Bank of New Zealand

Disclosure Statement

For the six months ended 31 March 2023

No. 99

Disclosure Statement

For the six months ended 31 March 2023

This Disclosure Statement has been issued by Bank of New Zealand for the six months ended 31 March 2023 in accordance with the Registered Bank Disclosure Statements (New Zealand Incorporated Registered Banks) Order 2014 (as amended) (the "Order").

In this Disclosure Statement, unless the context otherwise requires:

a) "Banking Group" means Bank of New Zealand's financial reporting group, which consists of Bank of New Zealand, all of its wholly owned entities and other entities consolidated for financial reporting purposes; and

b) Words and phrases defined by the Order have the same meanings when used in this Disclosure Statement.

Contents

Bank of New Zealand Corporate Information

Address for Service
The name of the Registered Bank is Bank of New Zealand (referred to either by its full name or as the "Bank"). The Bank's address for service is Level 4, 80 Queen Street, Auckland 1010, New Zealand.

Nature of Business
The Bank is a company domiciled in New Zealand. It was incorporated in New Zealand on 29 July 1861. The Banking Group provides a broad range of banking and financial products and services to retail, business, private, corporate and institutional customers.

Guarantees
Covered Bond Guarantee
Certain debt securities ("Covered Bonds") issued by the Bank, or its wholly owned controlled entity, BNZ International Funding Limited, acting through its London Branch ("BNZ-IF"), are guaranteed by CBG Trustee Company Limited, as trustee of the BNZ Covered Bond Trust (the "Covered Bond Guarantor"). The Covered Bond Guarantor has guaranteed the payment of all interest and principal under the Covered Bonds pursuant to a guarantee which is secured over a pool of assets. The Covered Bond Guarantor's address for service is Level 16, SAP Tower, 151 Queen Street, Auckland 1010, New Zealand.

The Covered Bond Guarantor is not a member of the Banking Group and has no credit ratings applicable to any senior unsecured obligations payable in New Zealand dollars. The Covered Bonds have been assigned a long term credit rating of Aaa and AAA from Moody's Investors Service Pty Limited and Fitch Australia Pty Limited, respectively. Refer to Note 6 *Loans and advances to customers* for further information. Further details about the above guarantee can be obtained by referring to the Bank's Disclosure Statement for the year ended 30 September 2022 which is available at www.bnz.co.nz.

Other material obligations of the Bank are not guaranteed.

Ultimate Parent Bank
Ultimate Parent Bank and Address for Service
The ultimate parent bank, and ultimate holding company, of Bank of New Zealand is National Australia Bank Limited ABN 12 004 044 937. National Australia Bank Limited's address for service is Level 28, 395 Bourke Street, Melbourne, Victoria 3000, Australia.

References in this document to "NAB" are references to National Australia Bank Limited's financial reporting group, which consists of National Australia Bank Limited, all of its wholly owned entities and other entities consolidated for financial reporting purposes.

Legally Enforceable Restrictions that may Materially Inhibit National Australia Bank Limited's Legal Ability to Provide Material Financial Support to Bank of New Zealand
National Australia Bank Limited does not guarantee the obligations of Bank of New Zealand.

Since 30 September 2022, there have been no material changes in regulations, legislation, or other restrictions of a legally enforceable nature that may materially inhibit the legal ability of National Australia Bank Limited to provide material financial support to the Bank. Refer to the Disclosure Statement for the year ended 30 September 2022 for full disclosure of legally enforceable restrictions that may materially inhibit National Australia Bank Limited's legal ability to provide material financial support to Bank of New Zealand.

Pending Proceedings or Arbitration
The Bank's Directors are of the opinion that there are no pending proceedings or arbitrations concerning any member of the Banking Group, whether in New Zealand or elsewhere, that may have a material adverse effect on the Registered Bank or the Banking Group.

Other Matters
The Bank's Directors are of the opinion that there are no other matters relating to the business or affairs of the Registered Bank or the Banking Group which would, if disclosed in this Disclosure Statement, materially affect the decision of a person to subscribe for debt securities of which the Registered Bank or any member of the Banking Group is the issuer.

Directorate
Warwick Ean Hunt was appointed as an Independent Non-Executive Director of the Bank, effective 1 November 2022.

Bruce Ronald Hassall retired as a Director of the Bank, effective 21 December 2022.

Louis Arthur Hawke will retire as a Director of the Bank, effective 31 July 2023.

Responsible Persons
Mr. Douglas Alexander McKay, ONZM, Non-Executive Director, Chair, and Mr. Daniel James Huggins, Executive Director, have been authorised in writing to sign this Disclosure Statement in accordance with section 82 of the Banking (Prudential Supervision) Act 1989 (the "BPS Act"), on behalf of the other Directors, being:

Barbara Joan Chapman
Louis Arthur Hawke
Warwick Ean Hunt
Kevin John Kenrick
Gary Andrew Lennon
Linley Ann Wood

Auditor
The auditor whose report is referred to in this Disclosure Statement is Ernst & Young. Ernst & Young's address for service is Level 9, EY Building, 2 Takutai Square, Britomart, Auckland 1010, New Zealand.

Income Statement

For the six months ended 31 March 2023

		Banking Group		
		Unaudited 6 Months	Audited 12 Months	Unaudited 6 Months
Dollars in Millions	Note	**31/3/23**	30/9/22	31/3/22
Interest income				
Effective interest income		**3,070**	3,800	1,583
Fair value through profit or loss		**156**	116	41
Interest expense		**1,762**	1,412	460
Net interest income		**1,464**	2,504	1,164
Gains less losses on financial instruments	2	**119**	251	143
Other operating income	3	**192**	376	191
Total operating income		**1,775**	3,131	1,498
Operating expenses		**577**	1,076	489
Total operating profit before credit impairment charge and income tax expense		**1,198**	2,055	1,009
Credit impairment charge	7	**79**	89	21
Total operating profit before income tax expense		**1,119**	1,966	988
Income tax expense on operating profit		**314**	552	279
Net profit attributable to the shareholder of the Bank		**805**	1,414	709

The accounting policies and other notes form part of, and should be read in conjunction with, these interim financial statements.

Statement of Comprehensive Income

For the six months ended 31 March 2023

	Banking Group		
	Unaudited 6 Months	Audited 12 Months	Unaudited 6 Months
Dollars in Millions	**31/3/23**	30/9/22	31/3/22
Net profit attributable to the shareholder of the Bank	**805**	1,414	709
Other comprehensive income/(expense):			
Items that will not be reclassified to profit or loss			
Movement in asset revaluation reserve	**-**	1	-
Credit risk adjustments on financial liabilities designated at fair value through profit or loss	**9**	70	67
Tax on items recognised in equity	**(2)**	(20)	(19)
	7	51	48
Items that may be reclassified subsequently to profit or loss			
Movement in cash flow hedge reserve	**(95)**	355	187
Movement in cost of hedging reserve	**(9)**	28	33
Tax on items recognised in equity	**29**	(108)	(62)
	(75)	275	158
Total other comprehensive income/(expense)	**(68)**	326	206
Total comprehensive income attributable to the shareholder of the Bank	**737**	1,740	915

The accounting policies and other notes form part of, and should be read in conjunction with, these interim financial statements.

Statement of Changes in Equity

For the six months ended 31 March 2023

	Banking Group						
	Unaudited 6 Months 31/3/23						
Dollars in Millions	Ordinary Capital	Retained Profits	Asset Revaluation Reserve	Cash Flow Hedge Reserve	Cost of Hedging Reserve	FVOCI Reserve	Total Share-holder's Equity
Balance at beginning of period	4,056	6,709	3	282	10	1	11,061
Comprehensive income/(expense)							
Net profit attributable to the shareholder of the Bank	-	805	-	-	-	-	805
Credit risk adjustments on financial liabilities designated at fair value through profit or loss	-	9	-	-	-	-	9
Reserve movement through other comprehensive income	-	-	-	(95)	(9)	-	(104)
Tax effect on items directly recognised in equity	-	(2)	-	27	2	-	27
Total comprehensive income/(expense)	-	812	-	(68)	(7)	-	737
Dividends paid on ordinary shares	-	(458)	-	-	-	-	(458)
Dividends paid on ordinary shares through dividend reinvestment[1]	-	(5,000)	-	-	-	-	(5,000)
Issue of ordinary shares through dividend reinvestment[1]	5,000	-	-	-	-	-	5,000
Balance at end of period	9,056	2,063	3	214	3	1	11,340
	Audited 12 Months 30/9/22						
Balance at beginning of year	4,056	5,805	2	27	(10)	1	9,881
Comprehensive income/(expense)							
Net profit attributable to the shareholder of the Bank	-	1,414	-	-	-	-	1,414
Credit risk adjustments on financial liabilities designated at fair value through profit or loss	-	70	-	-	-	-	70
Reserve movement through other comprehensive income	-	-	1	355	28	-	384
Tax effect on items directly recognised in equity	-	(20)	-	(100)	(8)	-	(128)
Total comprehensive income/(expense)	-	1,464	1	255	20	-	1,740
Dividends paid on ordinary shares	-	(560)	-	-	-	-	(560)
Balance at end of year	4,056	6,709	3	282	10	1	11,061
	Unaudited 6 Months 31/3/22						
Balance at beginning of period	4,056	5,805	2	27	(10)	1	9,881
Comprehensive income/(expense)							
Net profit attributable to the shareholder of the Bank	-	709	-	-	-	-	709
Credit risk adjustments on financial liabilities designated at fair value through profit or loss	-	67	-	-	-	-	67
Reserve movement through other comprehensive income	-	-	-	187	33	-	220
Tax effect on items directly recognised in equity	-	(19)	-	(53)	(9)	-	(81)
Total comprehensive income/(expense)	-	757	-	134	24	-	915
Dividends paid on ordinary shares	-	(325)	-	-	-	-	(325)
Balance at end of period	4,056	6,237	2	161	14	1	10,471

[1] Includes $5,000 million dividend on ordinary shares and equivalent share issue, refer to Note 12 *Contributed equity* for further information.

The accounting policies and other notes form part of, and should be read in conjunction with, these interim financial statements.

Balance Sheet
As at 31 March 2023

		Banking Group		
		Unaudited	Audited	Unaudited
Dollars in Millions	Note	**31/3/23**	30/9/22	31/3/22
Assets				
Cash and liquid assets	4	**9,427**	9,581	12,170
Due from central banks and other institutions[1]		**213**	372	284
Collateral paid[1]		**1,014**	2,814	683
Trading securities	5	**7,960**	7,414	7,103
Derivative financial instruments		**4,400**	9,540	3,823
Loans and advances to customers[1]	6	**100,963**	99,346	97,764
Amounts due from related entities	13	**357**	210	662
Other assets		**946**	1,013	493
Deferred tax		**304**	293	274
Property, plant and equipment		**421**	428	465
Goodwill and other intangible assets		**455**	409	338
Total assets		**126,460**	131,420	124,059
Liabilities				
Due to central banks and other institutions[1]	9	**6,252**	5,160	5,152
Collateral received[1]		**1,542**	2,134	1,041
Trading liabilities		**231**	302	591
Derivative financial instruments		**4,004**	8,228	3,926
Deposits and other borrowings[1]	10	**78,858**	78,154	79,900
Bonds and notes		**19,451**	20,181	18,864
Current tax liabilities		**95**	333	176
Amounts due to related entities	13	**1,195**	2,160	1,053
Other liabilities		**1,542**	1,757	935
Subordinated debt	11	**1,950**	1,950	1,950
Total liabilities		**115,120**	120,359	113,588
Net assets		**11,340**	11,061	10,471
Shareholder's equity				
Contributed equity – ordinary shares	12	**9,056**	4,056	4,056
Reserves		**221**	296	178
Retained profits	12	**2,063**	6,709	6,237
Total shareholder's equity		**11,340**	11,061	10,471
Interest earning and discount bearing assets		**118,005**	117,840	116,770
Interest and discount bearing liabilities		**94,375**	97,123	95,243

[1] Comparative balances as at 31 March 2022 have been restated to align with the presentation used in the current period. Refer to Note 1 *Principal accounting policies* for further information.

The accounting policies and other notes form part of, and should be read in conjunction with, these interim financial statements.

Cash Flow Statement

For the six months ended 31 March 2023

Dollars in Millions	Note	Banking Group Unaudited 6 Months 31/3/23	Banking Group Audited 12 Months 30/9/22	Banking Group Unaudited 6 Months 31/3/22
Cash flows from operating activities				
Interest income		3,170	3,852	1,602
Interest expense		(1,578)	(1,282)	(440)
Net trading income/(expense)		602	(519)	544
Other income		190	378	192
Personnel expenses		(379)	(665)	(351)
Other operating expenses		(164)	(295)	(146)
Taxes and subvention payments		(537)	(512)	(330)
Net cash flows from operating activities before changes in operating assets and liabilities		1,304	957	1,071
Changes in operating assets and liabilities arising from cash flow movements				
Net movement in due from central banks and other institutions		159	(68)	20
Net movement in collateral paid		1,926	(3,059)	(223)
Net movement in loans and advances to customers		(1,669)	(4,753)	(3,120)
Net movement in other assets		126	(50)	428
Net movement in trading securities and trading liabilities		(443)	(430)	226
Net movement in deposits and other borrowings		712	161	1,920
Net movement in due to central banks and other institutions		69	(288)	(15)
Net movement in collateral received		(630)	1,440	302
Net movement in other liabilities		(335)	590	(108)
Net change in operating assets and liabilities		(85)	(6,457)	(570)
Net cash flows from operating activities		1,219	(5,500)	501
Cash flows from investing activities				
Acquisition of intangible assets		(83)	(173)	(70)
Purchase of property, plant and equipment		(28)	(23)	(14)
Net cash flows from investing activities		(111)	(196)	(84)
Cash flows from financing activities				
Proceeds from issue of bonds and notes		1,937	5,328	3,483
Repayment of bonds and notes		(2,222)	(2,846)	(949)
Net movement in derivative financial instruments		(405)	2,339	346
Net movement in related entity funding		(895)	795	(620)
Payment of lease liabilities		(26)	(45)	(23)
Proceeds from repurchase agreements under RBNZ funding facilities		2,026	2,491	1,581
Repayment of repurchase agreements under RBNZ funding facilities		(766)	(1,702)	(976)
Ordinary dividend		(458)	(560)	(325)
Net cash flows from financing activities		(809)	5,800	2,517
Net movement in cash and cash equivalents		299	104	2,934
Cash and cash equivalents at beginning of period		7,308	7,204	7,204
Cash and cash equivalents at end of period		7,607	7,308	10,138
Cash and cash equivalents at end of period comprised:				
Cash and liquid assets	4	9,427	9,581	12,170
Due to central banks and other institutions classified as cash and cash equivalents	9	(1,163)	(1,400)	(1,304)
Amounts due from related entities classified as cash and cash equivalents	13	327	206	296
Amounts due to related entities classified as cash and cash equivalents	13	(984)	(1,079)	(1,024)
Total cash and cash equivalents		7,607	7,308	10,138

The accounting policies and other notes form part of, and should be read in conjunction with, these interim financial statements.

Notes to and Forming Part of the Interim Financial Statements

For the six months ended 31 March 2023

Note 1 Principal Accounting Policies

These interim financial statements are general purpose financial reports prepared in accordance with New Zealand Generally Accepted Accounting Practice as appropriate for profit oriented entities, the requirements of IAS 34 *Interim Financial Reporting*, NZ IAS 34 *Interim Financial Reporting* ("NZ IAS 34") and the Order, and should be read in conjunction with the Disclosure Statement for the year ended 30 September 2022.

