HSBC Bank Canada

Annual Report and Accounts 2023

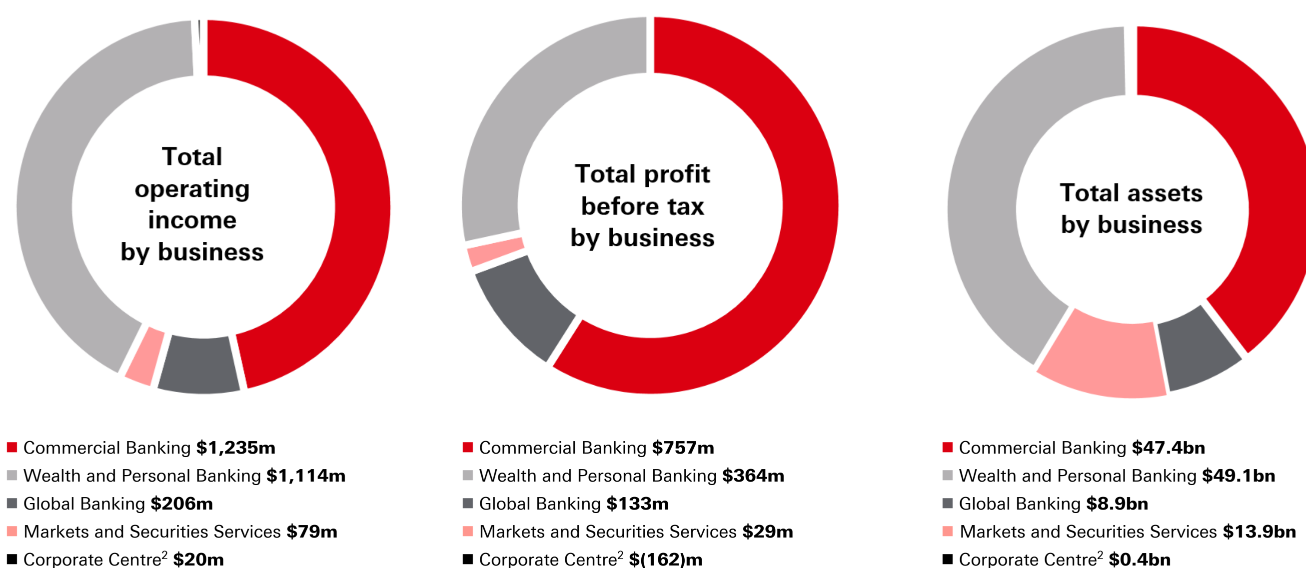
Contents

	Page
Overview	
Highlights	**1**
Message from the President and Chief Executive Officer	**3**
Management's discussion and analysis	**4**
Consolidated financial statements	
Statement of management's responsibility for financial information	**58**
Independent auditor's report	**59**
Consolidated financial statements	**62**
Notes on the consolidated financial statements	**68**
Additional information	
HSBC Group international network	**104**
Executive committee	**105**
Board of Directors	**105**
Shareholder information	**106**

Highlights

Another year of record[1] results

Financial performance by business for the year ended 31 December 2023



Total operating income by business	Total profit before tax by business	Total assets by business
Commercial Banking **$1,235m**	Commercial Banking **$757m**	Commercial Banking **$47.4bn**
Wealth and Personal Banking **$1,114m**	Wealth and Personal Banking **$364m**	Wealth and Personal Banking **$49.1bn**
Global Banking **$206m**	Global Banking **$133m**	Global Banking **$8.9bn**
Markets and Securities Services **$79m**	Markets and Securities Services **$29m**	Markets and Securities Services **$13.9bn**
Corporate Centre[2] **$20m**	Corporate Centre[2] **$(162)m**	Corporate Centre[2] **$0.4bn**

Financial performance for the year ended 31 December 2023

Total operating income

$2,654m ↑ 4.2%

(2022: $2,548m)

Profit before income tax expense

$1,121m ↑ 3.8%

(2022: $1,080m)

Profit attributable to the common shareholder

$750m ↑ 1.2%

(2022: $741m)

