. 9	52. 6	81. 8	155. 9	207. 3	88. 4	55. 1
SME corporate	–	23. 2	28. 4	48. 9	79. 0	137. 8	148. 5	52. 6
SME retail ²	–	–	22. 7	42. 6	83. 7	110. 4	222. 4	54. 1
Sovereign	1. 0	2. 7	52. 2	123. 5	–	–	–	1. 3
Bank	–	22. 4	61. 5	121. 3	–	–	–	24. 0

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)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

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

	30 June 2022							
	PD Band							
	0 < 0.1%	0.1% < 0.3%	0.3% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	Total
Retail	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total credit risk exposures								
Residential mortgage	189,935	139,076	85,000	253,549	9,027	4,640	4,695	685,922
Qualifying revolving retail	196	14,539	3,217	3,909	1,312	169	51	23,393
Other retail	63	504	366	4,307	3,027	465	80	8,812
Total	190,194	154,119	88,583	261,765	13,366	5,274	4,826	718,127
Undrawn commitments ¹								
Residential mortgage	43,803	18,042	9,005	10,402	128	17	16	81,413
Qualifying revolving retail	161	11,285	2,348	1,548	216	26	1	15,585
Other retail	50	292	224	1,730	188	72	4	2,560
Total	44,014	29,619	11,577	13,680	532	115	21	99,558
Exposure - average EAD (\$M)								
Residential mortgage	0.276	0.298	0.276	0.285	0.275	0.282	0.260	0.283
Qualifying revolving retail	0.004	0.009	0.007	0.008	0.007	0.007	0.006	0.008
Other retail	0.005	0.005	0.004	0.005	0.008	0.001	0.003	0.005
Exposure - weighted average LGD (%)								
Residential mortgage	20.0	19.6	19.5	20.1	20.2	20.0	20.3	19.9
Qualifying revolving retail	81.0	84.9	84.2	84.5	84.3	84.0	84.5	84.6
Other retail	78.6	74.6	77.1	73.4	81.1	90.5	83.3	77.3
Exposure - weighted average risk weight (%) ²								
Residential mortgage	4.4	12.4	21.3	40.9	103.9	141.8	177.9	25.0
Qualifying revolving retail	4.8	5.5	13.7	43.9	128.9	211.8	6.5	21.5
Other retail	19.6	37.8	54.3	85.9	125.6	184.6	68.4	100.0

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

² Includes 1.06 scaling factor.

Credit Risk (continued)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

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

	31 December 2021							
	PD Band							
	0 < 0.1%	0.1% < 0.3%	0.3% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	Total
Retail	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total credit risk exposures								
Residential mortgage	191,090	138,447	84,047	243,358	9,634	4,916	4,928	676,420
Qualifying revolving retail	203	14,679	3,267	3,894	1,288	174	48	23,553
Other retail	72	53	60	5,843	2,977	453	93	9,551
Total	191,365	153,179	87,374	253,095	13,899	5,543	5,069	709,524
Undrawn commitments ¹								
Residential mortgage	45,152	18,515	10,210	11,671	180	16	25	85,769
Qualifying revolving retail	166	11,303	2,413	1,594	206	28	—	15,710
Other retail	53	11	37	2,911	265	88	6	3,371
Total	45,371	29,829	12,660	16,176	651	132	31	104,850
Exposure - average EAD (\$M)								
Residential mortgage	0.272	0.296	0.274	0.279	0.270	0.284	0.258	0.279
Qualifying revolving retail	0.004	0.009	0.007	0.008	0.007	0.007	0.006	0.008
Other retail	0.006	0.317	0.006	0.005	0.009	0.001	0.004	0.005
Exposure - weighted average LGD (%)								
Residential mortgage	20.0	19.6	19.6	20.2	20.3	20.0	20.4	19.9
Qualifying revolving retail	81.0	84.9	84.2	84.5	84.2	83.9	84.6	84.6
Other retail	78.1	81.8	91.2	82.2	82.8	91.7	87.4	82.9
Exposure - weighted average risk weight (%) ²								
Residential mortgage	4.4	12.3	21.3	41.0	103.9	141.8	159.0	24.8
Qualifying revolving retail	4.8	5.5	13.7	43.7	128.7	210.9	81.9	21.4
Other retail	18.5	34.0	61.0	98.9	128.2	194.4	282.1	113.1

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

² Includes 1.06 scaling factor.

Credit Risk (continued)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

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

	30 June 2021							
	PD Band							
	0 < 0.1%	0.1% < 0.3%	0.3% < 0.5%	0.5% < 3%	3% < 10%	10% < 100%	Default	Total
Retail	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total credit risk exposures								
Residential mortgage	191,827	129,335	79,325	224,671	11,217	6,259	5,313	647,947
Qualifying revolving retail	204	14,686	3,311	4,103	1,470	212	61	24,047
Other retail	55	71	56	5,453	3,240	483	98	9,456
Total	192,086	144,092	82,692	234,227	15,927	6,954	5,472	681,450
Undrawn commitments ¹								
Residential mortgage	43,945	15,585	10,037	14,128	256	61	21	84,033
Qualifying revolving retail	169	11,707	2,454	1,596	225	30	1	16,182
Other retail	44	11	36	2,491	265	87	5	2,939
Total	44,158	27,303	12,527	18,215	746	178	27	103,154
Exposure - average EAD (\$M)								
Residential mortgage	0.273	0.298	0.280	0.288	0.268	0.220	0.272	0.283
Qualifying revolving retail	0.004	0.009	0.007	0.008	0.007	0.007	0.006	0.008
Other retail	0.005	0.438	0.006	0.006	0.010	0.001	0.005	0.006
Exposure - weighted average LGD (%)								
Residential mortgage	20.0	19.7	19.4	20.3	21.0	19.7	20.3	20.0
Qualifying revolving retail	81.0	84.9	84.2	84.5	84.3	84.0	84.7	84.6
Other retail	106.9	99.8	105.2	88.6	83.5	91.2	87.8	87.2
Exposure - weighted average risk weight (%) ²								
Residential mortgage	4.4	12.7	20.7	40.5	98.6	131.7	155.2	24.7
Qualifying revolving retail	4.8	5.5	13.7	44.2	128.7	212.2	60.3	22.7
Other retail	25.2	44.1	70.5	105.7	129.5	193.3	199.6	118.2

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

² Includes 1.06 scaling factor.

Credit Risk (continued)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

Analysis of Losses

The following tables provide a summary of financial losses by AIRB portfolio (Table 9e) and a comparison of financial losses to regulatory Expected Loss (EL) estimates (Table 9f (i)). 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. The supervisory slotting approach, calculated as the product of EAD and a prescribed factor, is used to determine regulatory EL for specialised lending exposures. A 50% factor is applied for defaulted specialised lending exposures.

Table 9e – Actual losses by portfolio type

Portfolio Type	30 June 2022		
	Full year losses in reporting period		
	Gross write-offs \$M	Recoveries \$M	Actual losses \$M
Corporate	145	(2)	143
SME corporate	64	(5)	59
SME retail (including SME retail secured by residential mortgages)	31	(1)	30
Specialised lending	51	–	51
Total corporate including SME and specialised lending	291	(8)	283
Sovereign	–	–	–
Bank	–	–	–
Residential mortgage (excluding SME retail secured by residential mortgages)	41	(3)	38
Qualifying revolving retail	133	(53)	80
Other retail	168	(54)	114
Total AIRB and specialised lending portfolios	633	(118)	515

Portfolio Type	31 December 2021		
	Half year losses in reporting period		
	Gross write-offs \$M	Recoveries \$M	Actual losses \$M
Corporate	84	–	84
SME corporate	29	(4)	25
SME retail (including SME retail secured by residential mortgages)	9	–	9
Specialised lending	47	–	47
Total corporate including SME and specialised lending	169	(4)	165
Sovereign	–	–	–
Bank	–	–	–
Residential mortgage (excluding SME retail secured by residential mortgages)	22	(2)	20
Qualifying revolving retail	72	(28)	44
Other retail	84	(28)	56
Total AIRB and specialised lending portfolios	347	(62)	285

Portfolio Type	30 June 2021		
	Full year losses in reporting period		
	Gross write-offs \$M	Recoveries \$M	Actual losses \$M
Corporate	105	–	105
SME corporate	87	(2)	85
SME retail (including SME retail secured by residential mortgages)	39	(1)	38
Specialised lending	3	–	3
Total corporate including SME and specialised lending	234	(3)	231
Sovereign	–	–	–
Bank	–	–	–
Residential mortgage (excluding SME retail secured by residential mortgages)	68	(5)	63
Qualifying revolving retail	238	(66)	172
Other retail	236	(48)	188
Total AIRB and specialised lending portfolios	776	(122)	654

Credit Risk (continued)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

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

Portfolio Type	30 June 2022	
	Full year actual loss	Regulatory one year expected loss estimate
	\$M	\$M
Corporate	143	714
SME corporate	59	532
SME retail (including SME retail secured by residential mortgages)	30	200
Specialised lending	51	865
Total corporate including SME and specialised lending	283	2,311
Sovereign	–	3
Bank	–	5
Residential mortgage (excluding SME retail secured by residential mortgages)	38	1,542
Qualifying revolving retail	80	249
Other retail	114	336
Total AIRB and specialised lending portfolios	515	4,446

Portfolio Type	31 December 2021	
	Half year actual loss	Regulatory one year expected loss estimate
	\$M	\$M
Corporate	84	779
SME corporate	25	606
SME retail (including SME retail secured by residential mortgages)	9	203
Specialised lending	47	880
Total corporate including SME and specialised lending	165	2,468
Sovereign	–	3
Bank	–	5
Residential mortgage (excluding SME retail secured by residential mortgages)	20	1,498
Qualifying revolving retail	44	230
Other retail	56	360
Total AIRB and specialised lending portfolios	285	4,564

Portfolio Type	30 June 2021	
	Full year actual loss	Regulatory one year expected loss estimate
	\$M	\$M
Corporate	105	872
SME corporate	85	652
SME retail (including SME retail secured by residential mortgages)	38	209
Specialised lending	3	879
Total corporate including SME and specialised lending	231	2,612
Sovereign	–	3
Bank	–	6
Residential mortgage (excluding SME retail secured by residential mortgages)	63	1,578
Qualifying revolving retail	172	292
Other retail	188	396
Total AIRB and specialised lending portfolios	654	4,887

Credit Risk (continued)

8.4 Portfolios Subject to Internal Ratings-based Approaches (continued)

Accuracy of Risk Estimates

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

Probability of Default

Table 9f (ii) compares estimates of long-run PD to actual default rates averaged over the period from the time of AIRB accreditation (2009 for most portfolios).