Reclassification of financial information

Certain comparative balances have been reclassified to align with the presentation used in the current reporting period. Refer below for further details. These reclassifications have no impact on the overall financial performance or financial position for the comparative periods.

Presentation of collateral paid and collateral received

During the year ended 30 September 2022, the Banking Group changed the balance sheet presentation of collateral balances paid and received from financial institutions and other counterparties. The revised presentation resulted in two new balance sheet line items for collateral paid and collateral received, which include all collateral balances across the Banking Group with the exception of collateral balances with related parties. Collateral balances with related parties are reported within Amounts due from related entities and Amounts due to related entities. This presentation enhances the ability of users of the financial statements to understand collateral balances within the Banking Group. To align with this presentation, certain comparative balances as at 31 March 2022 have been restated.

Collateral paid as at 31 March 2022 is comprised of the following amounts:

- $643 million previously presented in Due from central banks and other institutions; and
- $40 million previously presented in Loans and advances to customers.

Collateral received as at 31 March 2022 is comprised of the following amounts:

- $506 million previously presented in Due to central banks and other institutions; and
- $535 million previously presented in Deposits and other borrowings.

Accounting for modification of loans

In response to severe weather events that occurred in New Zealand during January and February 2023, the Banking Group provided a number of assistance packages to impacted customers, including interest relief on loans to those most impacted by the events. This resulted in a loss of $11 million during the six months ended 31 March 2023 reflecting the effect of modification in contractual cashflows. The modification did not result in a derecognition of the respective loans.

Changes in accounting policies and disclosure

Accounting policies used in the preparation of these interim financial statements are consistent with the accounting policies used in the preparation of the Disclosure Statement for the year ended 30 September 2022, except as detailed below.

Recognition of ongoing trail commission payable to mortgage brokers on the balance sheet

During the six months ended 31 March 2023, the Banking Group revised its accounting treatment of ongoing trail commission payable to mortgage brokers. The Banking Group has recognised a liability within Other liabilities equal to the present value of expected future trail commission payments and a corresponding increase in capitalised brokerage costs within Loans and advances to customers. Comparative balances have not been restated.

Presentation of capitalised upfront commission paid to mortgage brokers

During the six months ended 31 March 2023, the Banking Group changed the presentation of capitalised upfront commission paid to mortgage brokers which are now included in Capitalised brokerage costs within Loans and advances to customers. Previously, capitalised upfront commission paid to mortgage brokers were included in Deferred and other unearned future income and expenses within Loans and advances to customers. This change in presentation enhances the ability of users of the financial statement to understand capitalised brokerage costs arising from the origination of housing loans.

This change has been applied retrospectively and impacted the prior period financial statements of the Banking Group as follows:

- a decrease of $43 million in Deferred and other unearned future income and expenses and an increase of $43 million in Capitalised brokerage costs as at 30 September 2022; and
- a decrease of $45 million in Deferred and other unearned future income and expenses and an increase of $45 million in Capitalised brokerage costs as at 31 March 2022.

Presentation of the cash flow statement

During the six months ended 31 March 2023, the Banking Group changed the presentation of its interim cash flow statement to contain the same level of disclosure as the cash flow statement in the Banking Group's full year Disclosure Statement. Previously, the interim cash flow statement was presented on a condensed basis in accordance with the minimum disclosure requirements of NZ IAS 34. This change in presentation enhances the ability of users to understand how the Banking Group generates and uses cash and cash equivalents during interim reporting periods.

Other developments – Interest Rate Benchmark ("IBOR") Reform

Following the cessation of certain IBOR benchmark rates from 1 January 2022, the Banking Group has transitioned all impacted financial instrument contracts to alternative reference rates. For contracts referencing USD IBOR benchmarks subject to cessation on 30 June 2023, to the extent such contracts do not mature before that date, fallback language or early termination are being discussed for execution ahead of the cessation date.

Critical accounting assumptions and estimates

The preparation of these interim financial statements requires the use of critical accounting estimates, judgements and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses. Unless explicitly stated, there have been no significant changes to the accounting estimates, judgements and assumptions used in preparing the interim financial statements compared to those applied in the preparation of the Disclosure Statement for the year ended 30 September 2022.

Notes to and Forming Part of the Interim Financial Statements

Income Statement Notes

Note 2 Gains Less Losses on Financial Instruments

	Banking Group		
	Unaudited 6 Months	Audited 12 Months	Unaudited 6 Months
Dollars in Millions	31/3/23	30/9/22	31/3/22
Trading gains less losses on financial instruments	109	160	82
Net gain/(loss) attributable to assets, liabilities and derivatives designated in hedge relationships	2	18	12
Net gain/(loss) in the fair value of derivatives used for hedging purposes not designated in hedge relationships	(16)	(1)	2
Net gain/(loss) in the fair value of financial assets designated at fair value through profit or loss and related derivatives[1, 2]	19	(7)	(7)
Net gain/(loss) in the fair value of financial liabilities designated at fair value through profit or loss and related derivatives (refer to table below)[2]	5	79	53
Other gains less losses on financial instruments	-	2	1
Total gains less losses on financial instruments	119	251	143
Net gain/(loss) in the fair value of financial liabilities designated at fair value through profit or loss and related derivatives includes[2]:			
Gain/(loss) attributable to derivatives used for hedging of financial liabilities designated at fair value through profit or loss	69	(564)	(299)
Gain/(loss) in the fair value of financial liabilities designated at fair value through profit or loss	(64)	643	352

[1] Included in Net gain/(loss) in the fair value of financial assets designated at fair value through profit or loss and related derivatives is a loss of $1 million in the fair value of financial assets designated at fair value through profit or loss excluding credit risk adjustments (30 September 2022: $2 million loss; 31 March 2022: $1 million loss).

[2] All foreign currency gains/(losses) are excluded from this category. Due to the Banking Group's practice of managing all foreign exchange risk centrally, all foreign currency gains/(losses) are included within Trading gains less losses on financial instruments above.

Note 3 Other Operating Income

	Banking Group		
	Unaudited 6 Months	Audited 12 Months	Unaudited 6 Months
Dollars in Millions	31/3/23	30/9/22	31/3/22
Money transfer fees	44	84	46
Fees earned on financial assets and liabilities	109	201	101
Fees earned on trust and other fiduciary activities	3	7	4
Net investment management income	7	15	8
Other income, other fees and commissions income	29	69	32
Total other operating income	192	376	191
Net investment management income includes:			
Investment management income	15	32	16
Investment management expenses	(8)	(17)	(8)

Asset Notes

Note 4 Cash and Liquid Assets

	Banking Group		
	Unaudited	Audited	Unaudited
Dollars in Millions	**31/3/23**	30/9/22	31/3/22
Coins, notes and cash at bank	**130**	143	192
Transaction balances with central banks	**8,719**	8,361	10,918
Transaction balances with other institutions	**454**	760	422
Securities purchased under agreements to resell with central banks	**-**	13	-
Securities purchased under agreements to resell with other institutions	**124**	304	638
Total cash and liquid assets	**9,427**	9,581	12,170

Where the Banking Group has accepted collateral arising from secured placements and reverse repurchase agreements, the Banking Group is obliged to return equivalent securities. Securities repledged by the Banking Group are strictly for the purposes of providing collateral for the counterparty. These transactions are conducted under terms that are usual for customary standard lending, and securities borrowing and lending activities.

The Banking Group has accepted collateral with a fair value of $427 million as at 31 March 2023 arising from reverse repurchase agreements included in Cash and liquid assets and Amounts due from related entities in Note 13 *Related entity transactions*, which it is permitted to sell or repledge (30 September 2022: $501 million; 31 March 2022: $885 million).

Government securities with a fair value of $13 million were repledged as at 31 March 2023 (30 September 2022: $18 million; 31 March 2022: $2 million). The Bank's obligation to repurchase government securities is disclosed in Note 9 *Due to central banks and other institutions* and included in Amounts due to related entities in Note 13 *Related entity transactions*.

Note 5 Trading Securities

	Banking Group		
	Unaudited	Audited	Unaudited
Dollars in Millions	**31/3/23**	30/9/22	31/3/22
Government bonds, notes and securities	**3,355**	3,509	3,880
Semi-government bonds, notes and securities	**2,849**	2,804	1,615
Corporate and other institutions bonds, notes and securities	**1,756**	1,101	1,608
Total trading securities	**7,960**	7,414	7,103

Included in Trading securities as at 31 March 2023 were $247 million encumbered through repurchase agreements (30 September 2022: $138 million; 31 March 2022: $519 million). These trading securities have not been derecognised by the Bank as the Bank retains substantially all the risks and rewards of ownership. Counterparties have the right to sell or repledge these encumbered securities. The Bank's obligation to repurchase trading securities is disclosed in Note 9 *Due to central banks and other institutions* and included in Amounts due to related entities in Note 13 *Related entity transactions*.

Note 6 Loans and Advances to Customers

	Banking Group		
	Unaudited	Audited	Unaudited
Dollars in Millions	31/3/23	30/9/22	31/3/22
Overdrafts	**2,261**	2,195	2,025
Credit card outstandings	**845**	825	793
Housing loans	**56,412**	54,823	54,503
Other term lending	**41,308**	41,409	40,470
Other lending[1]	**814**	840	709
Total gross loans and advances to customers	**101,640**	100,092	98,500
Deduct:			
Allowance for expected credit losses and credit risk adjustments (refer to Note 7)	**857**	812	782
Deferred and other unearned future income and expenses[2]	**(51)**	(53)	(48)
Capitalised brokerage costs[2,3]	**(150)**	(43)	(45)
Fair value hedge adjustments on housing loans	**21**	30	47
Total deductions	**677**	746	736
Total net loans and advances to customers	**100,963**	99,346	97,764

[1] Comparative balances as at 31 March 2022 have been restated to align with the presentation used in the current period. Refer to Note 1 *Principal accounting policies* for further information.

[2] Upfront brokerage costs previously presented within Deferred and other unearned future income and expenses are now included in the separate disclosure of Capitalised brokerage costs. Comparative balances have been restated accordingly. Refer to Note 1 *Principal accounting policies* for further information.

[3] The balance as at 31 March 2023 includes $105 million of capitalised brokerage costs reflecting the revised accounting treatment of trail commissions payable to mortgage brokers. Comparative balances have not been restated. Refer to Note 1 *Principal accounting policies* for further information.

As at 31 March 2023, included within the Banking Group's Loans and advances to customers were housing loans with a carrying amount of $20,826 million that have been transferred to consolidated structured entities but not derecognised in their entirety (30 September 2022: $21,104 million; 31 March 2022: $17,791 million). The Banking Group continues to recognise all of the transferred assets.

The Banking Group had issued debt securities with a face value of $5,378 million that were guaranteed by the BNZ Covered Bond Trust as at 31 March 2023 (30 September 2022: $5,613 million; 31 March 2022: $4,069 million). The underlying collateral that supports the guarantee provided by the BNZ Covered Bond Trust comprised housing loans, collections receivable and cash with a carrying amount of $6,279 million as at 31 March 2023 (30 September 2022: $6,550 million; 31 March 2022: $5,280 million). The fair value of the underlying collateral is approximately equal to the carrying amount due to its short term nature.

Note 7 Allowance for Expected Credit Losses

Expected Credit Losses ("ECL") are derived from unbiased and probability-weighted estimates of expected loss. The measurement of ECL and assessment of significant increase in credit risk considers information about current conditions, past events, as well as reasonable and supportable forecasts of future economic conditions.

The Banking Group's ECL measurement is derived from a probability weighted average of three distinct scenarios (base case, upside and downside) in addition to forward looking adjustments for emerging risk at an industry, geography or segment level. The probability of each scenario is determined by considering relevant macro-economic outlooks and their likely impact on the Banking Group's credit portfolios.

Key judgements and estimates

- In determining ECL, management judgement is applied, using objective, reasonable and supportable information about current and forecast economic conditions and granular probability of default and loss given default assumptions.
- Macro-economic factors taken into consideration include, but are not limited to, unemployment, interest rates, gross domestic product, inflation, commercial and residential property prices, and require an evaluation of both the current and forecast direction of the macro-economic cycle.
- When determining whether the risk of default has increased significantly since initial recognition, both quantitative and qualitative information is considered, including expert credit assessment, forward looking information and analysis based on the Banking Group's historical loss experience.

Movement in allowance for expected credit losses

The total allowance for ECL increased by $64 million compared to the balance as at 30 September 2022 due to a respective increase in collectively assessed allowance. The main drivers are an increase in collectively assessed allowance for residential mortgage lending of $34 million due to a decline in house prices impacting loan-to-valuation ratios, and an increase in collectively assessed allowance for corporate exposures of $27 million, predominantly driven by an increase in the base case economic adjustment reflecting the deteriorating economic environment and the impact of severe weather events that occurred in New Zealand during January and February 2023.

Note 7 Allowance for Expected Credit Losses *continued*

The following table for the six months ended 31 March 2023 is prescribed by the Order and is broken down between Residential mortgage lending, Other retail exposures and Corporate exposures. The table provides a reconciliation from the opening balance to the closing balance of allowance for ECL and shows the movement in opening balance where financial assets have transferred between ECL stages and subsequent remeasurement of the allowance for ECL during the period.

	Banking Group				
	Unaudited (31/3/23)				
	Collectively assessed allowance			Individually assessed allowance	
Dollars in Millions	Stage 1	Stage 2	Stage 3	Stage 3	Total
Movement in Allowance for ECL					
Residential mortgage lending					
Balance at beginning of period	12	66	19	1	98
Changes to the opening balance due to transfer between ECL stages:					
Transferred to 12-months ECL - collectively assessed allowance	1	(1)	-	-	-
Transferred to Lifetime ECL not credit impaired - collectively assessed allowance	-	1	(1)	-	-
Transferred to Lifetime ECL credit impaired - collectively assessed allowance	-	-	-	-	-
Transferred to Lifetime ECL credit impaired - individually assessed allowance	-	-	-	-	-
Charge/(credit) to income statement due to new and increased provisions (net of releases)[1]	19	2	12	1	34
Amounts written off	-	-	-	-	-
Recovery of amounts written off	-	-	-	-	-
Balance at end of period - Residential mortgage lending	32	68	30	2	132
Other retail exposures					
Balance at beginning of period	9	18	11	2	40
Changes to the opening balance due to transfer between ECL stages:					
Transferred to 12-months ECL - collectively assessed allowance	2	(2)	-	-	-
Transferred to Lifetime ECL not credit impaired - collectively assessed allowance	(1)	2	(1)	-	-
Transferred to Lifetime ECL credit impaired - collectively assessed allowance	-	(1)	1	-	-
Transferred to Lifetime ECL credit impaired - individually assessed allowance	-	-	(2)	2	-
Charge/(credit) to income statement due to new and increased provisions (net of releases)[1]	(2)	7	1	2	8
Amounts written off	-	-	-	(8)	(8)
Recovery of amounts written off	-	-	-	3	3
Balance at end of period - Other retail exposures	8	24	10	1	43
Corporate exposures					
Balance at beginning of period	46	487	46	70	649
Changes to the opening balance due to transfer between ECL stages:					
Transferred to 12-months ECL - collectively assessed allowance	11	(10)	(1)	-	-
Transferred to Lifetime ECL not credit impaired - collectively assessed allowance	(5)	8	(3)	-	-
Transferred to Lifetime ECL credit impaired - collectively assessed allowance	-	(4)	4	-	-
Transferred to Lifetime ECL credit impaired - individually assessed allowance	-	(2)	(3)	5	-
Charge/(credit) to income statement due to new and increased provisions (net of releases)[1]	(9)	20	21	5	37
Amounts written off	-	-	-	(9)	(9)
Recovery of amounts written off	-	-	-	-	-
Discount unwind[2]	-	-	-	(1)	(1)
Balance at end of period - Corporate exposures	43	499	64	70	676
Total					
Balance at beginning of period	67	571	76	73	787
Changes to the opening balance due to transfer between ECL stages:					
Transferred to 12-months ECL - collectively assessed allowance	14	(13)	(1)	-	-
Transferred to Lifetime ECL not credit impaired - collectively assessed allowance	(6)	11	(5)	-	-
Transferred to Lifetime ECL credit impaired - collectively assessed allowance	-	(5)	5	-	-
Transferred to Lifetime ECL credit impaired - individually assessed allowance	-	(2)	(5)	7	-
Charge/(credit) to income statement due to new and increased provisions (net of releases)[1]	8	29	34	8	79
Amounts written off	-	-	-	(17)	(17)
Recovery of amounts written off	-	-	-	3	3
Discount unwind[2]	-	-	-	(1)	(1)
Total balance at end of period	83	591	104	73	851

[1] Classified as credit impairment charge in the income statement.