At 31 December 2023

Total assets

$119.7bn ↓ 6.7%

(At 31 Dec 2022: $128.3bn)

Common equity tier 1 ratio[3]

14.2% ↑ 260 bps

(At 31 Dec 2022: 11.6%)

Return on average common equity[4]

14.1% ↓ 90 bps

(At 31 Dec 2022: 15.0%)

1. *Record profit before income tax expense and total operating income for the year, surpassing the highest previously reported in 2022.*
2. *Corporate Centre is not an operating segment of the bank. The inclusion of this figure provides a reconciliation between operating segments and the entity results.*
3. *Refer to the 'Capital risk' section of the Management's Discussion and Analysis ('MD&A') for definition.*
4. *Refer to the 'Use of supplementary financial measures' section of the MD&A for a glossary of the measures used.*

Our business segments[1]

Our operating model consists of four businesses and a Corporate Centre, supported by a number of corporate functions and our Digital Business Services teams. On pages 13 to 16 we provide an overview of our performance in 2023 for each of these businesses, as well as our Corporate Centre.

Commercial Banking ('CMB')

We offer a full range of commercial financial services and tailored solutions to clients ranging from small enterprises to large corporates operating internationally. We connect businesses to opportunities through our relationship managers and digital channels, meeting our clients' financial needs by providing cross-border trade and payment services, by helping them to become more sustainable, and by giving them access to products and services offered by other business segments.

Wealth and Personal Banking ('WPB')

We offer a full range of competitive banking products and services for all Canadians to help them manage their finances, buy their homes, and save and invest for the future. Our business also has a large suite of global investment products and other specialized services available to serve our clients' international needs.

Global Banking ('GB')

We provide tailored financial services and products to major government, corporate and institutional clients worldwide. Our product specialists deliver a comprehensive range of transaction banking, financing, advisory, capital markets and risk management services. Our products, combined with our expertise across industries, enable us to help clients achieve their sustainability goals.

Markets and Securities Services ('MSS')

We provide tailored financial services and products to major government, corporate and institutional clients worldwide. Our knowledge and expertise of local and international markets coupled with our global reach enables us to provide comprehensive and bespoke services across various asset classes, which can be combined and customized to meet clients' specific objectives.

Year ended 31 December 2023

Total operating income

CMB	WPB	GB	MSS
$1,235m ↑ 3.2%	$1,114m ↑ 10%	$206m ↓ 7.6%	$79m ↓ 24%
(2022: $1,197m)	(2022: $1,010m)	(2022: $223m)	(2022: $104m)

Profit before income tax expense

CMB	WPB	GB	MSS
$757m ↑ 6.2%	$364m ↑ 16%	$133m ↑ 1.5%	$29m ↓ 45%
(2022: $713m)	(2022: $314m)	(2022: $131m)	(2022: $53m)

At 31 December 2023

Customer related lending assets[2]

CMB	WPB	GB	MSS
$36.5bn ↓ 0.8%	$36.3bn ↓ 1.1%	$3.9bn ↓ 13%	nil
(At 31 Dec 2022: $36.8bn)	(At 31 Dec 2022: $36.7bn)	(At 31 Dec 2022: $4.5bn)	(At 31 Dec 2022: nil)

1. *We manage and report our operations around four businesses and the results presented are for these businesses. The consolidated HSBC Bank Canada results presented on page 1 also include the Corporate Centre (see page 16 of the MD&A for more information). Corporate Centre is not an operating segment of the bank. The inclusion of Corporate Centre provides a reconciliation between operating segments and the entity results. The equivalent results for the Corporate Centre were: total operating income of $20m (2022 total operating income of $14m), profit before income tax expense was a loss of $162m (2022 was a loss of $131m) and customer assets were nil (2022: nil).*
2. *Customer related lending assets includes loans and advances to customers and customers' liability under acceptances.*

Message from the President and Chief Executive Officer

Linda Seymour
President and Chief Executive Officer

For over 40 years, HSBC Bank Canada has proudly served Canadian individuals and businesses both here at home and as they ventured out into the world beyond our borders while also serving the needs of international clients here in Canada.