Average estimated PD is based on the average of long-run PD's for borrowers 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 borrowers during the year compared to the non-defaulted borrowers measured at the beginning of each financial year.

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

Portfolio Type	30 June 2022	
	Average estimated PD	Average actual PD
	%	%
Corporate	1.30	0.85
SME corporate	2.29	1.97
SME retail (including SME retail secured by residential mortgages) ¹	1.99	1.60
Specialised lending ²	n/a	1.48
Sovereign ³	0.50	0.02
Bank ³	0.26	0.22
Residential mortgage (excluding SME retail secured by residential mortgages)	0.85	0.72
Qualifying revolving retail	1.84	1.84
Other retail	5.15	4.76

1 The average annual PD represents an 8 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 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 2020 financial years. LGDs for retail portfolios are based on accounts that defaulted in 2014 to 2021 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 borrowers that defaulted.

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

Portfolio Type	30 June 2022		
	Average estimated downturn LGD	Average actual LGD	Ratio of estimated EAD to actual EAD
	%	%	
Corporate	54.7	36.1	1.2
SME corporate	33.0	19.0	1.1
SME retail (including SME retail secured by residential mortgages)	32.6	20.6	1.1
Specialised lending ¹	n/a	29.7	1.1
Sovereign ²	61.0	1.2	2.0
Bank ²	65.4	109.9	1.8
Residential mortgage (excluding SME retail secured by residential mortgages) ^{3,4}	20.1	2.8	1.0
Qualifying revolving retail ⁴	86.9	66.6	1.1
Other retail ⁴	95.9	69.9	1.1

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

2 Actual LGDs based on low volume of defaults observed.

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

4 Historical observed LGD data for all retail portfolios was restated in June 2022 for the financial period 2014-2020, to reflect an enhancement in calculation methodology

Credit Risk (continued)

8.5 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. 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 counterparty, 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 ELT FRC and the Board Risk and Compliance Committee each quarter, on a Total Committed Exposure basis (i.e. Committed Exposures plus drawn Uncommitted Exposures):

- 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 limits.

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)

8.5 Credit Risk Mitigation (continued)

Table 10b and 10c – Credit risk mitigation

	30 June 2022				
	Total exposure ¹	Eligible financial collateral	Exposures covered by guarantees	Exposures covered by credit derivatives	Coverage
	\$M	\$M	\$M	\$M	%
Advanced approach²					
Corporate	135,800	–	390	–	0.3
SME corporate	60,458	–	–	–	–
SME retail ³	15,665	–	–	–	–
Sovereign	216,652	–	–	–	–
Bank	20,383	–	–	–	–
Residential mortgage	685,922	–	–	–	–
Qualifying revolving retail	23,393	–	–	–	–
Other retail	8,812	–	–	–	–
Total advanced approach	1,167,085	–	390	–	0.0
Specialised lending	76,937	–	–	–	–
Standardised approach					
Corporate	507	–	–	–	–
SME corporate	573	–	–	–	–
SME retail	2,163	–	–	–	–
Sovereign	641	–	–	–	–
Bank	223	–	–	–	–
Residential mortgage	15,302	–	–	–	–
Other retail	1,068	–	–	–	–
Other assets	15,463	–	–	–	–
Central clearing counterparties	10,963	–	–	–	–
Total standardised approach	46,903	–	–	–	–
Total exposures	1,290,925	–	390	–	0.0

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)

8.5 Credit Risk Mitigation (continued)

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

	31 December 2021				
	Total exposure ¹	Eligible financial collateral	Exposures covered by guarantees	Exposures covered by credit derivatives	Coverage
	\$M	\$M	\$M	\$M	%
Advanced approach²					
Corporate	130,378	–	365	–	0.3
SME corporate	59,249	–	–	–	–
SME retail ³	15,850	–	–	–	–
Sovereign	199,867	–	–	–	–
Bank	20,024	–	–	–	–
Residential mortgage	676,420	–	–	–	–
Qualifying revolving retail	23,553	–	–	–	–
Other retail	9,551	–	–	–	–
Total advanced approach	1,134,892	–	365	–	0.0
Specialised lending	76,072	–	–	–	–
Standardised approach					
Corporate	1,289	–	–	–	–
SME corporate	640	–	–	–	–
SME retail	2,283	–	–	–	–
Sovereign	5,651	–	–	–	–
Bank	231	–	–	–	–
Residential mortgage	14,977	–	–	–	–
Other retail	961	–	–	–	–
Other assets	19,748	–	–	–	–
Central clearing counterparties	9,850	–	–	–	–
Total standardised approach	55,630	–	–	–	–
Total exposures	1,266,594	–	365	–	0.0

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)

8.5 Credit Risk Mitigation (continued)

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

	30 June 2021				
	Total exposure ¹	Eligible financial collateral	Exposures covered by guarantees	Exposures covered by credit derivatives	Coverage
	\$M	\$M	\$M	\$M	%
Advanced approach²					
Corporate	120,937	–	440	–	0.4
SME corporate	56,740	–	–	–	–
SME retail ³	16,423	–	–	–	–
Sovereign	185,784	–	–	–	–
Bank	22,443	–	–	–	–
Residential mortgage	647,947	–	–	–	–
Qualifying revolving retail	24,047	–	–	–	–
Other retail	9,456	–	–	–	–
Total advanced approach	1,083,777	–	440	–	0.0
Specialised lending	73,840	–	44	–	0.1
Standardised approach					
Corporate	1,234	–	–	–	–
SME corporate	805	–	–	–	–
SME retail	2,486	–	–	–	–
Sovereign	1,007	–	–	–	–
Bank	245	–	–	–	–
Residential mortgage	15,012	–	–	–	–
Other retail	927	–	–	–	–
Other assets	19,056	–	–	–	–
Central clearing counterparties	10,281	–	–	–	–
Total standardised approach	51,053	–	–	–	–
Total exposures	1,208,670	–	484	–	0.0

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)

8.6 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:

- Group Large Credit Exposure Policy;
- Group Country Risk Exposure Policy;
- Netting;
- Collateralisation of Derivative Transactions;
- Wrong Way Risk; 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 are highly correlated.

Specific wrong-way risk is managed by not entering into transactions where it exists and by 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.

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 and Netting policies. CSAs lower the 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 6.5% 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.

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 2022, the maximum additional collateral that could be posted to other counterparties based on the Group's current rating is \$100 million. As at 30 June 2022, a unilateral one-notch and two-notch downgrade in the Group's rating would have resulted in a further \$144 million and \$660 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.

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

	30 Jun 22 \$M	31 Dec 21 \$M	30 Jun 21 \$M
Gross positive fair value	35,378	19,643	21,034
Netting and collateral benefits	(27,267)	(14,399)	(14,740)
Including collateral held of which:			
Cash	(6,577)	(3,995)	(4,218)
Replacement cost	8,111	5,244	6,294
Potential future exposure	9,378	8,817	9,074
Impact of scaling factor of 1.4 and incurred CVA	6,910	5,559	6,069
Exposure at Default	24,399	19,620	21,437

¹ Excluding exposures to CCPs, clearers and derivative exposures classified under Securitisation (for APS120).

Credit Risk (continued)

8.6 Counterparty Credit Risk (continued)

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

Exposure type	Current Credit Exposure		
	30 Jun 22 \$M	31 Dec 21 \$M	30 Jun 21 \$M
Interest rate contracts	2,739	4,148	5,775
Foreign currency contracts	31,279	14,719	14,774
Equity contracts	—	—	—
Credit derivatives	2	7	8
Commodities and other	1,358	769	477
Total	35,378	19,643	21,034

1 Excluding exposures to CCPs, clearers and derivative exposures classified under Securitisation (for APS120). Exposure types based on product.

Table 11c Counterparty credit risk derivative transactions

Notional value by product type as at 30 June 2022 ^{1, 2}	Own Credit Portfolio		Intermediation Activity	
	Protection buyer \$M	Protection seller \$M	Protection buyer \$M	Protection seller \$M
Credit default swaps	1,816	—	—	324
Total return swaps	—	—	—	—
Credit options	—	—	—	—
Other	—	—	—	—
Total	1,816	—	—	324

1 Excluding exposures to CCPs.

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

Notional value by product type as at 31 December 2021 ^{1, 2}	Own Credit Portfolio		Intermediation Activity	
	Protection buyer \$M	Protection seller \$M	Protection buyer \$M	Protection seller \$M
Credit default swaps	1,891	—	—	335
Total return swaps	—	—	—	—
Credit options	—	—	—	—
Other	—	—	—	—
Total	1,891	—	—	335

1 Excluding exposures to CCPs.

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

Notional value by product type as at 30 June 2021 ^{1, 2}	Own Credit Portfolio		Intermediation Activity	
	Protection buyer \$M	Protection seller \$M	Protection buyer \$M	Protection seller \$M
Credit default swaps	2,154	—	—	421
Total return swaps	—	—	—	—
Credit options	—	—	—	—
Other	—	—	—	—
Total	2,154	—	—	421

1 Excluding exposures to CCPs.

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

Credit Risk (continued)

8.7 Securitisation

Securitisation is a financing 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 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 through access to the CLF and Term Funding Facility (TFF), for which these RMBS are eligible collateral.

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 Approach).

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)

8.7 Securitisation (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 70). 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).

The Bank receives underlying pool data for all its securitisation exposures and undertakes ongoing analysis and modelling as required under its policies and procedures and to meet APS 120 due diligence requirements. Where exposures are externally rated, the ratings are also monitored. The Group has no exposure to resecuritisation transactions.

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.