[2] The impairment loss on an impaired asset is calculated as the difference between the asset's carrying amount and the estimated future cash flows discounted to its present value using the original effective interest rate for the asset. This discount unwinds through interest income over the period the asset is held.

Note 7 Allowance for Expected Credit Losses *continued*

The following table summarises the changes in the gross carrying amounts of loans and advances to customers at amortised cost to explain changes in the Banking Group's allowance for ECL for the period.

	Banking Group				
	Unaudited (31/3/23)				
	Collectively assessed allowance			Individually assessed allowance	
Dollars in Millions	Stage 1	Stage 2	Stage 3	Stage 3	Total
Movement in gross loans and advances to customers					
Residential mortgage lending					
Gross carrying amount at beginning of period	50,558	3,975	285	5	54,823
Transfers					
Transferred to collectively assessed 12-months ECL	391	(325)	(66)	-	-
Transferred to collectively assessed lifetime ECL not credit impaired	(668)	805	(137)	-	-
Transferred to collectively assessed lifetime ECL credit impaired	(111)	(147)	258	-	-
Transferred to individually assessed lifetime ECL credit impaired	-	(2)	(2)	4	-
Net further lending/(repayment)	(1,258)	(14)	1	-	(1,271)
Additions	5,632	-	-	-	5,632
Deletions	(2,702)	(34)	(33)	(3)	(2,772)
Amounts written off	-	-	-	-	-
Total gross carrying amount at end of period	51,842	4,258	306	6	56,412
Allowance for ECL	32	68	30	2	132
Total net carrying amount at end of period	51,810	4,190	276	4	56,280
Other retail exposures					
Gross carrying amount at beginning of period	1,946	160	15	4	2,125
Transfers					
Transferred to collectively assessed 12-months ECL	70	(68)	(2)	-	-
Transferred to collectively assessed lifetime ECL not credit impaired	(158)	163	(5)	-	-
Transferred to collectively assessed lifetime ECL credit impaired	(6)	(5)	11	-	-
Transferred to individually assessed lifetime ECL credit impaired	-	(1)	(1)	2	-
Net further lending/(repayment)	(2)	(45)	2	8	(37)
Additions	244	-	-	-	244
Deletions	(190)	(27)	(8)	(2)	(227)
Amounts written off	-	-	-	(8)	(8)
Total gross carrying amount at end of period	1,904	177	12	4	2,097
Allowance for ECL	8	24	10	1	43
Total net carrying amount at end of period	1,896	153	2	3	2,054
Corporate exposures					
Gross carrying amount at beginning of period	13,823	28,202	321	125	42,471
Transfers					
Transferred to collectively assessed 12-months ECL	2,169	(2,162)	(6)	(1)	-
Transferred to collectively assessed lifetime ECL not credit impaired	(6,576)	6,607	(30)	(1)	-
Transferred to collectively assessed lifetime ECL credit impaired	(157)	(226)	383	-	-
Transferred to individually assessed lifetime ECL credit impaired	(81)	(21)	(14)	116	-
Net further lending/(repayment)	1,090	1,198	(4)	7	2,291
Additions	5,770	-	-	-	5,770
Deletions	(2,327)	(5,311)	(166)	(58)	(7,862)
Amounts written off	-	-	-	(10)	(10)
Total gross carrying amount at end of period	13,711	28,287	484	178	42,660
Allowance for ECL	43	499	64	70	676
Total net carrying amount at end of period	13,668	27,788	420	108	41,984
Total					
Gross carrying amount at beginning of period	66,327	32,337	621	134	99,419
Transfers					
Transferred to collectively assessed 12-months ECL	2,630	(2,555)	(74)	(1)	-
Transferred to collectively assessed lifetime ECL not credit impaired	(7,402)	7,575	(172)	(1)	-
Transferred to collectively assessed lifetime ECL credit impaired	(274)	(378)	652	-	-
Transferred to individually assessed lifetime ECL credit impaired	(81)	(24)	(17)	122	-
Net further lending/(repayment)	(170)	1,139	(1)	15	983
Additions	11,646	-	-	-	11,646
Deletions	(5,219)	(5,372)	(207)	(63)	(10,861)
Amounts written off	-	-	-	(18)	(18)
Total gross carrying amount at end of period	67,457	32,722	802	188	101,169
Allowance for ECL	83	591	104	73	851
Total net carrying amount at end of period	67,374	32,131	698	115	100,318

Note 7 Allowance for Expected Credit Losses *continued*

Impact of changes in gross carrying amount on ECL

Residential mortgage lending

Residential mortgage lending gross carrying amount increased by $1,589 million in the six months ended 31 March 2023, with associated ECL increasing by $34 million. The movement in ECL reflects an increase in the gross carrying amount, as well as an overall increase in provision coverage rates. This is due to higher interest rates impacting debt serviceability ratios, and a decline in house prices impacting loan-to-valuation ratios.

Other retail exposures

Other retail exposures gross carrying amount decreased by $28 million in the six months ended 31 March 2023, with associated ECL increasing by $3 million. The movement in ECL reflects the recovery of amounts previously written off.

Corporate exposures

Corporate exposures gross carrying amount increased by $189 million in the six months ended 31 March 2023, with associated ECL increasing by $27 million. The movement in ECL is driven by an increase in the base case economic adjustment reflecting the deteriorating economic environment. Included in the collectively assessed ECL is $18 million relating to assets impacted by severe weather events that occurred in New Zealand during January and February 2023, with these loans receiving a Stage 3 collectively assessed allowance.

ECL scenario analysis

The Banking Group's forecasts assume the following key macro-economic variables used in the upside, base case and downside scenario as at 31 March 2023.

	Upside (%) Unaudited			Base Case (%) Unaudited			Downside (%) Unaudited		
	FY 2023	FY 2024	FY 2025	FY 2023	FY 2024	FY 2025	FY 2023	FY 2024	FY 2025
Macro-economic indicators[1]									
Gross domestic product change year on year	0.4	1.5	2.8	(0.5)	0.6	2.6	(3.0)	(2.0)	(0.0)
Unemployment	3.7	5.3	5.3	3.8	5.7	5.8	5.6	8.1	9.3
House price change year on year	(10.4)	4.8	5.0	(10.6)	2.3	4.1	(21.9)	(18.6)	(8.7)

[1] Macro-economic indicators represent annual change from September to September.

The probability weighted ECL is a blended outcome taking into consideration the respective scenarios applied across each of the Banking Group's major loan portfolios. The following table shows the probability weighting of scenarios.

	Upside (%) Unaudited		Base case (%) Unaudited		Downside (%) Unaudited	
	HY 2023	FY 2022	HY 2023	FY 2022	HY 2023	FY 2022
Macro-economic scenario weightings						
Retail	2.5	2.5	52.5	52.5	45.0	45.0
Non-Retail	2.5	2.5	52.5	52.5	45.0	45.0

Sensitivity analysis

The following table shows the reported total allowance for ECL based on the probability weighting of scenarios, with the sensitivity range reflecting the ECL impacts assuming a 100% weighting is applied to the upside scenario, base case scenario or the downside scenario (with all other assumptions held constant).

	Banking Group		
	Unaudited	Unaudited	Unaudited
Dollars in Millions	31/3/23	30/9/22	31/3/22
Reported probability weighted ECL	851	787	756
100% upside ECL	618	472	601
100% base case ECL	631	549	601
100% downside ECL	1,123	1,083	943

Note 7 Allowance for Expected Credit Losses *continued*

Credit risk adjustment on financial assets designated at fair value through profit or loss

The changes in value of financial assets designated at fair value through profit or loss that are attributable to changes in credit risk have been calculated using a statistical-based calculation that estimates expected losses attributable to adverse movement in credit risks.

Credit risk adjustments on financial assets designated at fair value through profit or loss are analysed in the following table.

	Banking Group			
	Unaudited (31/3/23)			
Dollars in Millions	Residential Mortgage Lending	Other Retail Exposures	Corporate Exposures	Total
Credit risk adjustment on individual financial assets				
Loans and advances to customers				
Balance at beginning of period	-	-	19	19
Charge/(credit) to income statement	-	-	(19)	(19)
Balance at end of period	-	-	-	-
Credit risk adjustment on groups of financial assets				
Loans and advances to customers				
Balance at beginning of period	-	-	6	6
Charge/(credit) to income statement	-	-	-	-
Balance at end of period	-	-	6	6
Total credit risk adjustments on loans and advances designated at fair value through profit or loss	-	-	6	6
Trading derivative financial instruments				
Balance at beginning of period	-	-	17	17
Charge/(credit) to income statement	-	-	(7)	(7)
Balance at end of period	-	-	10	10
Total credit risk adjustments on trading derivative financial instruments	-	-	10	10

Note 8 Asset Quality

The Banking Group provides for credit impairment as disclosed in Note 7 *Allowance for expected credit losses*. Accordingly, when management determines that a loan is not expected to be recovered in full, the principal amount and accrued interest on the obligation are written down to the estimated net realisable value.

Total individually impaired assets were $188 million as at 31 March 2023, which comprise of loans and advances to customers subject to individually assessed allowance, as disclosed in Note 7 *Allowance for expected credit losses*, and individual financial assets designated at fair value through profit or loss subject to credit risk adjustments, as disclosed in the table below.

		Banking Group			
		Unaudited (31/3/23)			
Dollars in Millions	Note	Residential Mortgage Lending	Other Retail Exposures	Corporate Exposures	Total
Individual financial assets designated at fair value through profit or loss subject to credit risk adjustments					
Balance at beginning of period		-	-	33	33
Additions		-	-	-	-
Deletions		-	-	(33)	(33)
Balance at end of period		-	-	-	-
Credit risk adjustments on individual financial assets designated at fair value through profit or loss	7	-	-	-	-

	Banking Group			
	Unaudited (31/3/23)			
Dollars in Millions	Residential Mortgage Lending	Other Retail Exposures	Corporate Exposures	Total
Individually impaired assets - undrawn lending commitments				
At amortised cost	-	1	2	3
At fair value through profit or loss	-	-	-	-
Other assets under administration	-	-	8	8

	Banking Group			
	Unaudited (31/3/23)			
Dollars in Millions	Residential Mortgage Lending	Other Retail Exposures	Corporate Exposures	Total
Past due assets not individually impaired				
Loans and advances to customers				
1 - 7 days past due	162	30	155	347
8 - 29 days past due	119	15	90	224
1 - 29 days past due	281	45	245	571
30 - 59 days past due	71	7	54	132
60 - 89 days past due	37	3	17	57
90+ days past due	93	12	145	250
Total past due assets not individually impaired	482	67	461	1,010

Liability Notes

Note 9 Due to Central Banks and Other Institutions

	Banking Group		
	Unaudited	Audited	Unaudited
Dollars in Millions	**31/3/23**	30/9/22	31/3/22
Transaction balances with other institutions[1]	**928**	1,250	1,032
Deposits from central banks[2]	**87**	79	105
Deposits from other institutions[2,3]	**370**	229	475
Securities sold under agreements to repurchase from central banks[4]	**4,713**	3,453	3,269
Securities sold under agreements to repurchase from other institutions[1]	**154**	149	271
Total due to central banks and other institutions	**6,252**	5,160	5,152

[1] Classified as cash and cash equivalents in the cash flow statement.
[2] Comparative balances as at 31 March 2022 have been restated to align with the presentation used in the current period. Refer to Note 1 *Principal accounting policies* for further information.
[3] Included in deposits from other institutions as at 31 March 2023 was $81 million classified as cash and cash equivalents in the cash flow statement (30 September 2022: $1 million; 31 March 2022: $1 million).
[4] Included in securities sold under agreements to repurchase from central banks was $1,264 million (30 September 2022: $1,353 million; 31 March 2022: $1,519 million) relating to Term Lending Facility and $3,449 million (30 September 2022: $2,100 million; 31 March 2022: $1,750 million) relating to Funding for Lending Programme.

Note 10 Deposits and Other Borrowings

	Banking Group		
	Unaudited	Audited	Unaudited
Dollars in Millions	**31/3/23**	30/9/22	31/3/22
Deposits not bearing interest	**15,003**	12,784	13,247
On-demand and short term deposits bearing interest[5]	**28,983**	33,295	35,018
Term deposits	**30,585**	28,126	25,260
Total customer deposits	**74,571**	74,205	73,525
Certificates of deposit	**2,275**	1,661	2,464
Commercial paper	**2,012**	2,288	3,911
Total deposits and other borrowings	**78,858**	78,154	79,900

[5] Comparative balances as at 31 March 2022 has been restated to align with the presentation used in the current period. Refer to Note 1 *Principal accounting policies* for further information.

Note 11 Subordinated Debt

	Banking Group		
	Unaudited	Audited	Unaudited
Dollars in Millions	**31/3/23**	30/9/22	31/3/22
Subordinated Notes due to related entity	**1,050**	1,050	1,050
Perpetual Notes due to related entity	**900**	900	900
Total subordinated debt	**1,950**	1,950	1,950

2028 Subordinated Notes due to related entity - treated as Tier 2 capital

On 8 May 2018, the Bank issued $500 million of subordinated unsecured notes ("2028-Subordinated Notes") to National Australia Bank Limited. The 2028-Subordinated Notes are treated as Tier 2 capital under the Bank's regulatory capital requirements and are subject to a transitional phase-out from 1 January 2022. For further information refer to Note 19 *Capital adequacy*. The 2028-Subordinated Notes will mature on 8 May 2028. The 2028-Subordinated Notes do not confer any right to vote in general meetings of the Bank or National Australia Bank Limited.

Redemption

Subject to certain conditions, including the approval of the Reserve Bank of New Zealand ("RBNZ"), the Bank has the option to redeem all or some of the 2028-Subordinated Notes for their face value together with accrued interest (if any) on any interest payment date on or after 8 May 2023. In addition, subject to certain conditions, including the approval of the RBNZ, the Bank may redeem at any time all (but not some only) of the 2028-Subordinated Notes if a regulatory or tax event occurs.