Our 2023 profit before tax and total operating income improved, continuing a trend begun in 2020. In fact, they are the highest recorded[1] in our history. This is a testament to the commitment of our teams and the very strong relationships they have built with our clients over the years.

Profit before tax increased in three of our four businesses. In Commercial Banking, average loans and acceptances, average deposit balances and activity on corporate credit cards increased. Wealth and Personal Banking saw record[2] profit before tax as average deposit balances grew and there was higher income from our online brokerage. In Global Banking, transaction banking activities remained strong and trading income increased, amongst challenging market conditions.

The increase to our costs were related to preparations for the sale and transition to RBC. We have held the line on day to day expenses through prudent cost management.

We expect our sale to RBC to be completed in just a few weeks, on 28 March 2024. Subject to sale completion, this will be the last annual report published by HSBC Bank Canada. It has been our pleasure to serve all our valued clients in Canada and in their international endeavors for the last 40 years. Our entire team is proud and grateful that you have chosen us to help you fulfil your ambitions, and welcomed us in your communities. Our team looks forward to continuing to serve you in the coming years at RBC.

As we close out this chapter in HSBC's history, I want to express my personal thanks to our employees for their engagement and resilience, and to our clients for the trust they have placed in us.

Linda Seymour

President and Chief Executive Officer
HSBC Bank Canada
9 February 2024

1. *Record profit before income tax expense and total operating income for the year, surpassing the highest previously reported in 2022.*
2. *Record year since inception of WPB (previously Retail Banking and Wealth Management ('RBWM')) as a single global business in 2011.*

Management's discussion and analysis

	Page
Basis of preparation	4
Caution regarding forward looking statements	4
Who we are	5
Our strategy	5
Use of supplementary financial measures	6
Financial highlights	7
Financial performance	8
Movement in financial position	12
Our business segments	13
Summary quarterly performance	17
Economic review and outlook	18
Regulatory developments	19
Critical estimates and judgments	20
Changes in accounting policy during 2023	21
Future accounting developments	22
Off-balance sheet arrangements	22
Financial instruments	22
Disclosure controls and procedures, and internal control over financial reporting	22
Related party transactions	23
Risk	23

Basis of preparation

HSBC Bank Canada and its subsidiary undertakings (together 'the bank', 'we', 'our', 'HSBC') is an indirectly wholly-owned subsidiary of HSBC Holdings plc ('the parent', 'HSBC Holdings'). Throughout the Management's Discussion and Analysis ('MD&A'), the HSBC Holdings Group ('HSBC Group' or the 'Group') is defined as the parent and its subsidiary companies.

The MD&A is provided to enable readers to assess our financial condition and results of operations for the quarter and year ended 31 December 2023, compared to the same periods in the preceding year. The MD&A should be read in conjunction with our 2023 consolidated financial statements and related notes for the year ended 31 December 2023 ('consolidated financial statements'). This MD&A is dated 9 February 2024, the date that our consolidated financial statements and MD&A were approved by our Board of Directors ('the Board'). The references to 'notes' throughout this MD&A refer to notes on the consolidated financial statements for the year ended 31 December 2023.

The bank has prepared its consolidated financial statements in accordance with International Financial Reporting Standards issued by the International Accounting Standards Board ('IFRS® Accounting Standards') and in consideration of the accounting guidelines as issued by the Office of the Superintendent of Financial Institutions Canada ('OSFI'), as required under Section 308(4) of the Bank Act. Certain sections within the MD&A, that are marked with an asterisk (*), form an integral part of the accompanying consolidated financial statements. The abbreviations '$m' and '$bn' represent millions and billions of Canadian dollars, respectively. All tabular amounts are in millions of dollars except where otherwise stated.

Our continuous disclosure materials, including interim and annual filings, are available through a link on the bank's website at www.hsbc.ca and on the Canadian Securities Administrators' website at www.sedar.com. The required documents are also filed with the bank's Supplementary Prospectus on the United Kingdom Financial Conduct Authority ('FCA') National Storage Mechanism website at www.data.fca.org.uk and the London Stock Exchange at www.londonstockexchange.com. The bank currently has three Euro denominated covered bonds listed on the London Stock Exchange as of 31 December 2023. Complete financial, operational and investor information for HSBC Holdings and the HSBC Group, including HSBC Bank Canada, can be obtained from its website, www.hsbc.com, including copies of *HSBC Holdings Annual Report and Accounts 2023*. Information contained in or otherwise accessible through the websites mentioned does not form part of this report.