The Group holds less than 20% (except 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 (except 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 2022 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.

Assets are valued according to the normal methods appropriate to the asset class. As at 30 June 2022 and 31 December 2021, 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 2022 Annual Report. The Group provides support for securitisation transactions to the extent of those contractual obligations.

Credit Risk (continued)

8.7 Securitisation (continued)

Banking Book

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

- Group originated assets - capital relief comprise CBA Medallion Trust subject to capital treatment under APS 120.
- Group originated assets - non-capital relief comprise CBA Medallion Trust subject to capital treatment under APS 113 *Capital Adequacy: Internal Ratings-based Approach to Credit Risk*.
- Group originated assets - internal RMBS comprise CBA Medallion and ASB Medallion Trusts, held for contingent liquidity purposes.
- Third party originated assets comprise assets managed and sponsored by the Group.

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

Underlying Asset	30 June 2022			
	Group originated assets - capital relief	Group originated assets - non capital relief	Group originated assets - internal RMBS	Third party originated assets
	\$M	\$M	\$M	\$M
Residential mortgage	4,082	3,902	174,634	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	4,082	3,902	174,634	–

Underlying Asset	31 December 2021			
	Group originated assets - capital relief	Group originated assets - non capital relief	Group originated assets - internal RMBS	Third party originated assets
	\$M	\$M	\$M	\$M
Residential mortgage	4,553	4,370	128,487	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	4,553	4,370	128,487	–

Underlying Asset	30 June 2021			
	Group originated assets - capital relief	Group originated assets - non capital relief	Group originated assets - internal RMBS	Third party originated assets
	\$M	\$M	\$M	\$M
Residential mortgage	5,097	5,007	125,957	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	5,097	5,007	125,957	–

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.

Credit Risk (continued)

8.7 Securitisation (continued)

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

Underlying Asset	30 June 2022			
	Group originated assets securitised			
	Outstanding exposure \$M	Impaired assets \$M	Past due ¹ \$M	Losses recognised \$M
Residential mortgage	182,618	192	416	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	182,618	192	416	–

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

Underlying Asset	31 December 2021			
	Group originated assets securitised			
	Outstanding exposure \$M	Impaired assets ¹ \$M	Past due ² \$M	Losses recognised \$M
Residential mortgage	137,410	161	374	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	137,410	161	374	–

¹ Impaired assets as at 31 December 2021 have been restated due to an update in methodology.

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

Underlying Asset	30 June 2021			
	Group originated assets securitised			
	Outstanding exposure \$M	Impaired assets ¹ \$M	Past due ² \$M	Losses recognised \$M
Residential mortgage	136,061	142	397	–
Credit cards and other personal loans	–	–	–	–
Auto and equipment finance	–	–	–	–
Commercial loans	–	–	–	–
Other	–	–	–	–
Total	136,061	142	397	–

¹ Impaired assets as at 30 June 2021 have been restated due to an update in methodology.

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

Table 12i – Banking book exposures intended to be securitised

As at 30 June 2022, the Group does not have any outstanding banking book exposures that are intended to be securitised.

Credit Risk (continued)

8.7 Securitisation (continued)

Table 12j – Banking book activity for the reporting period

The Group's new securitisation activity in the banking book during the full year ended 30 June 2022, was \$2,950 million.

	Full year ended 30 June 2022	
	Total exposures securitised	Recognised gain or loss on sale
Underlying Asset	\$M	\$M
Residential mortgages	2,240	–
Credit cards and other personal loans	270	–
Auto and equipment finance	382	–
Commercial loans	58	–
Other	–	–
Total	2,950	–

	Half year ended 31 December 2021	
	Total exposures securitised	Recognised gain or loss on sale
Underlying Asset	\$M	\$M
Residential mortgages	2,080	–
Credit cards and other personal loans	105	–
Auto and equipment finance	382	–
Commercial loans	58	–
Other	–	–
Total	2,625	–

	Full year ended 30 June 2021	
	Total exposures securitised	Recognised gain or loss on sale
Underlying Asset	\$M	\$M
Residential mortgages	2,650	–
Credit cards and other personal loans	252	–
Auto and equipment finance	350	–
Commercial loans	–	–
Other	–	–
Total	3,252	–

Credit Risk (continued)

8.7 Securitisation (continued)

Table 12k – Banking book securitisation exposures retained or purchased

Securitisation Facility Type	30 June 2022		Total
	On Balance Sheet \$M	Off Balance Sheet \$M	exposures \$M
Liquidity support facilities	–	217	217
Warehouse facilities	11,168	4,305	15,473
Derivative facilities	–	192	192
Holdings of securities	4,043	–	4,043
Other	–	15	15
Total securitisation exposures in the banking book	15,211	4,729	19,940

Securitisation Facility Type	31 December 2021		Total
	On Balance Sheet \$M	Off Balance Sheet \$M	exposures \$M
Liquidity support facilities	–	242	242
Warehouse facilities	8,279	6,103	14,382
Derivative facilities	–	325	325
Holdings of securities	4,876	–	4,876
Other	–	15	15
Total securitisation exposures in the banking book	13,155	6,685	19,840

Securitisation Facility Type	30 June 2021		Total
	On Balance Sheet \$M	Off Balance Sheet \$M	exposures \$M
Liquidity support facilities	–	265	265
Warehouse facilities	6,725	4,758	11,483
Derivative facilities	–	412	412
Holdings of securities	5,039	–	5,039
Other	–	15	15
Total securitisation exposures in the banking book	11,764	5,450	17,214

Credit Risk (continued)

8.7 Securitisation (continued)

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

Total securitisation exposures in the banking book increased by \$2,729 million or 16% during the full year ended 30 June 2022.

The corresponding RWA increased by \$339 million or 11%, mainly due to the downward revision of warehouse risk weights.

Risk Weight Band	30 June 2022					
	Exposures		Total exposures	Risk Weighted Assets		Total RWA
	Securitisation	Resecuritisation		Securitisation	Resecuritisation	
	\$M	\$M	\$M	\$M	\$M	\$M
≤ 25%	19,611	–	19,611	3,335	–	3,335
> 25% ≤ 35%	285	–	285	78	–	78
> 35% ≤ 50%	23	–	23	9	–	9
> 50% ≤ 75%	21	–	21	11	–	11
> 75% ≤ 100%	–	–	–	–	–	–
> 100% ≤ 650%	–	–	–	–	–	–
> 650% ≤ 1250%	–	–	–	–	–	–
Total	19,940	–	19,940	3,433	–	3,433

Risk Weight Band	31 December 2021					
	Exposures		Total exposures	Risk Weighted Assets		Total RWA
	Securitisation	Resecuritisation		Securitisation	Resecuritisation	
	\$M	\$M	\$M	\$M	\$M	\$M
≤ 25%	19,750	–	19,750	3,434	–	3,434
> 25% ≤ 35%	–	–	–	–	–	–
> 35% ≤ 50%	63	–	63	27	–	27
> 50% ≤ 75%	27	–	27	14	–	14
> 75% ≤ 100%	–	–	–	–	–	–
> 100% ≤ 650%	–	–	–	–	–	–
> 650% ≤ 1250%	–	–	–	–	–	–
Total	19,840	–	19,840	3,475	–	3,475

Risk Weight Band	30 June 2021					
	Exposures		Total exposures	Risk Weighted Assets		Total RWA
	Securitisation	Resecuritisation		Securitisation	Resecuritisation	
	\$M	\$M	\$M	\$M	\$M	\$M
≤ 25%	17,100	–	17,100	3,042	–	3,042
> 25% ≤ 35%	–	–	–	–	–	–
> 35% ≤ 50%	73	–	73	32	–	32
> 50% ≤ 75%	38	–	38	20	–	20
> 75% ≤ 100%	–	–	–	–	–	–
> 100% ≤ 650%	–	–	–	–	–	–
> 650% ≤ 1250%	–	–	–	–	–	–
Total	17,211	–	17,211	3,094	–	3,094

Credit Risk (continued)

8.7 Securitisation (continued)

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

Total securitisation exposures deducted from Tier 1 capital had a nil movement during the half year ended 30 June 2022 and decreased by \$3 million during the half year ended 31 December 2021.

Underlying Asset	Common Equity Tier 1 Capital		
	30 Jun 22	31 Dec 21	30 Jun 21
	\$M	\$M	\$M
Residential mortgage	–	–	3
Credit cards and other personal loans	–	–	–
Auto and equipment finance	–	–	–
Commercial loans	–	–	–
Other	–	–	–
Total	–	–	3

Table 12m – Banking book exposures subject to early amortisation

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

Table 12n – Banking book resecuritisation exposures

The Group does not have any retained or repurchased banking book resecuritisation exposure.

Trading Book

Table 12o – Trading book exposures securitised

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

Table 12p – Trading book exposures intended to be securitised

As at 30 June 2022, the Group does not have any outstanding trading book exposures that are intended to be securitised.

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 2022, relating to \$1 million residential mortgages (31 December 2021: \$1 million, 30 June 2021: \$35 million), \$6 million auto and equipment finance (31 December 2021: \$6 million, 30 June 2021: \$38 million), and \$2 million personal finance (31 December 2021: \$0.3 million, 30 June 2021: \$7 million) exposures.

Table 12r – Trading book exposures subject to APS 116

The aggregate amount of exposures securitised by the Group and subject to APS 116 was \$33 million as at 30 June 2022 (31 December 2021: \$64 million, 30 June 2021: \$74 million), all of which are traditional securitisations. This consists of:

- Securities held in the trading book subject to the Standard Method of Nil (31 December 2021: Nil, 30 June 2021: Nil); and
- Derivatives held in the trading book subject to the Internal Models Approach (IMA) of \$33 million (31 December 2021: \$64 million, 30 June 2021: \$74 million).