Interest

The interest rate for the 2028-Subordinated Notes is reset every six months based on the prevailing six-month bank bill rate plus a margin of 1.95% per annum for the term of the 2028-Subordinated Notes. Interest is payable semi-annually in arrear subject to the Bank being solvent (by satisfying the solvency test in section 4 of the Companies Act 1993) on the relevant payment date and remaining solvent immediately after making the payment. If the Bank does not pay an amount on the 2028-Subordinated Notes because it has not satisfied the solvency test, the Bank must pay that amount on the first date on which it is able to make the payment and satisfy the solvency test.

Interest will accrue daily (at the interest rate then applicable to the 2028-Subordinated Notes) on any interest that is not paid when scheduled as a result of the Bank not satisfying the solvency test on the relevant payment date. If some or all of the 2028-Subordinated Notes are converted or written off, any rights to receive interest on those 2028-Subordinated Notes (including any accrued but unpaid interest) are also terminated and written off.

Conversion

If a non-viability trigger event ("NVTE") occurs, some or all of the 2028-Subordinated Notes will automatically and immediately be converted into ordinary shares in the Bank ("BNZ Shares") or written off.

Under the terms and conditions of the 2028-Subordinated Notes, an NVTE will occur if: (i) the RBNZ gives the Bank a direction under the BPS Act requiring the Bank to exercise its right of conversion or write off of its Tier 2 capital instruments; or (ii) the Bank is subject to statutory management under the BPS Act and the New Zealand statutory manager announces his or her decision, to convert or write off the Bank's Tier 2 capital instruments.

Ranking of 2028-Subordinated Notes

In a liquidation of the Bank (if the 2028-Subordinated Notes have not been converted or written off), the claims of holders of 2028-Subordinated Notes will rank: (1) ahead of claims of holders of BNZ Shares and other subordinated securities that rank below the 2028-Subordinated Notes (such as the Perpetual Notes due to related entity); (2) equally with claims of other holders of 2028-Subordinated Notes, the holders of the 2031-Subordinated Notes and holders of other subordinated securities that rank equally with the 2028-Subordinated Notes; and (3) behind all other claims (such as those of the Bank's secured creditors, depositors and holders of unsecured unsubordinated bonds issued by the Bank from time to time). If the 2028-Subordinated Notes are converted into BNZ Shares, holders will rank equally with existing shareholders of the Bank.

2031 Subordinated Notes due to related entity - treated as Tier 2 capital

On 25 June 2021, the Bank issued $550 million of subordinated unsecured notes ("2031-Subordinated Notes") to National Australia Bank Limited. The 2031-Subordinated Notes are treated as Tier 2 capital under the Bank's regulatory capital requirements. The 2031-Subordinated Notes will mature on 25 June 2031. The 2031-Subordinated Notes do not confer any right to vote in general meetings of the Bank or National Australia Bank Limited.

Redemption

Subject to certain conditions, including the approval of the RBNZ, the Bank has the option to redeem all or some of the 2031-Subordinated Notes for their face value together with accrued interest (if any) on any interest payment date on or after 25 June 2026. In addition, subject to certain conditions, including the approval of the RBNZ, the Bank may redeem at any time all (but not some only) of the 2031-Subordinated Notes if a regulatory or tax event occurs.

Interest

The interest rate for the 2031-Subordinated Notes is reset every three months based on the prevailing three-month bank bill rate plus a margin of 1.36% per annum for the term of the 2031-Subordinated Notes. Interest is payable quarterly in arrear subject to the Bank being solvent (by satisfying the solvency test in section 4 of the Companies Act 1993) on the relevant payment date and remaining solvent immediately after making the payment. If the Bank does not pay an amount on the 2031-Subordinated Notes because it has not satisfied the solvency test, the Bank must pay that amount on the first date on which it is able to make the payment and satisfy the solvency test.

Interest will accrue daily (at the interest rate then applicable to the 2031-Subordinated Notes) on any interest that is not paid when scheduled as a result of the Bank not satisfying the solvency test on the relevant payment date.

Note 11 Subordinated Debt *continued*

Ranking of 2031-Subordinated Notes

In a liquidation of the Bank, the claims of holders of 2031-Subordinated Notes will rank: (1) ahead of claims of holders of BNZ Shares and other subordinated securities that rank below the 2031-Subordinated Notes (such as the Perpetual Notes due to related entity); (2) equally with claims of other holders of 2031-Subordinated Notes, the holders of the 2028-Subordinated Notes and holders of other subordinated securities that rank equally with the 2031-Subordinated Notes; and (3) behind all other claims (such as those of the Bank's secured creditors, depositors and holders of unsecured unsubordinated bonds issued by the Bank from time to time).

Perpetual Notes due to related entity - treated as Additional Tier 1 capital

On 20 October 2016, the Bank issued $900 million of mandatorily convertible subordinated perpetual unsecured notes ("Perpetual Notes") to National Australia Bank Limited. The Perpetual Notes are treated as Additional Tier 1 capital under the Bank's regulatory capital requirements and are subject to a transitional phase out from 1 January 2022. For further information refer to Note 19 *Capital adequacy*. The Perpetual Notes have no fixed maturity date and will remain on issue indefinitely if not repaid, converted or written off. The Perpetual Notes do not confer any right to vote in general meetings of the Bank or National Australia Bank Limited.

Interest

From 20 October 2021, the interest rate for the Perpetual Notes changed from a fixed rate of 6.7539% per annum to a floating interest rate equal to the three-month bank bill rate plus a margin of 4.410% per annum.

Interest is payable quarterly in arrear subject to the Bank's discretion and certain conditions being satisfied (including RBNZ requirements). If interest is not paid, the Bank may not (except in limited circumstances) pay any dividends on BNZ Shares or undertake a share buy-back or other capital reduction until interest is next paid. Unpaid interest is cancelled and does not accumulate.

Conversion

On 20 October 2023, subject to certain mandatory conversion conditions, all of the Perpetual Notes will be converted into BNZ Shares. If the mandatory conversion conditions are not met, the mandatory conversion will be deferred for a specific period (provided that conversion is not required to take place as a result of a common equity trigger event ("CETE") or an NVTE).

The number of BNZ Shares issued on a conversion is determined by reference to the net assets of the Bank in the Bank's most recently published Disclosure Statement and such other information as the Bank considers appropriate.

On any date that a regulatory or tax event occurs, the Bank may convert or redeem some or all of the Perpetual Notes. Any such conversion or redemption is subject to certain conditions, including in the case of redemption the approval of the RBNZ.

If a CETE or an NVTE occurs, the Bank must convert some or all of the Perpetual Notes into BNZ Shares. Under the terms and conditions of the Perpetual Notes, a CETE will occur if the Banking Group's Common Equity Tier 1 capital ratio is equal to or less than 5.125% and an NVTE will occur if the RBNZ directs the Bank to convert or write off the Perpetual Notes, or the Bank is made subject to statutory management and the statutory manager decides the Bank must convert or write off the Perpetual Notes.

Ranking of Perpetual Notes

In a liquidation of the Bank (if the Perpetual Notes have not been converted or written off), the claims of holders of Perpetual Notes will rank: (1) ahead of claims of holders of BNZ Shares and other subordinated securities that rank below the Perpetual Notes; (2) equally with claims of other holders of Perpetual Notes and holders of other subordinated securities that rank equally with the Perpetual Notes; and (3) behind all other claims on the Bank (such as those of the Bank's secured creditors, depositors and holders of the Subordinated Notes, and other unsecured unsubordinated bonds issued by the Bank from time to time). If the Perpetual Notes are converted into BNZ Shares, holders will rank equally with existing shareholders of the Bank.

Recent Development

On 8 May 2023, the Bank exercised its option to fully redeem the 2028-Subordinated Notes prior to the scheduled maturity date of 8 May 2028.

Notes to and Forming Part of the Interim Financial Statements

Shareholder's Equity Note

Note 12 Contributed Equity

Number of shares in Millions	Banking Group Unaudited 31/3/23	Banking Group Audited 30/9/22	Banking Group Unaudited 31/3/22
Issued and fully paid ordinary shares			
Balance at beginning of period	5,076	5,076	5,076
Issued during the period	5,000	-	-
Balance at end of period	10,076	5,076	5,076

The issued and fully paid ordinary share capital is included in Tier 1 capital of the Banking Group and the Registered Bank (refer to Note 19 *Capital adequacy*).

Ordinary shares

The ordinary shares do not have a par value. All ordinary shares have equal voting rights and share equally in dividends and any distribution of the surplus assets of the Bank in the event of liquidation.

On 30 March 2023, the Bank paid a dividend of $5,000 million and issued 5,000 million ordinary shares to National Australia Group (NZ) Limited at a subscription price of $1.00 per share under a dividend reinvestment plan. This resulted in the number of the Bank's ordinary shares increasing from 5,075,997,499 to 10,075,997,499 and the Bank's ordinary share capital increasing by $5,000 million.

Other Notes

Note 13 Related Entity Transactions

Dollars in Millions	Banking Group Unaudited 31/3/23	Banking Group Audited 30/9/22	Banking Group Unaudited 31/3/22
Balances with related entities			
Amounts due from related entities[1]	357	210	662
Derivative financial assets with related entities	1,610	3,997	1,202
Amounts due to related entities[2]	1,195	2,160	1,053
Derivative financial liabilities with related entities	1,455	3,112	1,576
Subordinated debt due to related entities (refer to Note 11)	1,950	1,950	1,950

[1] Included in amounts due from related entities as at 31 March 2023 was $327 million classified as cash and cash equivalents in the cash flow statement (30 September 2022: $206 million; 31 March 2022: $296 million).

[2] Included in amounts due to related entities as at 31 March 2023 was $984 million classified as cash and cash equivalents in the cash flow statement (30 September 2022: $1,079 million; 31 March 2022: $1,024 million).

Included within the amounts due from and due to related entities were the following balances:

Dollars in Millions	Banking Group Unaudited 31/3/23	Banking Group Audited 30/9/22	Banking Group Unaudited 31/3/22
Amounts due from related entities			
Collateral paid to ultimate parent to meet standard derivative trading obligations	-	-	339
Securities purchased under agreements to resell to ultimate parent	306	184	242
Amounts due to related entities			
Deposit from controlled entity of ultimate parent	820	972	739
Collateral received from ultimate parent to meet derivative trading obligations	171	1,045	-
Securities sold under agreements to repurchase from ultimate parent	103	9	248

Other transactions with related entities

Dividends paid to the shareholder, if any, are disclosed in the statement of changes in equity.

Note 14 Fair Value of Financial Instruments

For the purposes of this note, carrying amount refers to amounts reflected on the balance sheet.

Hierarchy for fair value measurements

The tables on pages 20 and 21 present a three-level fair value hierarchy of the Banking Group's financial instruments.

The three levels in the hierarchy are based on the valuation methods and assumptions used in determining the fair values of financial instruments. The levels are as follows:

- Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 – Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Management uses its judgement in selecting an appropriate valuation technique for financial instruments which are not quoted in an active market.

The Banking Group considers transfers between levels of the fair value hierarchy, if any, to have occurred at the beginning of the respective reporting period. There were no transfers between any of the levels in the six months ended 31 March 2023 (year ended 30 September 2022: nil; six months ended 31 March 2022: nil).

Financial instruments at fair value

	Banking Group			
	Unaudited (31/3/23)			
Dollars in Millions	Fair Value Total	Fair Value Level 1	Fair Value Level 2	Fair Value Level 3
Financial assets				
Trading securities	7,960	2,609	5,351	-
Derivative financial instruments	4,400	-	4,400	-
Loans and advances to customers	465	-	465	-
Financial liabilities				
Trading liabilities	231	226	5	-
Derivative financial instruments	4,004	-	4,004	-
Deposits and other borrowings	4,287	-	4,287	-
Bonds and notes	10,274	-	10,274	-
	Audited (30/9/22)			
Financial assets				
Trading securities	7,414	2,914	4,500	-
Derivative financial instruments	9,540	-	9,540	-
Loans and advances to customers	648	-	648	-
Financial liabilities				
Trading liabilities	302	277	25	-
Derivative financial instruments	8,228	-	8,228	-
Deposits and other borrowings	3,949	-	3,949	-
Bonds and notes	12,015	-	12,015	-
	Unaudited (31/3/22)			
Financial assets				
Trading securities	7,103	3,255	3,848	-
Derivative financial instruments	3,823	-	3,823	-
Loans and advances to customers	603	-	603	-
Financial liabilities				
Trading liabilities	591	503	88	-
Derivative financial instruments	3,926	-	3,926	-
Deposits and other borrowings	6,375	-	6,375	-
Bonds and notes	12,632	-	12,632	-

Note 14 Fair Value of Financial Instruments *continued*

Financial instruments at amortised cost[1]

	Banking Group				
	Unaudited (31/3/23)				
Dollars in Millions	Carrying Amount	Fair Value Total	Fair Value Level 1	Fair Value Level 2	Fair Value Level 3
Financial assets					
Loans and advances to customers	100,498	99,292	-	2,261	97,031
Financial liabilities					
Deposits and other borrowings	74,571	74,504	-	74,504	-
Bonds and notes	9,177	9,086	-	9,086	-
Subordinated debt	1,950	1,955	-	1,955	-
	Audited (30/9/22)				
Financial assets					
Loans and advances to customers	98,698	97,315	-	2,195	95,120
Financial liabilities					
Deposits and other borrowings	74,205	74,082	-	74,082	-
Bonds and notes	8,166	8,103	-	8,103	-
Subordinated debt	1,950	1,974	-	1,974	-
	Unaudited (31/3/22)				
Financial assets					
Loans and advances to customers[2]	97,161	96,220	-	2,025	94,195
Financial liabilities					
Deposits and other borrowings[2]	73,525	73,444	-	73,444	-
Bonds and notes	6,232	6,206	-	6,206	-
Subordinated debt	1,950	1,989	-	1,989	-

[1] Fair values for financial assets and liabilities at amortised cost, where the carrying amount is not considered a close approximation of fair value.
[2] Comparative balances as at 31 March 2022 have been restated to align with the presentation used in the current period. Refer to Note 1 *Principal accounting policies* for further information.

The fair value estimates are based on the following methodologies and assumptions:

Trading securities and Trading liabilities
Trading securities include treasury bills, bank bills and bonds, promissory notes, and government and other securities. Trading liabilities include short sales of securities. Where quoted market prices are not available, the Banking Group obtains the fair value by means of discounted cash flows and other valuation techniques based on observable market prices. These techniques have accounted for factors such as interest rates, credit risk and liquidity.

Derivative financial instruments
The fair values of trading and hedging derivatives, including foreign exchange contracts, interest rate swaps, interest rate and currency option contracts, and currency swaps, are obtained from observable market prices as at the reporting date, discounted cash flow models or option pricing models as appropriate.

Loans and advances to customers
The carrying amount of loans and advances is net of allowance for expected credit losses, credit risk adjustments, unearned and deferred income. Floating rate loans to customers generally reprice within six months, therefore, their fair value is assumed to equate to their carrying amount. For fixed rate loans, the fair value is estimated by discounting the expected future cash flows based on the maturity of the loans and advances, using current market interest rates. The fair value of loans and advances reflects the movement in observable market interest rates since origination but does not include any adjustments for deferred income.

Deposits and other borrowings
With respect to customer deposits, the carrying amounts of non-interest-bearing, call and variable rate deposits and fixed rate deposits maturing within six months approximate their fair value. For other fixed rate term deposits, the fair value is estimated by discounting the cash flows based on the maturity of the deposit, using current market interest rates.

With respect to certificates of deposit and commercial paper, these liabilities are primarily short term in nature. The carrying amounts have been determined using discounted cash flow models based on observable market prices.