Caution regarding forward-looking statements

This document contains forward-looking information, including statements regarding the business and anticipated actions of the bank. These statements can be identified by the fact that they do not pertain strictly to historical or current facts. Forward-looking statements often include words such as 'anticipates', 'estimates', 'expects', 'projects', 'intends', 'plans', 'believes' and words and terms of similar substance in connection with discussions of future operating or financial performance. Examples of forward-looking statements in this document include, but are not limited, to statements made in 'Message from the President and Chief Executive Officer' on page 3, 'Our strategy' on page 5, 'Economic review and outlook' on page 18, 'Regulatory developments' on page 19, and 'Employee compensation and benefits' on page 79. By their very nature, these statements require us to make a number of assumptions and are subject to a number of inherent risks and uncertainties that may cause actual results to differ materially from those contemplated by the forward-looking statements. We caution you to not place undue reliance on these statements as a number of risk factors could cause our actual results to differ materially from the expectations expressed in such forward-looking statements. The 'Risk' section of the MD&A describes the most significant risks to which the bank is exposed and, if not managed appropriately, could have a material impact on our future financial results. These risk factors include: credit risk, treasury risk (inclusive of capital management, liquidity and funding risk, and interest rate risk), market risk, resilience risk, climate risk (inclusive of transition and physical risk impacts), regulatory compliance risk, financial crime risk, model risk and pension risk. Refer to the 'Risk' section of this report for a description of these risks. Additional factors that may cause our actual results to differ materially from the expectations expressed in such forward-looking statements include: general economic and market conditions, inflation, fiscal and monetary policies, changes in laws, regulations and approach to supervision, level of competition and disruptive technology, cyber threat and unauthorized access to systems, changes to our credit rating, interbank offered rate ('IBOR') including Canadian Dollar Offered Rate ('CDOR') transition, changes in accounting standards, changes in tax rates, tax law and policy, and its interpretation of taxing authorities, risk of fraud by employees or others, unauthorized transactions by employees and human error. Furthermore, on 29 November 2022, the HSBC Group announced an agreement to sell its 100% equity stake in HSBC Bank Canada (and its subsidiaries) to Royal Bank of Canada ('RBC') for a purchase price of $13.5bn; as well as all the existing preferred shares and subordinated debt of HSBC Bank Canada held by the HSBC Group at par value. On 1 September 2023, the Competition Bureau of Canada issued its report and finding of no competition concerns regarding the proposed sale. On 21 December 2023, the Federal Minister of Finance approved the proposed acquisition, allowing the sale to proceed. We expect the sale to close on 28 March 2024, subject to customary closing conditions. Risks relating to the effective migration and transition of HSBC Bank Canada's customers, data, systems, processes and people to RBC will be managed through our established risk management programs and processes. As well, there are inherent acquisition risks where the timings could be subject to change depending on the extent of progress achieved on preparatory activities that may affect the close date. For further details of this agreed sale, refer to 'Our strategy' on page 5. Our

success in delivering our strategic priorities and proactively managing the regulatory environment depends on the development and retention of our leadership and high-performing employees. The ability to continue to attract, develop and retain competent individuals in the highly competitive and active employment market continues to prove challenging. Despite contingency plans we have in place for resilience in the event of sustained and significant operational disruption, our ability to conduct business may be adversely affected by disruption in the infrastructure that supports both our operations and the communities in which we do business, including but not limited to disruption caused by public health emergencies, pandemics, environmental disasters, terrorist acts and geopolitical events. Refer to the 'Factors that may affect future results' section of this report for a description of these risk factors. We caution you that the risk factors disclosed above are not exhaustive, and there could be other uncertainties and potential risk factors not considered here which may adversely affect our results and financial condition. Any forward-looking statements in this document speak only as of the date of this document. We do not undertake any obligation to, and expressly disclaim any obligation to, update or alter our forward-looking statements, whether as a result of new information, subsequent events or otherwise, except as required under applicable securities legislation.