Credit Risk (continued)

8.7 Securitisation (continued)

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

Securitisation Facility Type	30 June 2022		
	On Balance	Off Balance	Total
	Sheet	Sheet	exposures
	\$M	\$M	\$M
Liquidity support facilities	–	–	–
Warehouse facilities	–	–	–
Derivative facilities	–	33	33
Holdings of securities	–	–	–
Other	–	–	–
Total securitisation exposures in the trading book	–	33	33

Securitisation Facility Type	31 December 2021		
	On Balance	Off Balance	Total
	Sheet	Sheet	exposures
	\$M	\$M	\$M
Liquidity support facilities	–	–	–
Warehouse facilities	–	–	–
Derivative facilities	–	64	64
Holdings of securities	–	–	–
Other	–	–	–
Total securitisation exposures in the trading book	–	64	64

Securitisation Facility Type	30 June 2021		
	On Balance	Off Balance	Total
	Sheet	Sheet	exposures
	\$M	\$M	\$M
Liquidity support facilities	–	–	–
Warehouse facilities	–	–	–
Derivative facilities	–	74	74
Holdings of securities	–	–	–
Other	–	–	–
Total securitisation exposures in the trading book	–	74	74

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

The Group has \$33 million of derivatives exposures held in the trading book subject to IMA (default risk) under APS 116 as at 30 June 2022 (31 December 2021: \$64 million, 30 June 2021: \$74 million).

Credit Risk (continued)

8.7 Securitisation (continued)

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

Risk Weight Band	30 June 2022		
	ERBA Approach \$M	SFA Approach \$M	Total exposures \$M
≤ 25%	17	15	32
> 25% ≤ 35%	–	1	1
> 35% ≤ 50%	–	–	–
> 50% ≤ 75%	–	–	–
> 75% ≤ 100%	–	–	–
> 100% ≤ 650%	–	–	–
> 650% ≤ 1250%	–	–	–
Total	17	16	33

Risk Weight Band	31 December 2021		
	ERBA Approach \$M	SFA Approach \$M	Total exposures \$M
≤ 25%	38	26	64
> 25% ≤ 35%	–	–	–
> 35% ≤ 50%	–	–	–
> 50% ≤ 75%	–	–	–
> 75% ≤ 100%	–	–	–
> 100% ≤ 650%	–	–	–
> 650% ≤ 1250%	–	–	–
Total	38	26	64

Risk Weight Band	30 June 2021		
	ERBA Approach \$M	SFA Approach \$M	Total exposures \$M
≤ 25%	58	16	74
> 25% ≤ 35%	–	–	–
> 35% ≤ 50%	–	–	–
> 50% ≤ 75%	–	–	–
> 75% ≤ 100%	–	–	–
> 100% ≤ 650%	–	–	–
> 650% ≤ 1250%	–	–	–
Total	58	16	74

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

The Group has \$1,741 million of RWA held in the trading book subject to IMA (default risk) under APS 116 as at 30 June 2022 (31 December 2021: \$821 million, 30 June 2021: \$796 million).

Credit Risk (continued)

8.7 Securitisation (continued)

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

30 June 2022								
Risk Weight Band	ERBA Approach		SFA Approach		Standardised Approach		Total Capital Requirements	
	Securitisation	Resecuritisation	Securitisation	Resecuritisation	Securitisation	Resecuritisation	Securitisation	Resecuritisation
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
≤ 25%	3	–	3	–	–	–	6	–
> 25% ≤ 35%	–	–	–	–	–	–	–	–
> 35% ≤ 50%	–	–	–	–	–	–	–	–
> 50% ≤ 75%	–	–	–	–	–	–	–	–
> 75% ≤ 100%	–	–	–	–	–	–	–	–
> 100% ≤ 650%	–	–	–	–	–	–	–	–
> 650% ≤ 1250%	–	–	–	–	–	–	–	–
Total	3	–	3	–	–	–	6	–

31 December 2021								
Risk Weight Band	ERBA Approach		SFA Approach		Standardised Approach		Total Capital Requirements	
	Securitisation	Resecuritisation	Securitisation	Resecuritisation	Securitisation	Resecuritisation	Securitisation	Resecuritisation
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
≤ 25%	6	–	5	–	–	–	11	–
> 25% ≤ 35%	–	–	–	–	–	–	–	–
> 35% ≤ 50%	–	–	–	–	–	–	–	–
> 50% ≤ 75%	–	–	–	–	–	–	–	–
> 75% ≤ 100%	–	–	–	–	–	–	–	–
> 100% ≤ 650%	–	–	–	–	–	–	–	–
> 650% ≤ 1250%	–	–	–	–	–	–	–	–
Total	6	–	5	–	–	–	11	–

30 June 2021								
Risk Weight Band	ERBA Approach		SFA Approach		Standardised Approach		Total Capital Requirements	
	Securitisation	Resecuritisation	Securitisation	Resecuritisation	Securitisation	Resecuritisation	Securitisation	Resecuritisation
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
≤ 25%	9	–	3	–	–	–	12	–
> 25% ≤ 35%	–	–	–	–	–	–	–	–
> 35% ≤ 50%	–	–	–	–	–	–	–	–
> 50% ≤ 75%	–	–	–	–	–	–	–	–
> 75% ≤ 100%	–	–	–	–	–	–	–	–
> 100% ≤ 650%	–	–	–	–	–	–	–	–
> 650% ≤ 1250%	–	–	–	–	–	–	–	–
Total	9	–	3	–	–	–	12	–

Credit Risk (continued)

8.7 Securitisation (continued)

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

The Group has no trading book exposures that are entirely deducted entirely from CET1 capital.

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.

Table 12v – Trading book exposures subject to early amortisation

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

Table 12w – Trading book resecuritisation exposures

The Group did not have any retained or repurchased trading book resecuritisation exposures.

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 Table 12j (banking book) and Table 12q (trading book).

The total exposures securitised in the full year to 30 June 2022 was \$2,959 million (30 June 2021: \$3,332 million). The total exposures securitised in the half year to 31 December 2021 was \$2,632 million.

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

Securitisation Facility Type	As at 30 June 2022		
	On Balance Sheet \$M	Off Balance Sheet \$M	Total exposures \$M
Liquidity support facilities	–	217	217
Warehouse facilities	11,168	4,305	15,473
Derivative facilities	–	225	225
Holdings of securities	4,043	–	4,043
Other	–	15	15
Total securitisation exposures	15,211	4,762	19,973

Securitisation Facility Type	As at 31 December 2021		
	On Balance Sheet \$M	Off Balance Sheet \$M	Total exposures \$M
Liquidity support facilities	–	242	242
Warehouse facilities	8,279	6,103	14,382
Derivative facilities	–	389	389
Holdings of securities	4,876	–	4,876
Other	–	15	15
Total securitisation exposures	13,155	6,749	19,904

Securitisation Facility Type	As at 30 June 2021		
	On Balance Sheet \$M	Off Balance Sheet \$M	Total exposures \$M
Liquidity support facilities	–	265	265
Warehouse facilities	6,725	4,758	11,483
Derivative facilities	–	486	486
Holdings of securities	5,039	–	5,039
Other	–	15	15
Total securitisation exposures	11,764	5,524	17,288

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 strategic reasons. The Group has established policies and governance framework for managing equity risk. Equity investments require approval by the Board or delegates in accordance with the Group Delegations Policy. 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.

Table 16b to 16f – Equity investment exposures¹

	30 June 2022	
	Balance	Fair
	Sheet value	value
	\$M	\$M
Equity Investments		
Value of listed (publicly traded) equities	2,786	2,834
Value of unlisted (privately held) equities	1,687	1,847
Total	4,473	4,681

	31 December 2021	
	Balance	Fair
	Sheet value	value
	\$M	\$M
Equity Investments		
Value of listed (publicly traded) equities	4,114	4,964
Value of unlisted (privately held) equities	3,762	3,797
Total	7,876	8,761

	30 June 2021	
	Balance	Fair
	Sheet value	value
	\$M	\$M
Equity Investments		
Value of listed (publicly traded) equities	3,393	4,931
Value of unlisted (privately held) equities	3,364	3,775
Total	6,757	8,706

	Half year ended		
	30 Jun 22	31 Dec 21	30 Jun 21
	\$M	\$M	\$M
Gains or Losses on Equity Investments			
Cumulative realised gains in reporting period	299	9	19
Total unrealised losses or gains ²	(1,805)	236	2,349

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

2 Includes the revaluation of an unlisted equity instrument measured at fair value on the Group's Balance Sheet at 30 June 2021 and 30 June 2022. For more details refer to the 2022 Annual Report Note 9.5.

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. The Market Risk Oversight area provides support to the Board Risk and Compliance Committee and ALCO in the performance of their market risk management accountabilities.

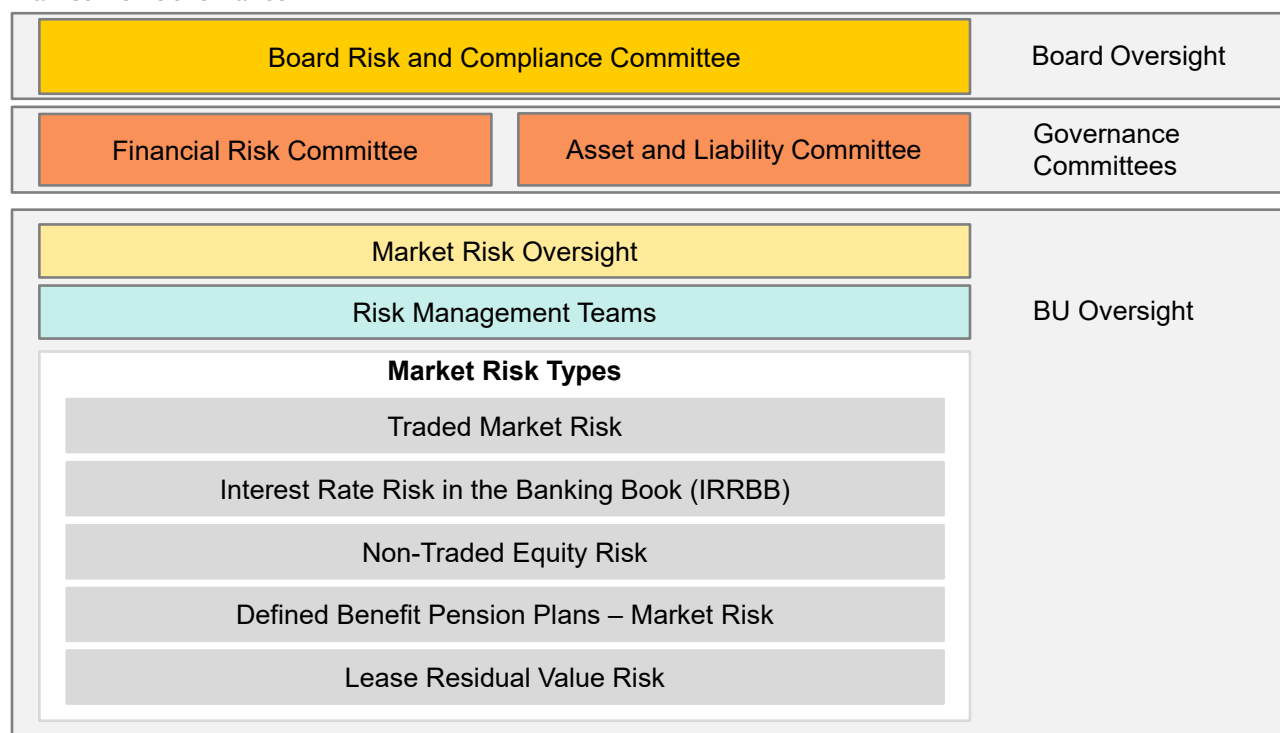
Market risk may only be generated by authorised business areas across the Group. The key functional areas that must be established to support market risk activity comprise:

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

The chart below 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 Governance



Market Risk (continued)

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 movements and correlation between different markets.