Bonds and notes
The fair value of bonds and notes is calculated based on a discounted cash flow model using a yield curve appropriate to the remaining maturity of the instruments. This is based on observable market prices as at the reporting date where available, otherwise alternative observable market source data is used. The fair value includes a calculation of the Banking Group's own credit risk based on observable market data.

Subordinated debt
For Subordinated Notes and Perpetual Notes, the fair value is estimated by discounting the expected future cash flows based on the maturity of the notes, using current market interest rates of similar types of notes.

Note 15 Segment Analysis

Operating segments

An operating segment is a component of an entity engaging in business activities and whose operating results are regularly reviewed by the entity's chief operating decision maker. For each operating segment identified by the Banking Group, financial information is regularly reported to the Bank's Executive Team for the purposes of performance assessment and resource allocation.

The Banking Group's business is organised into two major reportable and operating segments: Partnership Banking; and Corporate and Institutional Banking. Partnership Banking provides financial products and services to retail, business, and private customers. Corporate and Institutional Banking provides financial products and services to corporate and institutional customers.

Revenues and expenses directly associated with each operating segment are included in determining their result. Transactions between operating segments are based on agreed recharges between segments. Segment revenue represents revenue directly attributable to a segment and a portion of the Banking Group's revenue that can be allocated to a segment on a reasonable basis. Segment revenue includes Net interest income and Other income, and includes transfer pricing adjustments to reflect inter-segment funding arrangements.

Included within the 'Other' category in the following table are business activities that are not separately reportable segments; other balances excluded for management reporting purposes, but included in the consolidated financial statements of the Banking Group for statutory financial reporting purposes; accounting differences between management and statutory financial reporting; elimination entries on consolidation of the results of the Banking Group's controlled entities in the preparation of the consolidated financial statements of the Banking Group; and, with respect to prior periods, results of an entity included for management reporting purposes, but excluded from the consolidated financial statements of the Banking Group for statutory financial reporting purposes.

	Banking Group				
	Unaudited 6 Months (31/3/23)				
Dollars in Millions	Partnership Banking	Corporate and Institutional Banking	Total Reportable Segments	Other	Total Banking Group
Net interest income	**1,082**	**338**	**1,420**	**44**	**1,464**
Other income[1]	**120**	**132**	**252**	**59**	**311**
Total operating income	**1,202**	**470**	**1,672**	**103**	**1,775**
Total operating profit before income tax expense	**705**	**401**	**1,106**	**13**	**1,119**
Income tax expense	**198**	**112**	**310**	**4**	**314**
Net profit attributable to the shareholder of the Bank	**507**	**289**	**796**	**9**	**805**
	Audited 12 Months (30/9/22)				
Net interest income	1,915	543	2,458	46	2,504
Other income[1]	234	272	506	121	627
Total operating income	2,149	815	2,964	167	3,131
Total operating profit before income tax expense	1,237	647	1,884	82	1,966
Income tax expense	346	181	527	25	552
Net profit attributable to the shareholder of the Bank	891	466	1,357	57	1,414
	Unaudited 6 Months (31/3/22)				
Net interest income	894	250	1,144	20	1,164
Other income[1]	119	130	249	85	334
Total operating income	1,013	380	1,393	105	1,498
Total operating profit before income tax expense	585	284	869	119	988
Income tax expense	161	80	241	38	279
Net profit attributable to the shareholder of the Bank	424	204	628	81	709

[1] Other income includes Gains less losses on financial instruments and Other operating income.

Note 16 Contingent Liabilities and Other Commitments

Contingent liabilities are possible obligations whose existence will be confirmed only by uncertain future events or present obligations where the transfer of economic benefits is not probable or cannot be reliably measured. Where loss is probable and can be reliably measured, provisions have been made. Contingent liabilities are not recognised on the balance sheet, but are disclosed unless the likelihood of payment is remote.

From time to time, the Banking Group is exposed to contingent risks and liabilities arising from conduct of its business, including:

- actual and potential disputes, claims and legal proceedings;
- investigations into past conduct, including actual and potential regulatory breaches, carried out by regulatory authorities;
- internal investigations and reviews into past conduct, including actual and potential regulatory breaches, carried out by or on behalf of the Banking Group; and
- contracts that involve giving contingent commitments such as warranties, indemnities or guarantees.

The Banking Group has received information requests from its regulators as part of both industry and bank-specific reviews being undertaken, and the Banking Group has also initiated contact with its regulators on compliance-related matters. The scope of reviews, inquiries and investigations can be wide-ranging and can result in enforcement proceedings, fines and other financial penalties, as well as customer remediation programmes.

There are contingent liabilities in respect of all such matters. Such matters are often highly complex and uncertain. Where appropriate, provisions have been made. The aggregate potential liability of the Banking Group in relation to these matters cannot be accurately assessed.

The Banking Group has been progressing a programme of work to strengthen its Anti-Money Laundering (“AML”) and Countering Financing of Terrorism (“CFT”) programme. The work involves significant investment in systems and personnel to ensure an effective control environment and an uplift in compliance capability. In addition to an ongoing general uplift in capability, the programme of work aims to remediate specific compliance issues and weaknesses. The Banking Group continues to keep the RBNZ informed of significant AML or CFT compliance issues and its progress in resolving these issues, and will continue to cooperate with, and respond to queries from, the RBNZ. As this work progresses, further compliance issues may be identified and reported to the RBNZ or equivalent foreign regulators, and additional strengthening may be required. The potential outcome (including enforcement proceedings) and total costs associated with specific issues identified to date, and for any issues that may be identified in the future, remain uncertain.

Contingent liabilities and credit related commitments at face value arising in respect of the Banking Group's operations were:

	Banking Group		
Dollars in Millions	Unaudited 31/3/23	Audited 30/9/22	Unaudited 31/3/22
Contingent liabilities			
Bank guarantees[1]	**430**	473	499
Standby letters of credit	**330**	356	320
Documentary letters of credit	**113**	254	181
Performance related contingencies[1]	**1,294**	1,167	872
Total contingent liabilities	**2,167**	2,250	1,872
Credit related commitments			
Revocable commitments to extend credit[2]	**6,198**	5,904	8,744
Irrevocable commitments to extend credit[2]	**14,606**	14,433	12,818
Total credit related commitments	**20,804**	20,337	21,562
Total contingent liabilities and credit related commitments	**22,971**	22,587	23,434

[1] Comparative balances as at 31 March 2022 have been restated due to a change in product classification and a system optimisation project.

[2] Following a review of the contractual terms of the Banking Group’s credit facilities during the 2022 financial year, the Banking Group reclassified a portion of the facilities from revocable to irrevocable as at 30 September 2022.

Note 17 Concentrations of Credit Exposures to Individual Counterparties and Groups of Closely Related Counterparties

The Banking Group’s disclosure of concentrations of credit exposures to individual counterparties and groups of closely related counterparties is based on actual credit exposures and excludes credit exposures to connected persons, the central government or central bank of any country with a long term credit rating of A- or A3 or above, or its equivalent, and excludes supranationals or quasi-sovereign agencies with a long term credit rating of A- or A3 or above, or its equivalent. Peak credit exposures to individual counterparties are calculated using the Banking Group’s end of period Common Equity Tier 1 capital.

Credit exposures to individual counterparties and groups of closely related counterparties were:

	Banking Group Unaudited (31/3/23)	
Number of bank counterparties	Peak End-of-Day A- or A3 or above or its equivalent	Balance Sheet Date A- or A3 or above or its equivalent
Percentage of Common Equity Tier 1 capital		
10-14%	1	-
15-19%	1	-
20-24%	-	-
Number of non-bank counterparties		
Percentage of Common Equity Tier 1 capital		
10-14%	1	1
15-19%	-	-
20-24%	-	-

The above table has been compiled using gross exposures. No account is taken of collateral, security and/or netting agreements that do not qualify for offset in accordance with NZ IAS 32 *Financial Instruments: Presentation* which the Banking Group may hold in respect of the various counterparty exposures.

The Banking Group had no bank counterparties, supranationals or quasi-sovereign agencies with a long term credit rating below A- or A3, to whom their aggregate credit exposure, as at 31 March 2023, or peak end-of-day aggregate credit exposure, for the six months ended 31 March 2023, equalled or exceeded 10% of the Banking Group’s Common Equity Tier 1 capital.

The Banking Group had no non-bank counterparties with a long term credit rating below A- or A3, to whom their aggregate credit exposure, as at 31 March 2023, or peak end-of-day aggregate credit exposure, for the six months ended 31 March 2023, equalled or exceeded 10% of the Banking Group’s Common Equity Tier 1 Capital.

Note 18 Insurance Business

The Banking Group does not conduct any Insurance Business, as defined in the Bank's Conditions of Registration. The Bank's Conditions of Registration can be obtained by referring to the Bank's Disclosure Statement for the year ended 30 September 2022.

Note 19 Capital Adequacy

The RBNZ minimum regulatory capital requirements for banks have been established under the RBNZ Capital Adequacy Framework, outlined in the "Banking Prudential Requirements" ("BPR") documents based on the international framework developed by the Bank for International Settlements, Committee on Banking Supervision, commonly known as Basel III. These requirements outline how minimum regulatory capital is to be calculated and provide methods for measuring risks incurred by the banks in New Zealand.

Basel III consists of three pillars – Pillar One covers the capital requirements for banks for credit, operational, and market risks. Pillar Two covers all other material risks that are not already included in Pillar One. Pillar Three relates to market disclosure.

RBNZ Capital Adequacy Framework

The Banking Group has calculated its Risk Weighted Assets ("RWA") and minimum regulatory capital requirements based on the BPR documents.

The RBNZ Capital Adequacy Framework allows accredited banks to use their own models for calculating RWA for credit risk; this is the Internal Ratings Based ("IRB") approach. Subject to a condition of registration requiring the Banking Group to meet minimum systems and governance requirements on a continuing basis, the Bank has been accredited to use the IRB approach for certain credit risk exposures. Under the IRB approach for credit risk, the level of risk associated with customers' exposures is determined by way of the primary components of Probability of Default, Loss Given Default and Exposure at Default. For exposures in the Specialised Lending asset category (including Project Finance, Object Finance, Commodity Finance and Income Producing Real Estate) the Banking Group uses supervisory slotting estimates provided by the RBNZ. From 1 January 2022 the Banking Group has complied with the RBNZ requirement that IRB banks calculate exposures to Bank and Sovereign asset classes using the prescribed standardised methodology in BPR131 *Standardised Credit Risk RWAs* ("BPR131").

Credit risk for portfolios of relatively low materiality, for which the Bank has not sought model approval, are also subject to the standardised treatment.

In calculating the total capital requirement, a scalar has been applied to the RWA, as required by the RBNZ in accordance with the Bank's Conditions of Registration. Effective from 1 October 2022, the scalar increased from 1.06 to 1.2 for exposures subject to the IRB approach and reduced from 1.06 to 1 for exposures subject to the standardised approach.

From 1 January 2022 IRB banks have also been required to use the standardised calculation methodology set out in BPR131 to calculate the standardised equivalent RWA for each credit exposure subject to the IRB calculation methodology and, after multiplying by the scalar, apply a floor on the IRB exposures equal to 85% of the value of those RWA recalculated using the standardised methodology. Effective from 1 October 2022 the applicable scalar increased from 1.06 to 1.2.

Capital requirement for market risk has been calculated in accordance with the approach specified in BPR140 *Market Risk*.

Capital requirement for operational risk has been calculated in accordance with the approach specified in BPR150 *Standardised Operational Risk* ("BPR150"), subject to a minimum value of $600 million.

Capital management policies

The Banking Group's primary objectives in relation to the management of capital adequacy are to comply with the requirements set out by the RBNZ, the Banking Group's primary prudential supervisor, to provide a sufficient capital base to cover risks faced by the Bank and to maintain a credit rating to support future business development.

The Banking Group is required under its Conditions of Registration to maintain a minimum ratio of total eligible or qualifying capital to total RWA of 8%, of which a minimum of 4.5% must be held in Common Equity Tier 1 capital and a minimum of 6% must be held in Tier 1 capital. The Banking Group must maintain a minimum prudential capital buffer ratio of 3.5% above these minimum ratios or it will face restrictions on the distribution of earnings, be required to prepare a capital plan that restores the Banking Group's buffer ratio and have that capital plan approved by the RBNZ.

As required by the RBNZ's BPR on regulatory capital, since 1 July 2022 the Banking Group has been in a six year transition period to increase Tier 1 capital to 16% of RWA (including a prudential capital buffer of 9% of RWA), of which up to 2.5% can be in the form of Additional Tier 1 ("AT1") capital, and increase total capital to 18% of RWA, of which up to 2% can be in the form of Tier 2 capital.

The Banking Group has an Internal Capital Adequacy Assessment Process ("ICAAP") in place which complies with the requirements set out in BPR100 *Capital Adequacy* as specified under the Bank's Conditions of Registration. The Banking Group's ICAAP outlines the approach to maintaining capital adequacy, risk appetite and stress testing. The ICAAP considers all material risks consistent with the Banking Group's risk appetite and outlines the capital requirements.

Capital requirements, as detailed in the Banking Group's ICAAP document, are managed by the Bank's Executive Risk and Compliance Committee ("ERCC") and Asset, Liability and Capital Committee under delegated authority from the Board of Directors.

For more information on the capital structure of the Banking Group, refer to page 33.

The tables on the following pages detail the capital calculation, capital ratios and capital requirements as at 31 March 2023. During the reporting period the Banking Group complied with all of the RBNZ's capital requirements as set out in the Bank's Conditions of Registration.

Note 19 Capital Adequacy *continued*

Regulatory capital

The following table shows the qualifying capital for the Banking Group.

Dollars in Millions	Banking Group Unaudited 31/3/23
Qualifying capital	
Common Equity Tier 1 capital	
Contributed equity - ordinary shares	9,056
Retained profits	2,063
Accumulated other comprehensive income and other disclosed reserves	218
Deductions from Common Equity Tier 1 capital:	
Goodwill and other intangible assets	455
Cash flow hedge reserve	214
Credit value adjustment on liabilities designated at fair value through profit or loss	(31)
Prepaid pension assets (net of deferred tax)	6
Deferred tax asset	304
Total expected loss less total eligible allowances for impairment	-
Total Common Equity Tier 1 capital	10,389
Additional Tier 1 capital	
Perpetual Notes[1]	675
Total Additional Tier 1 capital	675
Total Tier 1 capital	11,064
Tier 2 capital	
Revaluation reserves	3
Subordinated Notes[2,3]	925
Total eligible impairment allowance in excess of expected loss	299
Total Tier 2 capital	1,227
Total Tier 1 and Tier 2 qualifying capital	12,291

[1] The Perpetual Notes are subject to phase-out in accordance with BPR110 *Capital Definitions* ("BPR110"). The phase-out, which commenced on 1 January 2022, takes place until 1 July 2028, with the maximum eligible amount of AT1 capital for these instruments declining by 12.5% each year. The base amount for phase-out was fixed at the nominal amount outstanding as at 30 September 2021 and amounted to $900 million.

[2] The 2028-Subordinated Notes are subject to phase-out in accordance with BPR110. The phase-out, which commenced on 1 January 2022, takes place until 1 July 2028, with the maximum eligible amount of Tier 2 capital for these instruments declining by 12.5% each year. The base amount for phase-out was fixed at the nominal amount outstanding as at 30 September 2021 and amounted to $500 million. On 8 May 2023, the Bank exercised its option to fully redeem the 2028-Subordinated Notes prior to the scheduled maturity date of 8 May 2028.

[3] The 2031-Subordinated Notes of $550 million are not subject to phase-out in accordance with BPR110.