Who we are

HSBC Bank Canada is the leading international bank in Canada. We help companies and individuals across Canada to do business and manage their finances here and internationally through four businesses: Commercial Banking, Wealth and Personal Banking, Global Banking, and Markets and Securities Services. No international bank has our Canadian presence and no domestic bank has our international reach.

HSBC Holdings plc, the parent company of HSBC Bank Canada, is headquartered in London, United Kingdom. The HSBC Group serves customers worldwide from offices in 62 countries and territories. With assets of US$3,039bn at 31 December 2023, HSBC is one of the world's largest banking and financial services organizations.

HSBC's purpose – Opening up a world of opportunity – explains why we exist. We're here to use our unique expertise, capabilities, breadth and perspectives to open up new opportunities for our customers. We're bringing together the people, ideas and capital that nurture progress and growth, helping to create a better world – for our customers, our people, our investors, our communities and the planet we all share.

Shares in HSBC Holdings are listed on the London, Hong Kong, New York and Bermuda stock exchanges. The HSBC Holdings shares are traded in New York in the form of American Depositary Receipts. HSBC Bank Canada has Euro denominated covered bonds listed on the London Stock Exchange. For further details on the covered bond issuances, refer to the 'Liquidity and funding risk' section on page 46.

Our strategy

Our Strategic Priorities in 2023

Our strategy, aligned to the HSBC Group purpose, values and strategy, positions us to be the preferred international finance partner for our customers capitalizing on our strategic advantages in Canada.

In 2023, we continued to execute our strategy during a time of transition while focusing on our strengths in international connectivity to realize value from the HSBC Group network across all of our business segments to fulfil our customers' cross border banking needs, collaborating with colleagues in the Americas region and in other geographies where HSBC has a presence. In Wealth and Personal Banking, we maintained a strong momentum in growing our targeted affluent and international client segments with sustained new-to-bank client acquisition.

HSBC Bank Canada is committed to empowering our people and creating a dynamic and inclusive culture. This year we supplemented our regular Future Skills training with workshops focused on resilience and communication to help our employees develop skills needed to cope with ambiguity and prepare for the future. We continued our hybrid working model focusing on flexibility, engagement, well-being and sustainability to create a positive experience for all employees. Our bank is committed to strengthening inclusion in our workplaces and communities and maintaining a connected and collaborative workforce that reflects the customers we serve and the communities in which we operate.

In 2023, we also continued to support the transition to a net zero economy by working closely with our customers to develop solutions to reduce emissions, taking into account the unique challenges for individual businesses, sectors, and geographies.

Agreed sale of HSBC Bank Canada

On 29 November 2022, the HSBC Group announced an agreement to sell its 100% equity stake in HSBC Bank Canada (and its subsidiaries) to Royal Bank of Canada ('RBC') for a purchase price of $13.5bn; as well as all the existing preferred shares and subordinated debt of HSBC Bank Canada held by the HSBC Group at par value. On 1 September 2023, the Competition Bureau of Canada issued its report and finding of no competition concerns regarding the proposed sale. On 21 December 2023, the Federal Minister of Finance approved the proposed acquisition, allowing the sale to proceed. We expect the sale to close on 28 March 2024, subject to customary closing conditions.

Selected awards and recognition

Award	Awarded by
HSBC Bank Canada awards	
Trade Finance Market Leader and Best Service Awards in Canada	Euromoney
Best Next-Generation Offering	The Digital Banker - Global Private Banking Innovation Awards for Service Excellence
Outstanding Client Experience in Wealth Management	The Digital Banker - Global Private Banking Innovation Awards in Wealth Management
Best Mobile Banking Initiative	The Digital Banker - Global Retail Banking Innovation
Best Digital Banking Sales Initiative	The Digital Banker - Global Retail Banking Innovation
Best Current Account - North America	The Digital Banker - Global Retail Banking Innovation
Banking and Financial Services Law Department of the Year	Canadian Law Awards

Use of supplementary financial measures

In evaluating our performance, we use supplementary financial measures which have been calculated from IFRS Accounting Standard figures. Following is a glossary of the relevant measures used throughout this document but not presented within the consolidated financial statements.