VaR is modelled at a 99.0% confidence level. This means that there is a 99.0% probability that the loss will not exceed the VaR estimate on any given day.

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 six years of daily movement in market rates.

A 10-day holding period is used for trading book positions. A 20-day holding period is used for interest rate risk in the banking book.

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 99.0%. Management then uses these results in decisions to manage the economic impact of market risk positions.

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).

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.

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 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.

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

	30 Jun 22	31 Dec 21	30 Jun 21
Traded Market Risk RWA by Modelling Approach ¹	\$M	\$M	\$M
Internal Model Approach	9,863	9,988	7,528
Standard Method	820	815	779
Total Traded Market Risk RWA	10,683	10,803	8,307

¹ Refer to page 12 for commentary.

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

Table 13b – Traded Market Risk under the Standard Method

Exposure Type	30 Jun 22	31 Dec 21	30 Jun 21
	\$M	\$M	\$M
Interest rate risk	65.4	65.0	62.1
Equity risk	–	–	–
Foreign exchange risk	0.2	0.2	0.2
Commodity risk	–	–	–
Total	65.6	65.2	62.3
Risk Weighted Asset equivalent ¹	820	815	779

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

Market Risk (continued)

10.1 Traded Market Risk (continued)

Traded Market Risk Internal Model

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

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			As at
	Mean	Maximum	Minimum	balance
	value	value	value	date
Average VaR ¹	\$M	\$M	\$M	\$M
Over the 6 months to 30 June 2022	74	120	54	76
Over the 6 months to 31 December 2021	108	167	70	79
Over the 6 months to 30 June 2021	118	184	83	135

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

	Aggregate SVaR Over the Reporting Period			As at
	Mean	Maximum	Minimum	balance
	value	value	value	date
Stressed VaR ¹	\$M	\$M	\$M	\$M
Over the 6 months to 30 June 2022	132	214	82	134
Over the 6 months to 31 December 2021	110	219	65	128
Over the 6 months to 30 June 2021	77	173	37	173

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 2022 there were two back test outliers. The back-test results are summarised in Table 14f (ii) and details of these are provided in Table 14f (iii). A comparison of VaR with actual gains or losses during the 6 months to 30 June 2022 is illustrated in 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 2022	2
Over the 6 months to 31 December 2021	1
Over the 6 months to 30 June 2021	–

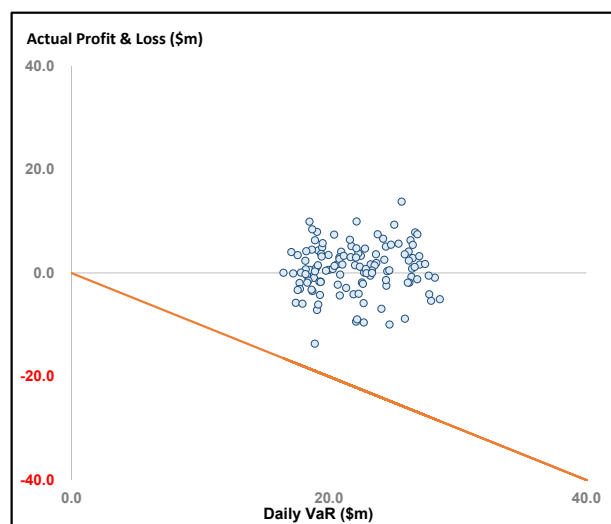
¹ 10 day, 99% confidence interval over the reporting period.

Table 14f (iii): Details of Back-Testing Outliers

Date	Over the Reporting Period 1 January 2022 to 30 June 2022	
	Hypothetical	VaR
	loss	99%
	\$M	\$M
13 June 2022	41	19
03 May 2022	20	17

Date	Over the Reporting Period 1 July 2021 to 31 December 2021	
	Hypothetical	VaR
	loss	99%
	\$M	\$M
19 October 2021	93	13

Table 14f (iv): Comparison of VaR estimates outliers with actual gains/losses experiences for the 6 months ended 30 June 2022



Market Risk (continued)

10.2 Non-Traded Market Risk

Non-traded market risk activities are governed by the Group Market Risk Policy approved by the Board Risk and Compliance Committee. The policy describes the framework that 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's smaller banking subsidiaries, PTBC and CBA Europe N.V. manage 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.

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 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 Table 17b includes the regulatory RWA for IRRBB.

Market Risk (continued)

10.2 Non-Traded Market Risk (continued)

Table 17b – Interest Rate Risk in the Banking Book

	Change in Economic Value		
	30 Jun 22	31 Dec 21	30 Jun 21
	\$M	\$M	\$M
Stress Testing: Interest Rate Shock Applied			
AUD			
200 basis point parallel increase	(825)	(637)	(724)
200 basis point parallel decrease	867	639	764
NZD			
200 basis point parallel increase	(263)	(372)	(413)
200 basis point parallel decrease	272	395	437
USD			
200 basis point parallel increase	(106)	(126)	(171)
200 basis point parallel decrease	112	81	76
Other			
200 basis point parallel increase	81	3	38
200 basis point parallel decrease	(80)	(4)	(38)
	30 Jun 22	31 Dec 21	30 Jun 21
	\$M	\$M	\$M
Regulatory RWA¹			
Interest rate risk in the banking book	47,640	24,356	14,619

1 Refer to page 12 for commentary.

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 operations in New Zealand, Asia, USA and Europe. The management of structural foreign exchange risk is regularly reported to the Group's ALCO.

Lease Residual Value Risk

The Group takes lease residual value risk on assets such as industrial, mining, rail, aircraft and other equipment. A lease residual value guarantee exposes the Group to a potential fall in prices of these assets below the guarantee level at lease expiry. 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 (DB) portion that creates market risk for the Group. Risk Management provide oversight of the market risk associated with the DB assets held and managed on behalf of the employees receiving defined benefit pensions. For further information on the Fund, refer to Note 10.2 of the 2022 Annual Report.

Operational Risk

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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 across the Group;
- Transparency, escalation and resolution of risk and control 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:

- 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. It also provides for 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 and undertook a Remedial Action Plan (RAP) which was endorsed by APRA. Delivery of the RAP was completed by the due date of 30 June 2021. On 30 September 2021, the RAP was closed with all milestones assessed as complete and effective and all Recommendations closed. The EU remains in place until the Bank is able to demonstrate that the changes made are sustainable and continuously improved.

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.

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 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.

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 externally from 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.

Table 6e – Capital requirements for operational risk

	30 Jun 22 \$M	31 Dec 21 \$M	30 Jun 21 \$M
Total operational risk RWA ¹	45,922	46,081	46,204

¹ Refer to page 12 for commentary.

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 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;
- Liquid assets are held in Australian dollar and foreign currency denominated securities in accordance with expected requirements;
- The Group has three categories of domestic liquid assets. 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 either using the Committed Liquidity Facility (CLF) or under the Exceptional Liquidity Assistance (ELA) arrangements. The CLF will be phased out by the end of 2022 and the Group has increased its levels of internal RMBS to meet APRA's new requirements with regards to holdings of contingent liquidity for periods of stress; and
- Offshore branches and subsidiaries adhere to liquidity policies and hold appropriate foreign currency liquid assets to meet required regulations. Material banking subsidiaries are required to maintain an LCR of at least 100%.

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 Medium-Term Note Programmes, Euro Medium-Term Note Programme, multi jurisdiction Covered Bond programme and Medallion securitisation programmes; and
- Access to the RBA TFF and RBNZ term lending facilities.

The Group's key liquidity tools include:

- A 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;
- An additional liquidity management model that allows forecasting of liquidity needs on a daily basis;
- 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;
- Holding of HQLA, alternative liquid assets and internal RMBS which are eligible for repurchase with the Central bank 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 2022 quarter, excess liquid assets averaged \$43.6 billion and the average LCR decreased from 131% to 130%.

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 Committed Liquidity Facility 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 were impacted during the quarter due to a \$7.5 billion reduction in the Group's CLF to \$15 billion from 1 May 2022.

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 growth in Retail and SME customer deposits.