Banking Group Basel III regulatory capital ratios

The table below shows the capital adequacy ratios for the Banking Group based on BPR, expressed as a percentage of total risk-weighted exposures.

		Banking Group		
	Regulatory Minima	Unaudited 31/3/23	Unaudited 30/9/22	Unaudited 31/3/22
Common Equity Tier 1 capital ratio	4.5%	13.3%	12.8%	12.7%
Tier 1 capital ratio	6.0%	14.1%	13.8%	13.7%
Total qualifying capital ratio	8.0%	15.7%	15.4%	15.3%
Prudential capital buffer ratio	3.5%	7.7%	7.4%	7.3%

Registered Bank Basel III regulatory capital ratios

The table below shows the capital adequacy ratios for the Registered Bank based on BPR, expressed as a percentage of total risk-weighted exposures.

	The Registered Bank		
	Unaudited 31/3/23	Unaudited 30/9/22	Unaudited 31/3/22
Common Equity Tier 1 capital ratio	13.2%	12.8%	12.7%
Tier 1 capital ratio	14.1%	13.8%	13.7%
Total qualifying capital ratio	15.7%	15.4%	15.2%

For the purpose of calculating capital adequacy ratios for the Registered Bank under BPR, subsidiaries are consolidated within the Registered Bank if they are either funded exclusively and wholly owned by the Registered Bank, or there is a full, unconditional and irrevocable cross guarantee between the subsidiaries and the Registered Bank.

Note 19 Capital Adequacy *continued*

Total regulatory capital requirements

	Banking Group		
	Unaudited (31/3/23)		
Dollars in Millions	Total Exposure at Default after Credit Risk Mitigation	Risk-Weighted Exposure or Implied Risk-Weighted Exposure	Total Capital Requirement[1]
Credit risk			
Exposures subject to the internal ratings based approach[1]	112,720	49,384	3,951
Specialised lending subject to the slotting approach[1]	7,423	8,042	643
Exposures subject to the standardised approach[1]	24,421	3,040	243
Equity exposures[1]	1	4	-
Credit Value Adjustment subject to BPR ("CVA")	N/A	436	35
Adjustment for standardised RWA floor[2]	N/A	3,643	291
Total credit risk	144,565	64,549	5,163
Operational risk	N/A	9,625	770
Market risk	N/A	4,172	334
Total	144,565	78,346	6,267

[1] In calculating the total capital requirement, a scalar has been applied to the RWA, as required by the RBNZ in accordance with the Bank's Conditions of Registration. Effective from 1 October 2022, the scalar increased from 1.06 to 1.2 for exposures subject to the IRB approach, and reduced from 1.06 to 1 for exposures subject to the standardised approach.

[2] From 1 January 2022, the Banking Group's IRB RWA (after multiplying by the scalar) are subject to a floor equal to 85% of the value of those RWA recalculated using the standardised methodology. Effective from 1 October 2022 the scalar increased from 1.06 to 1.2.

Advanced Internal Ratings Based approach to credit risk management

The Banking Group’s quantitative credit risk measurement is based on the IRB approach (IRB for Retail Credit portfolios and Advanced IRB for Non-retail Credit portfolios) and uses a series of models to calculate loss estimates for the credit portfolio. This includes consideration of:

- probability of default (“PD”) which estimates the probability that a customer will default over the next 12 months;
- exposure at time of default (“EAD”) which estimates the amount of outstanding principal, fees and interest owed at the time of default; and
- loss given default (“LGD”) which estimates the expected loss in the event of default. It is the percentage of exposure which will be lost after all recovery efforts, including legal expenses, time value of money and recovery expenses.

The above three elements (PD, EAD, and LGD) are important inputs in determining the risk-weighted exposure calculations for both on and off-balance sheet exposures, including undrawn portions of credit facilities, committed and contingent exposures. These ratings are also an important input into the credit approval, risk management, internal capital allocation and corporate governance functions of the Banking Group.

Methodologies used to calculate credit risk estimates (PD, EAD and LGD) are in accordance with the BPR and the Bank’s Conditions of Registration. For credit risk estimates on some portfolios, the RBNZ has set prescribed risk estimates required to be used when calculating risk-weighted assets and capital under the BPR.

Controls surrounding credit risk rating systems

The credit risk rating systems cover all methods, processes, controls, data collection and technology that support the assessment of credit risk, the assignment of internal credit risk ratings and the quantification of associated default and loss estimates.

The credit risk rating systems and risk estimate processes are governed by the Banking Group’s ERCC and are an integral part of reporting to senior management. Management and staff of the credit risk function regularly assess the performance of the rating systems, monitor progress on changes being made to systems and identify any areas for improvement. These systems are subject to rigorous internal review and approval and regular independent review. The annual validation of models is undertaken by specialists who are responsible for overseeing the design, implementation and performance of all rating models across the Banking Group.

The risk-weighted asset amounts calculated using the IRB approach, presented in the following tables, include a scalar of 1.2 as required by the RBNZ in accordance with the Bank’s Conditions of Registration, which is not in the risk weight percentages shown.

Note 19 Capital Adequacy *continued*

Credit risk subject to the Internal Ratings Based ("IRB") approach

The following tables analyse credit risk exposures by asset class split into PD bandings. The lower the PD banding the less the probability of default over the next 12 months.

Dollars in Millions	Banking Group Unaudited (31/3/23) Weighted Average PD (%)	Exposure at Default[2]	Exposure-Weighted LGD used for the Capital Calculation (%)	Exposure-Weighted Risk Weight (%)	Risk-Weighted Assets	Minimum Capital Requirement
Corporate						
Exposure-weighted PD grade >0 ≤ 0.1%	0.05	5,403	44	16	1,035	83
Exposure-weighted PD grade >0.1 ≤ 0.5%	0.32	21,184	34	36	9,059	724
Exposure-weighted PD grade >0.5 ≤ 1.5%	0.91	16,861	31	54	10,996	880
Exposure-weighted PD grade >1.5 ≤ 5.0%	2.38	5,764	32	74	5,087	407
Exposure-weighted PD grade >5.0 ≤ 99.99%	12.07	682	42	154	1,261	101
Default PD grade = 100%	100.00	659	36	256	2,024	162
Total corporate exposures	2.18	50,553	34	49	29,462	2,357
Residential mortgage						
Exposure-weighted PD grade >0 ≤ 0.1%	-	-	-	-	-	-
Exposure-weighted PD grade >0.1 ≤ 0.5%	0.40	1,437	17	13	217	17
Exposure-weighted PD grade >0.5 ≤ 1.5%	0.95	55,911	18	24	16,140	1,291
Exposure-weighted PD grade >1.5 ≤ 5.0%	4.92	1,924	18	63	1,454	116
Exposure-weighted PD grade >5.0 ≤ 99.99%	-	-	-	-	-	-
Default PD grade = 100%	100.00	298	19	216	772	62
Total residential mortgage exposures	1.56	59,570	18	26	18,583	1,486
Other retail[1]						
Exposure-weighted PD grade >0 ≤ 0.1%	0.05	742	87	12	109	9
Exposure-weighted PD grade >0.1 ≤ 0.5%	0.24	462	86	38	210	17
Exposure-weighted PD grade >0.5 ≤ 1.5%	0.90	210	86	81	205	17
Exposure-weighted PD grade >1.5 ≤ 5.0%	2.70	113	83	112	152	12
Exposure-weighted PD grade >5.0 ≤ 99.99%	12.82	47	78	140	79	6
Default PD grade = 100%	100.00	7	73	430	39	3
Total other retail exposures	1.27	1,581	86	42	794	64
Retail small to medium enterprises						
Exposure-weighted PD grade >0 ≤ 0.1%	0.07	167	38	7	15	1
Exposure-weighted PD grade >0.1 ≤ 0.5%	0.30	764	30	15	140	12
Exposure-weighted PD grade >0.5 ≤ 1.5%	0.92	443	32	31	165	13
Exposure-weighted PD grade >1.5 ≤ 5.0%	2.62	268	34	46	148	12
Exposure-weighted PD grade >5.0 ≤ 99.99%	10.86	36	37	63	27	2
Default PD grade = 100%	100.00	22	38	193	50	4
Total retail SME exposures	2.30	1,700	32	27	545	44
Total[3]						
Exposure-weighted PD grade >0 ≤ 0.1%	0.05	6,312	49	15	1,159	93
Exposure-weighted PD grade >0.1 ≤ 0.5%	0.32	23,847	34	34	9,626	770
Exposure-weighted PD grade >0.5 ≤ 1.5%	0.94	73,425	22	31	27,506	2,201
Exposure-weighted PD grade >1.5 ≤ 5.0%	3.00	8,069	30	71	6,841	547
Exposure-weighted PD grade >5.0 ≤ 99.99%	12.06	765	44	149	1,367	109
Default PD grade = 100%	100.00	986	31	244	2,885	231
Total exposures	1.84	113,404	26	36	49,384	3,951

[1] Other retail includes credit cards, current accounts and personal overdrafts.
[2] Exposure at default is pre-credit risk mitigation.
[3] The CVA and adjustment for RWA floor have not been included in the above exposures.

Note 19 Capital Adequacy *continued*

The following table analyses the value and exposure at default of on-balance sheet exposures, off-balance sheet exposures and market related contracts under the IRB approach by asset class.

	Banking Group			
	Unaudited (31/3/23)			
Dollars in Millions	Total Exposure	Exposure at Default[2]	Risk-Weighted Assets	Minimum Capital Requirement
On-balance sheet exposures				
Corporate	37,430	37,430	22,441	1,795
Residential mortgage	56,413	56,413	17,731	1,418
Other retail	830	830	540	43
Retail small to medium enterprises	1,275	1,275	434	35
Total on-balance sheet exposures	95,948	95,948	41,146	3,291
Off-balance sheet exposures				
Corporate	13,547	12,040	6,467	518
Residential mortgage	3,620	3,157	852	68
Other retail	2,336	751	254	21
Retail small to medium enterprises	479	425	111	9
Total off-balance sheet exposures	19,982	16,373	7,684	616
Derivatives and securities financing transactions[1]				
Corporate	1,083	1,083	554	44
Total derivatives and securities financing transactions	1,083	1,083	554	44
Summary[3]				
Corporate		50,553	29,462	2,357
Residential mortgage		59,570	18,583	1,486
Other retail		1,581	794	64
Retail small to medium enterprises		1,700	545	44
Total credit risk exposures subject to the IRB approach		113,404	49,384	3,951

[1] Total exposure for derivatives and securities financing transactions represents exposure at default pre-credit risk mitigation.
[2] Exposure at default is pre-credit risk mitigation.
[3] The CVA and adjustment for RWA floor have not been included in the above exposures.

Note 19 Capital Adequacy *continued*

Specialised lending subject to the slotting approach

The tables below show specialised lending exposures for which the supervisory slotting approach has been used and includes Project Finance, Object Finance, Commodity Finance and Income Producing Real Estate exposures.

	Banking Group			
	Unaudited (31/3/23)			
Dollars in Millions	Total Exposure at Default after Credit Risk Mitigation	Risk Weight (%)	Risk-Weighted Assets	Minimum Pillar One Capital Requirement
On-balance sheet exposures subject to the slotting approach				
Strong	1,250	70	1,050	84
Good	4,732	90	5,097	408
Satisfactory	643	115	887	71
Weak	111	250	334	27
Default	40	-	-	-
Total on-balance sheet exposures subject to the slotting approach	6,776	91	7,368	590

The categories of specialised lending above are associated with the risk weight shown. These categories broadly correspond to external credit assessments from S&P Global Ratings Australia Pty Limited rating scale: BBB- or better (Strong); BB+ or BB (Good); BB- or B+ (Satisfactory); B to C- (Weak).

	Banking Group				
	Unaudited (31/3/23)				
Dollars in Millions	Total Exposure	Exposure at Default	Average Risk Weight (%)	Risk-Weighted Assets	Minimum Pillar One Capital Requirement
Off-balance sheet exposures subject to the slotting approach					
Off-balance sheet exposures	8	4	74	3	-
Undrawn commitments	1,238	632	87	660	52
Market related contracts	1,041	11	85	11	1
Total off-balance sheet exposures subject to the slotting approach	2,287	647	87	674	53
Total exposures subject to the slotting approach		7,423	90	8,042	643

Note 19 Capital Adequacy *continued*

Credit risk exposures subject to the standardised approach

The tables below show credit risk exposures in respect of the Banking Group, for which the standardised approach has been used.

	Banking Group Unaudited (31/3/23)			
Dollars in Millions	Total Exposure at Default after Credit Risk Mitigation	Average Risk Weight (%)	Risk-Weighted Exposure	Minimum Pillar One Capital Requirement
On-balance sheet exposures subject to the standardised approach				
Sovereigns and central banks	15,116	-	-	-
Multilateral development banks and other international organisations	683	-	-	-
Public sector entities	1,308	20	262	21
Bank	2,256	42	949	76
Corporate	50	100	50	4
Residential mortgage	16	74	12	1
Past due assets	2	150	3	-
Other assets[1]	1,834	49	904	73
Total on-balance sheet exposures subject to the standardised approach	21,265	10	2,180	175

[1] Other assets relate to all other assets (including interest receivables, account receivables, intangibles and cash accounts) that are not included in the other categories in the table.

	Banking Group Unaudited (31/3/23)					
Dollars in Millions	Total Exposure or Principal Amount	Average Credit Conversion Factor (%)	Credit Equivalent Amount	Average Risk Weight (%)	Risk-Weighted Exposure	Minimum Pillar One Capital Requirement
Off-balance sheet exposures subject to the standardised approach						
Total off-balance sheet exposures subject to the standardised approach	723	92	668	31	209	17

	Banking Group Unaudited (31/3/23)				
Dollars in Millions	Total Exposure	Credit Equivalent Amount	Average Risk Weight (%)	Risk-Weighted Exposure	Minimum Pillar One Capital Requirement
Counterparty credit risk for counterparties subject to the standardised approach					
Foreign exchange contracts[2]	1,415	1,246	34	426	34
Interest rate contracts[2]	2,276	1,235	18	223	17
Other	7	7	38	2	-
Total counterparty credit risk for counterparties subject to the standardised approach	3,698	2,488	26	651	51
Total exposures subject to the standardised approach		24,421	12	3,040	243

[2] The total exposure reflects the exposure at default pre-credit risk mitigation. The credit equivalent amount reflects the exposure at default after credit risk mitigation.

Equity exposures

The table below shows the capital required to be held as a result of equities held.

	Banking Group Unaudited (31/3/23)			
Dollars in Millions	Exposure at Default	Risk Weight (%)	Risk-Weighted Exposure	Minimum Pillar One Capital Requirement
Equity holdings (not deducted from capital) included in the NZX 50 or overseas equivalent index	-	300	-	-
All other equity holdings (not deducted from capital)	1	400	4	-
Total equity exposures	1	377	4	-

Note 19 Capital Adequacy *continued*

Credit risk mitigation

The Banking Group assesses the integrity and ability of counterparties to meet their contractual financial obligations for repayment. Collateral security in the form of property or a security interest in personal property is generally taken for business credit except for major government, bank and corporate counterparties of strong financial standing. Longer term consumer finance (e.g. housing loans) is generally secured against real estate while short term revolving consumer credit is generally unsecured.

The table below shows the total value of exposures covered by eligible financial collateral for portfolios subject to the standardised approach and total value of exposures covered by credit derivatives and guarantees for all portfolios.