Return on average common shareholder's equity is calculated as profit attributable to the common shareholder for the period divided by average[1] common equity.

Return on average risk-weighted assets is calculated as profit before income tax expense divided by the average[1] risk-weighted assets.

Cost efficiency ratio is calculated as total operating expenses as a percentage of total operating income.

Operating leverage ratio is calculated as the difference between the rates of change for operating income and operating expenses.

Net interest margin is net interest income expressed as a percentage of average[1] interest earning assets[2].

Change in expected credit losses to average gross loans and advances and acceptances is calculated as the change in expected credit losses[3] as a percentage of average[1] gross loans and advances to customers and customers' liabilities under acceptances.

Change in expected credit losses on stage 3 loans and advances and acceptances to average gross loans and advances and acceptances is calculated as the change in expected credit losses[3] on stage 3 assets as a percentage of average[1] gross loans and advances to customers and customers' liabilities under acceptances.

Total stage 3 allowance for expected credit losses to gross stage 3 loans and advances and acceptances is calculated as the total allowance for expected credit losses[3] relating to stage 3 loans and advances to customers, and customers' liabilities under acceptances as a percentage of stage 3 loans and advances to customers and customers' liabilities under acceptances.

Net write-offs as a percentage of average customer advances and acceptances is calculated as net write-offs as a percentage of average[1] net customer advances and customers' liabilities under acceptances.

Ratio of customer advances to customer accounts is calculated as loans and advances to customers as a percentage of customer accounts.

1. *The net interest margin is calculated using daily average balances. All other financial measures use average balances that are calculated using quarter-end balances.*
2. *See 'Summary of interest income by types of assets' table on page 9 for the composition of interest earning assets.*
3. *Change in expected credit losses relates primarily to loans, acceptances and commitments.*

Financial highlights

Financial performance and position

($millions, except where otherwise stated)	Footnote	Year ended 31 Dec 2023	31 Dec 2022	31 Dec 2021
Financial performance for the year ended 31 December				
Total operating income		**2,654**	2,548	2,215
Change in expected credit losses and other credit impairment charges - (charge)/release		**(63)**	(110)	45
Operating expenses		**(1,470)**	(1,358)	(1,308)
Profit before income tax expense		**1,121**	1,080	952
Profit attributable to the common shareholder		**750**	741	672
Basic and diluted earnings per common share ($)		**1.37**	1.35	1.22

($millions, except where otherwise stated)	Footnote	At 31 Dec 2023	31 Dec 2022	31 Dec 2021
Financial position at 31 December				
Total assets		**119,710**	128,302	119,853
Loans and advances to customers		**74,093**	74,862	68,699
Customer accounts		**83,236**	82,253	73,626
Ratio of customer advances to customer accounts (%)	1	**89.0**	91.0	93.3
Common shareholder's equity		**5,935**	4,818	5,776

Financial ratios and capital measures

	Footnotes	Year ended 31 Dec 2023	31 Dec 2022
Financial ratios (%)	1		
Return on average common shareholder's equity		**14.1**	15.0
Return on average risk-weighted assets		**2.5**	2.5
Cost efficiency ratio		**55.4**	53.3
Operating leverage ratio	2	**n/a**	11.2
Net interest margin		**1.58**	1.50
Change in expected credit losses to average gross loans and advances and acceptances		**0.08**	0.14
Change in expected credit losses on stage 3 loans and advances and acceptances to average gross loans and advances and acceptances		**0.11**	0.12
Total stage 3 allowance for expected credit losses to gross stage 3 loans and advances and acceptances		**21.8**	26.8
Net write-offs as a percentage of average loans and advances and acceptances		**0.13**	0.19