Table 20 - LCR Disclosure Template

	30 Jun 22	30 Jun 22	31 Mar 22	31 Mar 22
	Total unweighted value (average) ¹ \$M	Total weighted value (average) ¹ \$M	Total unweighted value (average) ¹ \$M	Total weighted value (average) ¹ \$M
Liquid assets, of which:				
1 High quality liquid assets (HQLA)		171,799		166,635
2 Alternative liquid assets (ALA)		17,222		21,461
3 Reserve Bank of New Zealand (RBNZ) securities		2,394		3,900
Cash outflows				
4 Retail deposits and deposits from small business customers, of which:	445,434	39,938	434,793	38,517
5 Stable deposits	243,102	12,155	238,596	11,930
6 Less stable deposits	202,332	27,783	196,197	26,587
7 Unsecured wholesale funding, of which:	190,045	80,290	195,702	82,889
8 Operational deposits (all counterparties) and deposits in networks for cooperative banks	95,721	23,505	101,061	24,839
9 Non-operational deposits (all counterparties)	84,712	47,173	82,791	46,200
10 Unsecured debt	9,612	9,612	11,850	11,850
11 Secured wholesale funding		6,653		4,415
12 Additional requirements, of which:	178,858	27,020	177,250	26,051
13 Outflows related to derivatives exposures and other collateral requirements	6,147	6,147	5,047	5,047
14 Outflows related to loss of funding on debt products	–	–	–	–
15 Credit and liquidity facilities	172,711	20,873	172,203	21,004
16 Other contractual funding obligations	–	–	2	–
17 Other contingent funding obligations	71,103	8,828	70,803	9,590
18 Total cash outflows		162,729		161,462
Cash inflows				
19 Secured lending	16,135	1,303	12,481	1,667
20 Inflows from fully performing exposures	11,832	7,945	10,205	6,509
21 Other cash inflows	5,684	5,684	6,702	6,702
22 Total cash inflows	33,651	14,932	29,388	14,878
23 Total liquid assets		191,415		191,996
24 Total net cash outflows		147,797		146,584
25 Liquidity Coverage Ratio (%)		130		131
Number of data points used (Business Days)		56		58

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 NSFR decreased from 131% at 31 March 2022 to 130% at 30 June 2022. Over the period, the Group's ASF increased due to strong growth in Retail and SME deposits as well as wholesale funding issuances. RSF also increased due to strong growth in both mortgage and business lending, as well as a reduction in the CLF which resulted in a higher RSF factor for mortgages that were pledged as collateral against the CLF.

Table 21 - NSFR Disclosure Template

As at 30 June 2022					
Unweighted value by residual maturity					Weighted value
	No Maturity	0 - 6 months	7 - 12 months	> 12 months	
	\$M	\$M	\$M	\$M	\$M
Available Stable Funding (ASF) Item					
1 Capital	72,728	–	–	30,527	103,255
2 Regulatory Capital	72,728	–	–	30,527	103,255
3 Other Capital Instruments	–	–	–	–	–
4 Retail deposits and deposits from small business customers	424,227	90,564	238	176	477,365
5 Stable deposits ¹	234,996	38,239	14	13	259,599
6 Less stable deposits ²	189,231	52,325	224	163	217,766
7 Wholesale funding	174,355	179,985	35,169	135,460	250,163
8 Operational deposits	96,629	–	–	–	48,314
9 Other wholesale funding	77,726	179,985	35,169	135,460	201,849
10 Liabilities with matching interdependent assets	–	–	–	–	–
11 Other liabilities	–	19,746	205	2,423	2,526
12 NSFR derivative liabilities	–	9,613	–	–	–
13 All other liabilities and equity not included in the above categories	–	10,133	205	2,423	2,526
14 Total ASF					833,309
Required Stable Funding (RSF) Item					
15 a) Total NSFR HQLA					4,132
15 b) ALA					6,614
15 c) RBNZ Securities					436
16 Deposits held at other financial institutions for operational purposes					–
17 Performing loans and securities	4,740	100,932	41,546	712,553	581,712
18 Performing loans to financial institutions secured by Level 1 HQLA	4,361	29,670	1,304	73	4,128
19 Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	379	21,502	9,519	28,729	36,770
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)	–	38,871	21,691	142,679	151,467
21 of which: with a risk weight of less than or equal to 35% under APS 112	–	31	24	456	324
22 Performing residential mortgages	–	8,412	8,178	537,100	384,033
23 of which: with a risk weight equal to 35% under APS 112	–	7,569	7,332	460,818	318,209
24 Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	–	2,477	854	3,972	5,314
25 Assets with matching interdependent liabilities	–	–	–	–	–
26 Other assets:	2,932	31,608	935	24,634	35,299
27 Physical traded commodities, including gold	2,932	–	–	–	2,492
28 Assets posted as initial margin for derivative contracts and contributions to default funds of central counterparties (CCPs)	–	1,610	–	–	1,368
29 NSFR derivative assets	–	8,462	–	–	–
30 NSFR derivative liabilities before deduction of variation margin posted	–	15,933	–	–	3,187
31 All other assets not included in the above categories	–	5,603	935	24,634	28,252
32 Off Balance Sheet items	–	195,773	–	–	11,031
33 Total RSF					639,224
34 Net Stable Funding Ratio (%)					130

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 2022					
Unweighted value by residual maturity					Weighted value
	No Maturity	0 - 6 months	7 - 12 months	> 12 months	
	\$M	\$M	\$M	\$M	\$M
Available Stable Funding (ASF) Item					
1 Capital	72,376	–	–	29,562	101,938
2 Regulatory Capital	72,376	–	–	29,562	101,938
3 Other Capital Instruments	–	–	–	–	–
4 Retail deposits and deposits from small business customers	425,870	88,217	229	172	476,632
5 Stable deposits ¹	234,519	36,994	10	23	257,970
6 Less stable deposits ²	191,351	51,223	219	149	218,662
7 Wholesale funding	167,192	155,388	31,815	132,399	242,395
8 Operational deposits	98,255	–	–	–	49,128
9 Other wholesale funding	68,937	155,388	31,815	132,399	193,267
10 Liabilities with matching interdependent assets	–	–	–	–	–
11 Other liabilities	–	18,138	184	2,675	2,767
12 NSFR derivative liabilities	–	6,697	–	–	–
13 All other liabilities and equity not included in the above categories	–	11,441	184	2,675	2,767
14 Total ASF					823,732
Required Stable Funding (RSF) Item					
15 a) Total NSFR HQLA					3,898
15 b) ALA					7,364
15 c) RBNZ Securities					419
16 Deposits held at other financial institutions for operational purposes	–	–	–	–	–
17 Performing loans and securities	1,717	83,890	44,152	695,325	567,477
18 Performing loans to financial institutions secured by Level 1 HQLA	1,336	19,633	760	67	2,544
19 Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	381	15,759	8,946	21,909	28,803
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)	–	37,847	24,627	144,509	153,975
21 of which: with a risk weight of less than or equal to 35% under APS 112	–	24	30	476	337
22 Performing residential mortgages	–	8,787	8,677	523,174	375,619
23 of which: with a risk weight equal to 35% under APS 112	–	7,829	7,658	443,132	306,442
24 Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	–	1,864	1,142	5,666	6,536
25 Assets with matching interdependent liabilities	–	–	–	–	–
26 Other assets:	9,332	24,291	973	26,899	42,039
27 Physical traded commodities, including gold	9,332	–	–	–	7,932
28 Assets posted as initial margin for derivative contracts and contributions to default funds of central counterparties (CCPs)	–	1,955	–	–	1,661
29 NSFR derivative assets	–	4,172	–	–	–
30 NSFR derivative liabilities before deduction of variation margin posted	–	12,505	–	–	2,501
31 All other assets not included in the above categories	–	5,659	973	26,899	29,945
32 Off Balance Sheet items	–	192,748	–	–	9,572
33 Total RSF					630,769
34 Net Stable Funding Ratio (%)					131

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.

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 Disclosures Template and Regulatory Balance Sheet.

	30 Jun 22 Basel III APRA	30 Jun 22 Basel III Internationally Comparable
Summary Group Capital Adequacy Ratios (Level 2)	%	%
CET1	11.5	18.6
Tier 1	13.6	21.5
Total Capital	17.6	27.1

	30 Jun 22 Basel III \$M	Reconciliation Table Reference
Common Equity Tier 1 Capital: instruments and reserves		
1 Directly issued qualifying ordinary shares (and equivalent for mutually-owned entities) capital	36,467	Table A
2 Retained earnings	36,695	
3 Accumulated other comprehensive income (and other reserves)	(460)	
4 Directly issued capital subject to phase out from CET1 (only applicable to mutually-owned companies)	–	
5 Ordinary share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	–	Table B
6 Common Equity Tier 1 Capital before regulatory adjustments	72,702	
Common Equity Tier 1 Capital: regulatory adjustments		
7 Prudential valuation adjustments	(10)	
8 Goodwill (net of related tax liability)	(5,330)	Table C
9 Other intangibles other than mortgage servicing rights (net of related tax liability)	(1,548)	Table C
10 Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability)	–	Table D
11 Cash flow hedge reserve	859	
12 Shortfall of provisions to expected losses ¹	(18)	
13 Securitisation gain on sale (as set out in paragraph 562 of Basel II framework)	–	
14 Gains and losses due to changes in own credit risk on fair valued liabilities	(121)	
15 Defined benefit superannuation fund net assets ²	(406)	
16 Investments in own shares (if not already netted off paid-in capital on reported Balance Sheet)	–	
17 Reciprocal cross-holdings in common equity	–	
18 Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the ADI does not own more than 10% of the issued share capital (amount above 10% threshold)	–	Table G
19 Significant investments in the ordinary shares of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions (amount above 10% threshold)	–	Table G
20 Mortgage service rights (amount above 10% threshold)	–	
21 Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)	–	Table D
22 Amount exceeding the 15% threshold		
23 of which: significant investments in the ordinary shares of financial entities	–	Table G
24 of which: mortgage servicing rights	–	
25 of which: deferred tax assets arising from temporary differences	–	Table D
CET1 (Internationally Comparable)	66,128	

- 1 Represents the shortfall between the calculated EL and Eligible Provisions (EP) with respect to credit portfolios which are subject to the AIRB approach. The adjustment is assessed separately for both defaulted and non-defaulted exposures. Where there is an excess of EL over EP in either assessments, the difference must be deducted from CET1. For non-defaulted exposures where the EL is lower than the EP, this may be included in Tier 2 capital up to a maximum of 0.6% of total credit RWAs.
- 2 In accordance with APRA regulations, the surplus in the Group's defined benefit superannuation fund, net of any deferred tax liability, is deducted from CET1.