	Banking Group				
	Unaudited (31/03/23)				
Dollars in Millions	Bank	Sovereign	Corporate (Including Specialised Lending)	Residential Mortgage	Other
For portfolios subject to the standardised approach:					
Total value of exposures covered by eligible financial collateral	579	7,002	1	-	-
For all portfolios:					
Total value of exposures covered by credit derivatives or guarantees	-	-	-	-	-

Residential mortgages by loan-to-valuation ("LVR") ratio

The table below sets out residential mortgages (including loans to businesses) wholly or partly secured by mortgages over residential properties as used to calculate the Banking Group's Pillar One capital requirement.

The LVRs are calculated as the greater of the customer's current loan limit or balance, divided by the Banking Group's valuation of the security at the last credit event for the customer. Where no LVR is available, the exposure is included in the over 90% category.

	Banking Group		
	Unaudited (31/3/23)		
Dollars in Millions	On-balance Sheet Exposures at Default	Off-balance Sheet Exposures at Default[1]	Total Exposures at Default
LVR Range			
0-59%	28,617	1,534	30,151
60-69%	12,796	594	13,390
70-79%	12,515	699	13,214
80-89%	1,782	24	1,806
Over 90%	703	306	1,009
Total exposures at default secured by residential mortgages	56,413	3,157	59,570

[1] Off-balance sheet items include unutilised limits and loans approved, but not yet drawn.

Reconciliation of exposures secured by residential mortgages to housing loans in Note 6 *Loans and advances to customers*

	Banking Group
Dollars in Millions	On-balance Sheet Exposures at Default Unaudited 31/3/23
Loans and advances to customers - housing loans	56,412
Add: Partial write offs excluded under the IRB approach	1
Total housing loan exposures secured by residential mortgages	56,413

Operational risk

	Banking Group	
	Unaudited (31/3/23)	
Dollars in Millions	Implied Risk-Weighted Exposure	Total Operational Risk Capital Requirement
Operational risk	9,625	770

The Banking Group calculated operational risk capital using the standardised approach set out in BPR150, subject to a minimum value of $600 million.

Note 19 Capital Adequacy *continued*

Market risk

The table below shows market risk end of period and peak end-of-day capital charges.

	Banking Group			
	Unaudited (31/3/23)			
	Implied Risk-Weighted Exposure		Aggregate Capital Charge	
Dollars in Millions	End of Period	Peak End-of-Day	End of Period	Peak End-of-Day
Interest rate risk	**4,113**	**4,818**	**329**	**385**
Foreign exchange risk	**58**	**174**	**5**	**14**
Equity risk	**1**	**1**	**-**	**-**
Total market risk	**4,172**	**4,993**	**334**	**399**

The aggregate market risk exposure above is derived in accordance with BPR and the Bank's Conditions of Registration.

For each category of market risk, the Banking Group's end of period aggregate capital charge is the charge as at the end of period reported. The peak end-of-day aggregate capital charge is the maximum over the half year accounting period at the close of each business day.

Equity risk subject to a market risk capital charge as shown above relates to equities owned by the Bank.

Capital for other material risks

The Banking Group actively manages and measures all material risks affecting its operations. These risks go beyond the traditional banking risks of credit, operational and market risk. The measurement and management of all material risks is determined under the Banking Group's ICAAP and includes consideration of all other material risks, additional to those included in determining the minimum regulatory capital requirements under BPR. Other material risks assessed by the Banking Group include strategic risk, balance sheet and liquidity risk, conduct risk, compliance risk and sustainability risk.

As at 31 March 2023, the Banking Group had an internal capital allocation for strategic risk of nil (30 September 2022: $0 million; 31 March 2022: $105 million).

Capital structure

Contributed equity – Ordinary shares

These shares do not have a par value; each share entitles the shareholder to one vote at any meeting of shareholders. All shares rank equally in dividends and proceeds available to ordinary shareholders in a winding up.

Subordinated debt

Refer to Note 11 *Subordinated debt* for further information on Perpetual Notes, Subordinated Notes and Listed Subordinated Notes.

Reserves

Accumulated other comprehensive income and other disclosed reserves in Tier 1 capital includes the cost of hedging reserve of $3 million which captures changes in the fair value of hedging instruments due to currency basis and the FVOCI reserve of $1 million which captures changes in the fair value of investments in equity instruments that are measured at fair value through other comprehensive income.

The asset revaluation reserve of $3 million included in Tier 2 capital relates to increments and any subsequent decrements arising from the revaluation of property, plant and equipment.

National Australia Bank Limited capital adequacy

The table below shows the capital adequacy ratios based on APRA capital adequacy standards, expressed as a percentage of total risk-weighted assets.

	Ultimate Parent Banking Group			Ultimate Parent Bank		
	Unaudited 31/3/23	Unaudited 30/9/22	Unaudited 31/3/22	**Unaudited 31/3/23**	Unaudited 30/9/22	Unaudited 31/3/22
Common Equity Tier 1 capital ratio	**12.21%**	11.51%	12.48%	**12.03%**	11.24%	12.32%
Tier 1 capital ratio	**13.89%**	13.14%	14.07%	**13.92%**	13.05%	14.09%
Total capital ratio	**19.76%**	18.17%	18.55%	**20.43%**	18.57%	19.03%

The ultimate parent banking group data is the Level 2 capital ratio (as published in the National Australia Bank Limited Pillar 3 report) and represents the consolidation of NAB and its subsidiary entities, other than the non-consolidated subsidiaries as outlined in the Pillar 3 report.

The ultimate parent bank of the Banking Group is National Australia Bank Limited which reports under the Advanced Internal Ratings-Based approach for credit risk (other than for regulatory prescribed portfolios and other portfolios where the standardised approach to credit risk is applied), and the Standardised Measurement Approach to operational risk. The ultimate parent bank capital ratios are effectively represented by the Level 1 capital ratios, which comprises National Australia Bank Limited and its subsidiary entities approved by APRA as part of the Extended Licensed Entity.

Under prudential regulations, NAB is required to hold capital above the prudential capital ratio ("PCR") and capital conservation buffer as determined by APRA for both the Level 1 and Level 2 Groups. The PCR is prescribed on a bilateral basis, and is not publicly disclosed. National Australia Bank Limited met the minimum capital adequacy requirements set by APRA as at 31 March 2023.

National Australia Bank Limited is required to publicly disclose risk management and capital adequacy information specified in APRA's Prudential Standard APS 330: *Public Disclosure* ("APS 330"). Updates are provided on a quarterly basis in accordance with the APS 330 reporting requirements.

National Australia Bank Limited's Annual Report and Pillar 3 report, incorporating the requirements of APS 330, can be accessed at www.nab.com.au.

Note 20 Risk Management

Risk management disclosure

There have been no material changes to the Banking Group's policies for managing risk, or material exposures to new categories of risk, since 30 September 2022.

Concentrations of credit exposure

The table below presents the maximum exposure to credit risk of financial assets before taking into account any collateral held or other credit enhancements.

	Banking Group		
	Unaudited	Audited	Unaudited
Dollars in Millions	31/3/23	30/9/22	31/3/22
Maximum exposure to credit risk			
Cash and liquid assets	9,297	9,438	11,978
Due from central banks and other institutions[1]	213	372	284
Collateral paid[1]	1,014	2,814	683
Trading securities	7,960	7,414	7,103
Derivative financial instruments	4,400	9,540	3,823
Gross loans and advances to customers[1]	101,640	100,092	98,500
Amounts due from related entities	357	210	662
Total on-balance sheet credit exposures	124,881	129,880	123,033
Off-balance sheet credit exposures[2]	16,773	16,683	14,690
Total maximum exposure to credit risk	141,654	146,563	137,723

[1] Comparative balances as at 31 March 2022 have been restated to align with the presentation used in the current period. Refer to Note 1 *Principal accounting policies* for further information.
[2] Off-balance sheet credit exposures include contingent liabilities and irrevocable commitments to extend credit. Comparative balances as at 31 March 2022 have been restated to align with the presentation used in the current period. Refer to Note 16 *Contingent liabilities and other commitments* for further information.

The table below presents the Banking Group's concentrations of credit exposure by industry sector and geographical location. Except for derivative financial instruments, the majority of the overseas credit exposures relate to New Zealand based assets funded in New Zealand dollars for offshore customers. The concentrations of credit exposure by industry sector are based on Australian and New Zealand Standard Industrial Classification ("ANZSIC") codes. The concentrations of credit exposure by geographical location are based on the geographical location of the counterparty's tax residency.

	Banking Group Unaudited (31/3/23)		
Dollars in Millions	On-balance sheet	Off-balance sheet	Total exposure
Concentration by industry			
Agriculture	14,292	1,269	15,561
Forestry and fishing	1,074	345	1,419
Mining	261	213	474
Manufacturing	3,846	1,532	5,378
Electricity, gas and water	698	661	1,359
Construction	1,610	793	2,403
Wholesale and retail trade	4,429	1,329	5,758
Accommodation, restaurants, culture and recreation	1,526	462	1,988
Transport and storage	1,841	1,288	3,129
Communications	330	222	552
Financial, investment and insurance	16,965	1,784	18,749
Property, business and personal services	10,688	2,669	13,357
Government, education, health and community services	8,102	1,347	9,449
Real estate - mortgage	56,412	2,852	59,264
Personal lending	840	7	847
Related entities[3]	1,967	-	1,967
Total credit exposures by industry	124,881	16,773	141,654
Concentration by geography			
New Zealand	119,194	16,526	135,720
Overseas	5,687	247	5,934
Total credit exposures by geography	124,881	16,773	141,654

[3] Related entities include amounts due from related entities and derivative financial assets with related entities.

Note 20 Risk Management *continued*

Interest rate repricing schedule

The following table represents a breakdown of the balance sheet by repricing dates or contractual maturity, whichever is the earlier. As interest rates and yield curves change over time, the Banking Group may be exposed to a loss in earnings due to the characteristics of the assets and their corresponding liability funding. These mismatches are actively managed as part of the overall interest rate risk management process. In managing the structural interest rate risk, the primary objectives are to limit the extent to which net interest income could be impacted from an adverse movement in interest rates and to maximise shareholder's earnings.

	Banking Group Unaudited (31/3/23)						
Dollars in Millions	Total	Up to 3 Months	Over 3 Months and up to 6 Months	Over 6 Months and up to 1 Year	Over 1 Year and up to 2 Years	Over 2 Years	Non-Interest Bearing
Assets							
Cash and liquid assets	9,427	9,260	-	-	-	-	167
Due from central banks and other institutions	213	192	21	-	-	-	-
Collateral paid	1,014	1,014	-	-	-	-	-
Trading securities	7,960	2,237	336	31	429	4,927	-
Derivative financial instruments	4,400	-	-	-	-	-	4,400
Gross loans and advances to customers	101,640	49,269	8,271	14,039	17,387	10,276	2,398
Deductions from loans and advances to customers	(677)	-	-	-	-	-	(677)
Amounts due from related entities	357	316	-	-	-	-	41
All other assets	2,126	-	-	-	-	-	2,126
Total assets	126,460	62,288	8,628	14,070	17,816	15,203	8,455
Liabilities							
Due to central banks and other institutions	6,252	4,885	51	56	11	1,249	-
Collateral received	1,542	1,542	-	-	-	-	-
Trading liabilities	231	-	-	-	31	200	-
Derivative financial instruments	4,004	-	-	-	-	-	4,004
Deposits and other borrowings	78,858	43,689	8,975	8,944	1,418	828	15,004
Bonds and notes	19,451	2,619	-	1,879	4,398	10,555	-
Amounts due to related entities	1,195	1,095	-	-	-	-	100
Subordinated debt	1,950	1,950	-	-	-	-	-
All other liabilities	1,637	-	-	-	-	-	1,637
Total liabilities	115,120	55,780	9,026	10,879	5,858	12,832	20,745
Shareholder's equity							
Total shareholder's equity	11,340	-	-	-	-	-	11,340
Total liabilities and shareholder's equity	126,460	55,780	9,026	10,879	5,858	12,832	32,085
On-balance sheet sensitivity gap	-	6,508	(398)	3,191	11,958	2,371	(23,630)
Derivative financial instruments							
Net hedging derivative notionals	-	(2,323)	2,630	(1,403)	(6,691)	7,787	-
Interest sensitivity gap - net	-	4,185	2,232	1,788	5,267	10,158	(23,630)

Note 20 Risk Management *continued*

Maturity profile

The table below shows cash flows by remaining contractual maturities of the Banking Group's financial liabilities and derivative financial liabilities.

The gross cash flows disclosed hereafter are the contractual undiscounted cash flows and include both principal and associated future interest payments and therefore will not agree to the carrying values on the balance sheet. Actual cash flows can differ significantly from contractual cash flows as a result of future actions of the Banking Group and its counterparties. Other liabilities only include balances which have contractual future cash flows.

	Banking Group Unaudited (31/3/23)					
Dollars in Millions	On Demand	3 Months or less	3 to 12 Months	1 to 5 Years	Over 5 Years	Total (Inflow)/ Outflow
Liabilities						
Due to central banks and other institutions	928	951	1,940	2,747	-	6,566
Collateral received	-	1,542	-	-	-	1,542
Trading liabilities	-	2	5	76	242	325
Deposits and other borrowings	43,867	14,562	18,914	2,400	14	79,757
Bonds and notes	-	1,415	2,812	14,015	3,768	22,010
Amounts due to related entities	881	299	16	-	-	1,196
Other liabilities	-	698	69	129	183	1,079
Subordinated debt[1]	-	12	990	275	1,183	2,460
Total	45,676	19,481	24,746	19,642	5,390	114,935
Derivative financial liabilities[2]						
Derivative financial liabilities (inflow)	-	(55,534)	(15,394)	(28,767)	(6,451)	(106,146)
Derivative financial liabilities outflow	-	58,398	19,995	36,507	8,854	123,754

[1] The maturity classification of the Bank's Perpetual Notes reflects the scheduled mandatory conversion date. Refer to Note 11 *Subordinated debt* for further information.
[2] Derivative financial liabilities include hedging and trading derivative cash flows.

Liquidity portfolio management

The table below shows net financial assets held by the Banking Group for the purpose of managing liquidity risk.

Dollars in Millions	Banking Group Unaudited 31/3/23
Cash and balances immediately convertible to cash[3]	9,353
Securities purchased under agreements to resell	173
Government bonds, notes and securities	3,124
Semi-government bonds, notes and securities	2,849
Corporate and other institutions bonds, notes and securities	1,756
Total liquidity portfolio	17,255

[3] Included within cash and balances immediately convertible to cash is $50 million due from other institutions.

As at 31 March 2023, the Banking Group also held residential mortgage-backed securities ("RMBS") of $15,000 million of which $14,160 million is eligible to be sold to the RBNZ under agreements to repurchase. The amount of $14,160 million is subject to a 19% reduction in value in accordance with RBNZ's Operating Rules and Guidelines. These RMBS are secured by housing loans and other assets.

In accordance with the RBNZ's Liquidity Policy (BS13/BS13A) ("BS13"), there is a limit on the amount of RMBS that can be considered as qualifying liquid assets eligible to be sold to the RBNZ under agreements to repurchase, with a maximum allowance of 5% of the Banking Group's total assets, giving a net balance of $6,355 million.

Additional RBNZ facilities

On 26 May 2020, the RBNZ made available a Term Lending Facility ("TLF") to offer loans for a fixed term of three years at the rate of the Official Cash Rate ("OCR"). On 20 August 2020, the RBNZ announced it would extend the term to five years. The TLF has been closed for drawdowns since 29 July 2021. As at 31 March 2023, the Banking Group had repurchase agreements with the RBNZ with a value of $1,264 million under the TLF.