Appendices (continued)

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

		30 Jun 22 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	26	Table A
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	(4,246)	Table G
26e	of which: deferred tax assets not reported in rows 10, 21 and 25	(3,016)	Table D
26f	of which: capitalised expenses	(1,056)	
26g	of which: investments in commercial (non-financial) entities that are deducted under APRA prudential requirements	(647)	Table G
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	(166)	
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	(15,679)	
29	Common Equity Tier 1 Capital (APRA)	57,023	
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	10,535	Table E
33	Directly issued capital instruments subject to phase out from Additional Tier 1	–	
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	10,535	Table E
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)	10,535	
45	Tier 1 Capital (T1=CET1+AT1)	67,558	
Tier 2 Capital: instruments and provisions			
46	Directly issued qualifying Tier 2 instruments	19,491	Table F
47	Directly issued capital instruments subject to phase out from Tier 2	–	
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	1,020	
51	Tier 2 Capital before regulatory adjustments	20,511	

1 Total regulatory adjustments to CET1 of \$15,679 million in Row 28 is net of APRA's allowance for treasury shares held by the Group's eligible employee share scheme trusts of \$26 million as detailed in Row 26a.

Appendices (continued)

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

	30 Jun 22 Basel III \$M	Reconciliation Table Reference
Tier 2 Capital: regulatory adjustments		
52 Investments in own Tier 2 instruments	(30)	
53 Reciprocal cross-holdings in Tier 2 instruments	–	
54 Investments in the Tier 2 Capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the ADI does not own more than 10% of the issued share capital (amount above 10% threshold) ¹	(489)	
55 Significant investments in the Tier 2 Capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions	–	
56 National specific regulatory adjustments (rows 56a, 56b, 56c)		
56a of which: holdings of capital instruments in group members by other group members on behalf of third parties	–	
56b of which: investments in the capital of financial institutions that are outside the scope of regulatory consolidation not reported in rows 54 and 55	–	
56c of which: other national specific regulatory adjustments not reported in rows 56a and 56b	–	
57 Total regulatory adjustments to Tier 2 Capital	(519)	
58 Tier 2 Capital (T2)	19,992	
59 Total Capital (TC=T1+T2)	87,550	
60 Total risk weighted assets based on APRA standards	497,892	
Capital ratios and buffers		
61 CET1 (as a percentage of risk weighted assets)	11.5%	
62 Tier 1 (as a percentage of risk weighted assets)	13.6%	
63 Total Capital (as a percentage of risk weighted assets)	17.6%	
64 Buffer requirement (minimum CET1 requirement of 4.5% plus capital conservation buffer of 2.5% plus any countercyclical buffer requirements, expressed as a percentage of risk weighted assets)	8.0%	
65 of which: capital conservation buffer requirement	3.5%	
66 of which: ADI-specific countercyclical buffer requirements	–	Table H
67 of which: G-SIB buffer requirement (not applicable)	n/a	
68 Common Equity Tier 1 available to meet buffers (as a percentage of risk weighted assets)	11.5%	
National minima		
69 National Common Equity Tier 1 minimum ratio	–	
70 National Tier 1 minimum ratio	–	
71 National Total Capital minimum ratio	–	
Amount below thresholds for deductions (not risk weighted)		
72 Non-significant investments in the capital of other financial entities	1,520	Table G
73 Significant investments in the ordinary shares of financial entities	2,726	Table G
74 Mortgage servicing rights (net of related tax liability)	–	
75 Deferred tax assets arising from temporary differences (net of related tax liability)	3,016	Table D
Applicable caps on the inclusion of provisions in Tier 2		
76 Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	186	
77 Cap on inclusion of provisions in Tier 2 under standardised approach	188	
78 Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	834	
79 Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	2,271	
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2018 and 1 Jan 2022)		
80 Current cap on CET1 instruments subject to phase out arrangements	–	
81 Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	–	
82 Current cap on AT1 instruments subject to phase out arrangements	–	
83 Amount excluded from AT1 instruments due to cap (excess over cap after redemptions and maturities)	–	Table E
84 Current cap on Tier 2 instruments subject to phase out arrangements	–	
85 Amount excluded from Tier 2 due to cap (excess over cap after redemptions and maturities)	–	Table F

¹ Includes the Group's holdings of other banks' Total Loss Absorbing Capacity (TLAC) instruments which are required to be deducted from the Group's Tier 2 Capital under the revised APS111 *Capital Adequacy: Measurement of Capital* effective 1 January 2022.

Appendices (continued)

13.2 Detailed Leverage Disclosures Template (APS 330 Attachment E)

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

		30 Jun 22 Basel III APRA \$M
1	Total consolidated assets as per published financial statements	1,215,260
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(5,043)
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	(370)
5	Adjustment for SFTs (i.e. repos and similar secured lending)	326
6	Adjustment for off Balance Sheet exposures (i.e. conversion to credit equivalent amounts of off Balance Sheet exposures)	100,603
7	Other adjustments	(15,408)
8	Leverage ratio exposure	1,295,368

Table 18 – Leverage ratio disclosure template

		30 Jun 22 Basel III APRA \$M
On Balance Sheet exposures		
1	On Balance Sheet items (excluding derivatives and securities financing transactions (SFTs), but including collateral)	1,130,342
2	Asset amounts deducted in determining Tier 1 capital	(15,408)
3	Total On Balance Sheet exposures (excluding derivatives and SFTs)	1,114,934
Derivative exposures		
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	14,584
5	Add-on amounts for potential future credit exposure (PFCE) associated with all derivatives transactions	19,755
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	1,057
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(29)
11	Total derivative exposures	35,367
SFT exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	44,139
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	–
14	CCR exposure for SFT assets	326
15	Agent transaction exposures	–
16	Total SFT exposures	44,465
Other Off Balance Sheet exposures		
17	Off Balance Sheet exposure at gross notional amount	200,722
18	(Adjustments for conversion to credit equivalent amounts)	(100,119)
19	Other Off Balance Sheet exposures	100,603
Capital and total exposures		
20	Tier 1 Capital	67,558
21	Total exposures	1,295,368
Leverage ratio		
22	Leverage ratio (%)	5.2

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 2022.

	Group Balance Sheet \$M	Adjustment ¹ \$M	Level 2 Regulatory Balance Sheet \$M	Template/ Reconciliation Table Reference
Assets				
Cash and liquid assets	161,154	(3)	161,151	
Receivables due from other financial institutions	6,845	–	6,845	
Assets at fair value through Income Statement	25,315	–	25,315	Table G
Derivative assets	35,736	–	35,736	
Investment securities:				
At amortised cost	3,217	–	3,217	
At fair value through Other Comprehensive Income	79,086	–	79,086	
Assets held for sale	1,322	(1,311)	11	
Loans, bills discounted and other receivables	878,854	(4,080)	874,774	
Investment in regulatory non-consolidated subsidiaries	–	242	242	Table G
Property, plant and equipment	4,887	–	4,887	
Investment in associates and joint ventures	2,801	–	2,801	Table G
Intangible assets	6,899	35	6,934	Table C
Deferred tax assets	3,173	–	3,173	Table D
Other assets	5,971	74	6,045	
Total assets	1,215,260	(5,043)	1,210,217	
Liabilities				
Deposits and other public borrowings	857,586	320	857,906	
Payables due to other financial institutions	26,052	–	26,052	
Liabilities at fair value through Income Statement	7,271	–	7,271	
Derivative liabilities	33,899	–	33,899	
Current tax liabilities	263	(1)	262	
Deferred tax liabilities	150	–	150	Table D
Liabilities held for sale	1,183	(1,183)	–	
Provisions	3,636	23	3,659	
Term funding from central banks	54,807	–	54,807	
Debt issues	116,902	(4,163)	112,739	
Bills payable and other liabilities	12,656	92	12,748	
Loan capital	28,017	–	28,017	Table E
Total liabilities	1,142,422	(4,912)	1,137,510	
Net assets	72,838	(131)	72,707	
Shareholders' Equity				
Ordinary Share capital	36,467	–	36,467	Row 1, Table A
Reserves	(460)	–	(460)	Row 3
Retained profits	36,826	(131)	36,695	Row 2
Shareholders' Equity attributable to Equity holders of the Bank	72,833	(131)	72,702	
Non-controlling interests	5	–	5	Table B
Total Shareholders' Equity	72,838	(131)	72,707	

¹ Reflects the deconsolidation of the insurance 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 22 \$M	Template Reference
Share Capital		
Ordinary Share Capital	36,467	
Total per Balance Sheet (Ordinary Share Capital Internationally Comparable) ¹	36,467	Row 1
Treasury Shares held by the Group's employee share scheme trusts (APRA specific adjustment)	26	Row 26a
Total Ordinary Share Capital and Treasury Shares (APRA)	36,493	

Table B	30 Jun 22 \$M	Template Reference
Non-Controlling Interests		
Total per Balance Sheet ¹	5	
Less other non controlling interests not included in capital	(5)	
Total per Capital Template (APRA and Internationally Comparable)	–	Row 5

Table C	30 Jun 22 \$M	Template Reference
Goodwill and Other Intangibles		
Total per Balance Sheet ¹	6,934	
Less capitalised software and other intangibles separately disclosed in template	(1,604)	
Total per Capital Template - Goodwill (APRA and Internationally Comparable)	5,330	Row 8
Other intangibles (including capitalised software) per Balance Sheet	1,604	
Less deferred tax liability associated with other intangibles	(56)	
Total per Capital Template - Other Intangibles (APRA and Internationally Comparable)	1,548	Row 9

Table D	30 Jun 22 \$M	Template Reference
Deferred Tax Assets		
Deferred tax assets per Balance Sheet ¹	3,173	
Less deferred tax liabilities per Balance Sheet ¹	(150)	
Net Deferred Tax Assets ²	3,023	
Adjustments required in accordance with APRA prudential standards ³	(7)	
Deferred tax asset adjustment before applying prescribed thresholds (APRA specific adjustment)	3,016	Row 26e
Less amounts below prescribed threshold - risk weighted ⁴	(3,016)	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 Disclosures Template and Regulatory Balance Sheet (continued)