On 7 December 2020, the RBNZ made available its Funding for Lending Programme ("FLP") aimed at lowering the cost of borrowing for New Zealand businesses and households. The FLP allowed eligible participants to access three-year floating interest rate funding at the prevailing OCR, using qualifying collateral. The FLP has been closed for drawdowns since 7 December 2022. As at 31 March 2023, the Banking Group had repurchase agreements with the RBNZ with a value of $3,449 million under the FLP.

The underlying collateral accepted by the RBNZ in relation to the TLF and FLP facilities as at 31 March 2023 are RMBS to the value of $5,914 million.

Note 20 Risk Management *continued*

Regulatory liquidity ratios

The table below shows the three-month average of the respective daily ratio values in accordance with BS13 and the Bank's Conditions of Registration relating to liquidity-risk management.

The one-week mismatch ratio is a measure of the Bank's one-week mismatch amount over its total funding, where the one-week mismatch amount represents the Bank's portfolio of primary liquid assets plus expected cash inflows minus expected cash outflows during a one-week period of stress. The Bank is required to maintain this ratio above a minimum level of zero percent on a daily basis. The one-week mismatch ratio = 100 x (one-week mismatch dollar amount / total funding).

The one-month mismatch ratio is a measure of the Bank's one-month mismatch amount over its total funding, where the one-month mismatch amount represents the Bank's stock of primary and secondary liquid assets plus expected cash inflows minus expected cash outflows during a one-month period of stress. The Bank must maintain this ratio above a minimum level of zero percent on a daily basis. The one-month mismatch ratio = 100 x (one-month mismatch dollar amount / total funding).

The one-year core funding ratio measures the extent to which loans and advances are funded by funding that is considered stable. The one-year core funding ratio = 100 x (one-year core funding dollar amount / BS13 total loans and advances) and must currently remain above 65 percent on a daily basis.

	Banking Group	
	Unaudited For the 3 months ended 31/3/23	Unaudited For the 3 months ended 31/12/22
One-week mismatch ratio	**6.8%**	7.2%
One-month mismatch ratio	**7.4%**	7.6%
One-year core funding ratio	**89.4%**	90.5%

Note 20 Risk Management *continued*

Concentrations of funding

The Banking Group's concentrations of funding are reported by industry sector and geographical location in the following table. The concentration of funding by industry sector is based on ANZSIC codes. The concentration of funding by geographical location is based on the principal market location of the funding programmes.

Dollars in Millions	Note	Banking Group Unaudited 31/3/23
Concentration by industry		
Customer deposits		
Agriculture, forestry and fishing		3,000
Mining		447
Manufacturing		1,956
Electricity, gas and water		142
Construction		1,569
Wholesale and retail trade		2,472
Accommodation, restaurants, culture and recreation		1,662
Transport and storage		1,619
Communications		440
Financial, investment and insurance		7,310
Property, business and personal services		13,476
Government, education, health and community services		3,358
Personal deposits		37,120
Total customer deposits by industry		74,571
Concentration by geography		
Wholesale funding		
New Zealand		17,004
Overseas[1]		17,673
Total wholesale funding by geography		34,677
Total funding		109,248
Total funding comprised:		
Customer deposits	10	74,571
Wholesale funding		
Due to central banks and other institutions		6,252
Collateral received		1,542
Other borrowings	10	4,287
Bonds and notes		19,451
Amounts due to related entities		1,195
Subordinated debt		1,950
Total wholesale funding		34,677
Total funding		109,248

[1] This represents the wholesale active funding programmes of BNZ-IF and the Bank from offshore markets.

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Assurance engagements performed by Ernst & Young

Our assurance procedures in relation to Bank of New Zealand (the "Bank") and the entities it controlled at 31 March 2023 or from time to time during the period (collectively the "Banking Group") consisted of the following:

- Limited assurance over the condensed consolidated interim financial statements (the "Financial Statements") of the Bank for the six months ended 31 March 2023 that are required by Clause 25 of the Registered Bank Disclosure Statements (New Zealand Incorporated Registered Banks) Order 2014 (as amended) (the "Order") included on pages 3 to 38 of the Disclosure Statement. These pages also include the Supplementary Information, and the Capital Adequacy and Regulatory Liquidity Information which are subject to separate conclusions as described below and so are not covered by the Financial Statements assurance.
- Limited assurance over the information required by Clause 22 of the Order to be disclosed in accordance with Schedule 5 (being the "additional information on statement of financial position" that is presented on the balance sheet, "additional information on income statement" that is presented on the income statement and in Notes 2 and 7, and additional information on concentrations of credit risk (Note 20), additional information on concentrations of funding (Note 20), additional information on interest rate sensitivity (Note 20), additional information on liquidity risk (Note 20) and reconciliation of mortgage-related amounts (Note 20)), Schedule 7 (Asset Quality in Notes 7 and 8), Schedule 13 (Concentration of Credit Exposures to Individual Counterparties in Note 17), Schedule 16 (Insurance business, securitisation, funds management, other fiduciary activities, and marketing and distribution of insurance products in Note 18) and Schedule 18 (Risk Management Policies in Note 20) of the Order (together the "Supplementary Information").
- Limited assurance over the information required by Clause 22 of the Order to be disclosed in accordance with Schedule 11 of the Order which is disclosed in Notes 19 and 20 (the "Capital Adequacy and Regulatory Liquidity Information").

Independent Auditor's Review Report to the Shareholder of Bank of New Zealand

Report on the Financial Statements and Supplementary Information

Conclusion

We have reviewed the Financial Statements and Supplementary Information (as defined above). The Financial Statements comprise:

- the balance sheet of the Banking Group as at 31 March 2023;
- the income statement, statement of comprehensive income, statement of changes in equity and cash flow statement for the six months then ended of the Banking Group; and
- the notes to the Financial Statements including a summary statement of significant accounting policies.

Based on our review nothing has come to our attention that causes us to believe that the:

- Financial Statements have not been prepared, in all material respects, in accordance with New Zealand Equivalent to International Accounting Standard 34: *Interim Financial Reporting* (NZ IAS 34) and International Accounting Standard 34: *Interim Financial Reporting* (IAS 34), and
- Supplementary Information that is required to be disclosed in accordance with Schedules 5, 7, 13, 16 and 18 of the Order:
  - does not present fairly, in all material respects, the matters to which it relates; or
  - is not disclosed, in all material respects, in accordance with those schedules.

This report is made solely to the Bank's shareholder. Our review has been undertaken so that we might state to the Bank's shareholder those matters we are required to state to them in an independent auditor's review report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Bank and the Bank's shareholder for our review work, for this report, or for the conclusions we have formed.

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Basis for conclusion

We conducted our review in accordance with New Zealand Standard on Review Engagements 2410 (Revised) *Review of Financial Statements Performed by the Independent Auditor of the Entity* (NZ SRE 2410 (Revised))**.** Our responsibilities are further described in the *Auditor's responsibilities for the review of the Financial Statements and Supplementary Information* section of our report.

We are independent of the Banking Group in accordance with the relevant ethical requirements in New Zealand relating to the audit of the annual financial statements, and we have fulfilled our other ethical responsibilities in accordance with these ethical requirements. Ernst & Young provides audit services, other assurance and agreed upon procedures services to the Banking Group. Partners and employees of our firm may deal with the Banking Group on normal terms within the ordinary course of trading activities of the business of the Banking Group. We have no other relationship with, or interest in, the Banking Group.

Directors' responsibilities for the Financial Statements and Supplementary Information

The directors are responsible, on behalf of the Bank, for the preparation and fair presentation of the Financial Statements in accordance with Clause 25 of the Order, which requires the Financial Statements to comply with NZ IAS 34 and IAS 34, and for such internal control as the directors determine is necessary to enable the preparation and fair presentation of Financial Statements that are free from material misstatement, whether due to fraud or error.

In addition, the directors are responsible, on behalf of the Bank, for the preparation of the Supplementary Information which presents fairly, in all material respects, the matters to which in relates in accordance with Schedules 5, 7, 13, 16 and 18 of the Order.

Auditor's responsibilities for the review of the Financial Statements and Supplementary Information

Our responsibility is to express a conclusion on the Financial Statements and Supplementary Information based on our review. NZ SRE 2410 (Revised) requires us to conclude whether anything has come to our attention that causes us to believe that the:

- Financial Statements, taken as a whole, have not been prepared, in all material respects, in accordance with NZ IAS 34 and IAS 34; and
- Supplementary Information that is required to be disclosed in accordance with Schedules 5, 7, 13, 16 and 18 of the Order:
  - does not present fairly, in all material respects, the matters to which it relates; or
  - is not disclosed, in all material respects, in accordance with those schedules.

A review in accordance with NZ SRE 2410 (Revised) is a limited assurance engagement. We perform procedures, consisting of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. The procedures performed in a review are substantially less than those performed in an audit conducted in accordance with International Standards on Auditing (New Zealand) and consequently do not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion on the Financial Statements and Supplementary Information.

The engagement partner on the review resulting in this independent auditor's review report is Emma Winsloe.

Ernst + Young

Chartered Accountants
25 May 2023
Auckland

Building a better working world

Independent Assurance Report to the Shareholder of Bank of New Zealand

Limited assurance report on the Capital Adequacy and Regulatory Liquidity Information

Conclusion

We have undertaken a limited assurance engagement on the Bank's Capital Adequacy and Regulatory Liquidity Information compliance, in all material respects, with Clause 22 and Schedule 11 of the Order.

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Capital Adequacy and Regulatory Liquidity Information disclosed in Notes 19 and 20 to the Financial Statements is not disclosed, in all material respects, in accordance with Schedule 11 of the Order.

Basis for Conclusion

We conducted our engagement in accordance with Standard on Assurance Engagements 3100 (Revised) *Compliance Engagements* (SAE 3100 (Revised)) issued by the New Zealand Auditing and Assurance Standards Board.

We believe the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Directors' Responsibilities

The Directors are responsible on behalf of the Bank for:

1. Compliance with the Order, including Clause 22 which requires the Capital Adequacy and Regulatory Liquidity Information to be included in the Disclosure Statement in accordance with Schedule 11 of the Order.
2. Identification of risks that threaten compliance with Clause 22 and Schedule 11 of the Order being met, controls which will mitigate those risks and monitoring ongoing compliance.

Our Independence and Quality Management

We have complied with the independence and other requirements of Professional and Ethical Standard 1 *International Code of Ethics for Assurance Practitioners (including International Independence Standards) (New Zealand)*, issued by the New Zealand Auditing and Assurance Standards Board which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Professional and Ethical Standard 3 *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements*, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Assurance Practitioner's Responsibilities

Our responsibility is to express a limited assurance conclusion on whether the Bank's Capital Adequacy and Regulatory Liquidity Information is not, in all material respects, disclosed in accordance with Schedule 11 of the Order. SAE 3100 (Revised) requires that we plan and perform our procedures to obtain limited assurance about whether anything has come to our attention that causes us to believe that the Bank's Capital Adequacy and Regulatory Liquidity Information is not, in all material respects, disclosed in accordance with Schedule 11 of the Order.

In a limited assurance engagement, the assurance practitioner performs procedures, primarily consisting of discussion and enquiries of management and others within the entity, as appropriate, and observation and walk-throughs, and evaluates the evidence obtained. The procedures selected depend on our judgement, including identifying areas where the risk of material non-compliance with the Clause 22 or Schedule 11 of the Order is likely to arise.

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Given the circumstances of the engagement, in performing the procedures listed above we:

- Obtained an understanding of the Bank's compliance framework and internal control environment to ensure the Capital Adequacy and Regulatory Liquidity Information is in compliance with the Reserve Bank of New Zealand's (RBNZ) prudential requirements for banks.
- Obtained an understanding of the processes, models, data and internal controls implemented over the preparation of the Capital Adequacy and Regulatory Liquidity Information.
- Agreed the Capital Adequacy and Regulatory Liquidity Information to information extracted from the Bank's models, accounting records or other supporting documentation, which included publicly available information as prescribed by Clause 18 of Schedule 11 of the Order.
- Performed analytical and other procedures on the Capital Adequacy and Regulatory Liquidity Information disclosed in accordance with Schedule 11 and considered its consistency with the Financial Statements of the Bank.
- Obtained an understanding and assessed the impact of any matters of non-compliance with the RBNZ's prudential requirements for banks that relate to capital adequacy and regulatory liquidity information and inspected relevant correspondence with RBNZ.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, we do not express a reasonable assurance opinion on compliance with the compliance requirements.

Ernst & Young provides audit services, other assurance and agreed upon procedures services to the Bank. Partners and employees of our firm may deal with the Bank on normal terms within the ordinary course of trading activities of the business of the Bank. We have no other relationship with, or interest in, the Bank.

Inherent Limitations

Because of the inherent limitations of an assurance engagement, together with the internal control structure it is possible that fraud, error, or non-compliance with compliance requirements may occur and not be detected. A limited assurance engagement on the Bank's disclosure of Capital Adequacy and Regulatory Liquidity Information in the Disclosure Statement for the six months ended 31 March 2023 does not provide assurance on whether compliance will continue in the future.

Restrictions on Use of Report

This report has been prepared for the Bank's shareholder for the purpose of providing limited assurance that the Bank has complied with Clause 22 and Schedule 11 of the Order. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Bank and the Bank's shareholder for our limited assurance work, for this report, or for the conclusions we have formed.

Ernst + Young

Chartered Accountants
Auckland
25 May 2023

Credit Ratings

As at the date on which this Disclosure Statement is signed, the Bank has the following credit ratings applicable to its long term senior unsecured obligations payable in New Zealand, in New Zealand dollars.

Rating Agency	Current Credit Rating	Qualification
S&P Global Ratings Australia Pty Limited	AA-	Outlook Stable
Moody's Investors Service Pty Limited	A1	Outlook Stable
Fitch Australia Pty Limited	A+	Outlook Stable

Conditions of Registration

Changes in Conditions of Registration

Between 30 September 2022 and 31 March 2023, the RBNZ made no changes to the Bank's Conditions of Registration.

Non-compliance with Conditions of Registration

In the Bank's Disclosure Statement for the year ended 30 September 2020, the Bank noted that the investigation phase of its comprehensive review of the data and systems used to calculate its regulatory capital had concluded and the Bank was continuing with remediation activities with the RBNZ being provided regular updates on progress. The Bank intends to provide a final update in its Disclosure Statement on completion of the programme.

Directors' Statement

The Directors of Bank of New Zealand state that each Director of the Bank believes, after due enquiry, that:

1. as at the date on which this Disclosure Statement is signed:
   (a) the Disclosure Statement contains all the information that is required by the Order; and
   (b) the Disclosure Statement is not false or misleading; and
2. during the six months ended 31 March 2023:
   (a) the Bank has complied with its Conditions of Registration applicable during that period, except as disclosed on page 43 of this Disclosure Statement;
   (b) credit exposures to connected persons were not contrary to the interests of the Banking Group; and
   (c) the Bank had systems in place to monitor and control adequately the Banking Group's material risks, including credit risk, concentration of credit risk, interest rate risk, currency risk, equity risk, liquidity risk, operational risk and other business risks, and that those systems were being properly applied.

This Disclosure Statement is dated 25th May 2023 and signed by Mr. McKay and Mr. Huggins as Directors and as responsible persons on behalf of all the other Directors.

D A McKay
Chair

D J Huggins
Managing Director and Chief Executive Officer