Table E	30 Jun 22 \$M	Template Reference
Additional Tier 1 Capital		
Total Loan Capital per Balance Sheet ¹	28,017	
Add fair value hedge adjustments ²	2,098	
Total Loan Capital net of issue costs at their contractual values	30,115	
Less amount related to Tier 2 Capital Instruments	(19,623)	
Total Tier 1 Loan Capital	10,492	
Add issue costs ³	43	
Total per Capital Template (APRA)	10,535	Row 36
Additional Tier 1 Capital Instruments comprises		
Basel III Complying Instruments		
PERLS VII	3,000	
PERLS X	1,365	
PERLS XI	1,590	
PERLS XII	1,650	
PERLS XIII	1,180	
PERLS XIV	1,750	
Total Additional Tier 1 Capital Instruments (APRA)	10,535	Row 36

Table F	30 Jun 22 \$M	Template Reference
Tier 2 Capital Instruments		
Total included in Balance Sheet	19,623	
Less amount of Tier 2 debt issued by subsidiary ineligible for inclusion in the Group's Capital	–	
Add issue costs ³	41	
Less amortisation of instruments ⁴	(173)	
Total per Capital Template (APRA and Internationally Comparable)	19,491	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 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 Disclosures Template and Regulatory Balance Sheet (continued)

Table G	30 Jun 22 \$M	Template Reference
Equity Investments		
Investment in commercial entities	647	Row 26g
Investments in significant financial entities	2,484	Row 26d, 73
Investments in non-significant financial entities	1,520	Row 26d, 72
	4,651	
Equity investment in non-consolidated subsidiaries	242	Row 26d, 73
Total equity investments before applying prescribed thresholds APRA specific adjustment ¹	4,893	
Less amounts risk weighted under Internationally Comparable ²	(4,893)	
Total per Capital Template (Internationally Comparable)	–	Row 18, 19, 23

1 Equity investments are classified in the Level 2 Regulatory Balance Sheet across assets at fair value through income statement, investment securities, investment in regulatory non-consolidated subsidiaries and investment in associates and joint ventures. In addition, the Group has loans and 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 \$2,484 million, investments in non-significant financial entities of \$1,520 million and equity investment in non-consolidated subsidiaries of \$242 million is a total of \$4,246 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 \$647 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 ¹ \$M	Jurisdictional Buffer %	ADI Specific Buffer ² %	Template Reference
Country ³				
Hong Kong	311	1. 000	0. 000807	
Norway	160	1. 500	0. 000622	
Luxembourg	326	0. 500	0. 000423	
Others	384,279	–	–	
Total	385,076		0. 001852	Row 66

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

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

3 Represents country of ultimate risk as at 30 June 2022.

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	782	782
Medallion Trust Series 2017-2	972	972
Medallion Trust Series 2018-1	1,335	1,335
Medallion Trust Series 2018-1P	352	352
Medallion Trust Series 2019-1	736	736

Entity name	Total Assets \$M	Total Liabilities \$M
(b) Insurance		
CBA Captive Insurance Pte Ltd	130	20
Commonwealth Insurance Limited	1,455	1,191

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, 49 and Attachments A to H.

APS 330 Table	Title	Page No.
Para 12a	Regulatory Balance Sheet	84
Para 12b	Entities excluded from Level 2 Regulatory Consolidated Group	88
Para 12c and 12d	Reconciliation between Detailed Capital Disclosures Template and Regulatory Balance Sheet	85
Para 49 and 50	Summary Group Leverage Ratio	10
1	Detailed Capital Disclosures Template	80
1.2	Private sector credit exposures by geographic region (Countercyclical Capital Buffer)	87
2	Main features of capital instruments ¹	n/a
5a	Total securitisation activity for the reporting period	68
5b	Summary of total securitisation exposures retained or purchased	68
6b to 6f	Basel III Capital Requirements (RWA)	11
6e	Capital requirements for operational risk	75
6g	Capital ratios – Level 1 and Major Subsidiaries	8
7b	Credit risk exposure by portfolio type	25
7c	Credit risk exposure by portfolio type and geographic distribution	26
7d	Credit risk exposure by portfolio type and industry sector	27
7e	Credit risk exposure by portfolio type and residual contractual maturity	30
7f (i)	Impaired, past due, specific provisions and write-offs charged by industry sector	33
7f (ii)	Impaired, past due, specific provisions and write-offs charged by portfolio	35
7g (i)	Impaired, past due and specific provisions by geographic region	36
7g (ii)	GRCL by geographic region	36
7h (i)	Movement in collective provisions and general reserve for credit losses	37
7h (ii)	Movement in individual provisions and specific provisions	37
7i	Credit risk exposures by portfolio type and modelling approach	22
7j	General reserve for credit losses	32
8b	Exposures subject to standardised and supervisory risk weights	38
9b	Internal ratings structure for credit risk exposures and mapping to external ratings	41
9c	PD rating methodology by portfolio segment	41
9d (i)	Non-Retail exposures by portfolio type and PD band	42
9d (ii)	Retail exposures by portfolio type and PD band	45
9e	Actual losses by portfolio type	48
9f (i)	Historical loss analysis by portfolio type	49
9f (ii)	Accuracy of risk estimates – PD	50
9f (iii)	Accuracy of risk estimates – LGD and EAD	50
10b and 10c	Credit risk mitigation	52
11b (i)	Counterparty credit risk derivative exposure under the SA-CCR method	55
11b (ii)	Counterparty credit risk derivative exposure	56
11c	Counterparty credit risk derivative transactions	56
12g (i)	Banking book exposures securitised – traditional securitisation	59
12g (ii)	Banking book exposures securitised – synthetic securitisation	59
12h	Past due and impaired banking book exposures by asset type	60

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

Appendices (continued)

13.6 List of APRA APS 330 Tables (continued)

APS 330 Table	Title	Page No.
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12j	Banking book activity for the reporting period	61
12k	Banking book securitisation exposures retained or purchased	62
12l (i)	Banking book exposure by risk weighting	63
12l (ii)	Banking book exposure deducted entirely from capital	64
12m	Banking book exposures subject to early amortisation	64
12n	Banking book resecuritisation exposures	64
12o	Trading book exposures securitised	64
12p	Trading book exposures intended to be securitised	64
12q	Trading book activity for the reporting period	64
12r	Trading book exposures subject to APS 116	64
12s	Trading book exposures retained or purchased subject to APS 120	65
12t (i)	Trading book exposures retained/purchased subject to IMA	65
12t (ii)	Trading book exposures subject to APS 120 by risk weighting	66
12u (i)	RWA of trading book exposures retained/purchased subject to IMA	66
12u (ii)	Capital requirements (RWA) of trading book exposures subject to APS 120 by risk weighting	67
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¹ Details can be found at Commbank.com.au/regulatorydisclosures

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Appendices (continued)

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.
Advanced Internal Ratings-based (AIRB) Approach	This approach is 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.
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 RBNZ.
Australian Accounting Standards	The Australian Accounting Standards as issued by the Australian Accounting Standards Board (AASB).
Australian Prudential Regulation Authority (APRA)	The Australian Prudential Regulation Authority is an independent statutory authority that supervises institutions across banking, insurance and superannuation, and is accountable to the Australian parliament. The regulator of banks, insurance companies and superannuation funds, credit unions, building societies and friendly societies in Australia.
Authorised Deposit-taking Institution (ADI)	ADIs are corporations that are authorised under the <i>Banking Act 1959</i> to carry on banking business in Australia.
Banking Book	The banking book is a term for assets on a bank's Balance Sheet that are expected to be held to maturity, usually consisting of customer loans to and deposits from retail and corporate customers. The banking book can also include those derivatives that are used to hedge exposures arising from the banking book activity, including interest rate risk.
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. In September 2021, APRA announced a sector-wide phased reduction in usage of the CLF to zero by the end of 2022.

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 credit equivalent amount is a measure, prescribed by the regulator, to quantify credit risk for off Balance Sheet instruments, such as interest rate derivatives. The credit equivalent amount of a market related off Balance Sheet transaction calculated using the current exposure method is the sum of current credit exposure and potential future credit exposure of these contracts.
Credit Valuation Adjustment (CVA) Risk	The risk of mark-to-market losses related to deterioration in the credit quality of a derivative counterparty.
Exposure at Default (EAD)	The extent to which a bank may be exposed upon default of an obligor.
Extended Licenced Entity (ELE)	An Extended Licensed Entity is comprised of an ADI and each subsidiary of an ADI as specified in any approval granted by APRA in accordance with Prudential Standard APS 222 <i>Associations with Related Entities</i> .
External Credit Assessment Institution (ECAI)	For example: Moody's Investor Services, S&P Global Ratings or Fitch Ratings.
General Reserve for Credit Losses (GRCL)	From 1 January 2022 the Group adopted the revised APS 220 <i>Credit Risk Management</i> standard which no longer includes requirements in relation to the GRCL. The Group will continue to disclose the GRCL until APS 330 is amended to retire this disclosure referencing the former APS 220 <i>Credit Quality</i> standard's requirements, which required 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 under the former standard.
Group	Commonwealth Bank of Australia and its subsidiaries.
High Quality Liquid Assets (HQLA)	Assets are considered to be high quality liquid assets if they can be easily and immediately converted into cash at little or no loss of value.
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 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.

Appendices (continued)

13.8 Glossary (continued)

Term	Definition
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 businesses and certain 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).
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 PD reflects a borrower's ability to generate sufficient cash flows in the future to meet the terms of all of its credit obligations to the Group.
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.
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 securities financing transactions 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.

Appendices (continued)

13.8 Glossary (continued)

Term	Definition
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.
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	From 1 January 2022 the Group adopted the revised APS 220 <i>Credit Risk Management</i> standard which no longer includes requirements in relation to Specific Provisions. The Group will continue to disclose Specific Provisions until APS 330 is amended to retire this disclosure referencing the former APS 220 <i>Credit Quality</i> standard's requirements, which required 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 GRCL (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.
Term Funding Facility (TFF)	A facility provided by the RBA to certain ADIs to support lending to Australian businesses.
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 CET1, 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 <i>Capital Adequacy</i> (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.