	Footnotes	At 31 Dec 2023	31 Dec 2022
Capital, leverage and liquidity measures			
Common equity tier 1 capital ratio (%)	3	**14.2**	11.6
Tier 1 ratio (%)	3	**16.8**	14.1
Total capital ratio (%)	3	**18.6**	16.4
Leverage ratio (%)	3	**5.5**	4.7
Risk-weighted assets ($m)	3	**43,416**	44,656
Liquidity coverage ratio (%)	4	**170**	164

1. *Refer to the 'Use of supplementary financial measures' section of this document for a glossary of the measures used.*
2. *n/a is shown where the ratio has resulted in a negative ratio.*
3. *Capital ratios and risk weighted assets are calculated using OSFI's Capital Adequacy Requirements ('CAR') guideline, the Leverage ratio is calculated using OSFI's Leverage Requirements ('LR') guideline. The CAR and LR guidelines are based on the Basel III guidelines. Refer to the 'Capital risk' section of this document for more information.*
4. *The Liquidity coverage ratio is calculated using OSFI's Liquidity Adequacy Requirements ('LAR') guideline, which incorporates the Basel liquidity standards. The LCR in this table has been calculated using averages of the three month-end figures in the quarter. Refer to the 'Liquidity and funding risk' section of this document for more information.*

Financial performance

Summary consolidated income statement

	Quarter ended		Year ended	
	31 Dec 2023	31 Dec 2022	**31 Dec 2023**	31 Dec 2022
	$m	$m	**$m**	$m
Net interest income	**399**	479	**1,721**	1,634
Net fee income	**183**	192	**753**	779
Net income from financial instruments held for trading	**45**	33	**149**	99
Other items of income	**9**	10	**31**	36
Total operating income	**636**	714	**2,654**	2,548
Change in expected credit losses and other credit impairment charges - (charge)	**(22)**	(28)	**(63)**	(110)
Net operating income	**614**	686	**2,591**	2,438
Total operating expenses	**(386)**	(394)	**(1,470)**	(1,358)
Profit before income tax expense	**228**	292	**1,121**	1,080
Income tax expense	**(44)**	(78)	**(293)**	(288)
Profit for the period	**184**	214	**828**	792

For the quarter and year ended 31 December 2023 compared with the same periods in the prior year, unless otherwise stated.

Continuing the trend that began in 2020, our 2023 profit before tax and total operating income rose. For the second consecutive year, we achieved record[1] results. Our profit before tax and total operating income for the year are the highest recorded[1] in our history. Profit before income tax expense was $1,121m, up $41m or 3.8% for the year, increasing in three of our four businesses. The increase was largely due to higher net interest and trading income, and lower charges in expected credit losses. This was partly offset by an increase in operating expenses largely related to the agreed sale of HSBC Bank Canada.

Profit before income tax expense for the quarter was $228m, down $64m or 22%, as a result lower net interest income, partly offset by higher trading income, lower operating expenses and lower charges in expected credit losses.

Q4 2023 vs. Q4 2022

Operating income for the quarter was $636m, a decrease of $78m or 11%. The decrease was primarily from lower net interest income as a result of higher cost of liabilities due to rising interest rates and change in deposit mix, partly offset by increased asset yields. Driven by the continued challenging market conditions, net fee income decreased in credit facility fees from fewer originations in Global Banking and lower fees from investment funds under management in our Wealth and Personal Banking business. These decreases were partly offset by higher underwriting fees in Global Banking and increased activity in cards netted with higher corresponding fee expense from increased activity and interbank clearing fees. These decreases were partly offset by higher trading income in our online brokerage business due to the higher interest rate environment.

The change in expected credit losses for the quarter resulted in a charge of $22m primarily due to new charges in non-performing loans and the impact of rising interest rates on the mortgage portfolio. In 2022, the charge of $28m for the quarter was primarily driven by an adverse movement in forward-looking macro-economic variables on performing loans at that time.

Total operating expenses were $386m, a decrease of $8m or 2% for the quarter. This was mainly due to prior year's impairment of intangible assets relating to the agreed sale of HSBC Bank Canada, in addition to lower investment spend in 2023. This was partly offset by higher costs relating to the agreed sale of HSBC Bank Canada.

2023 vs. 2022

Operating income for the year was $2,654m, an increase of $106m or 4.2%, reaching our highest total operating income on record[1]. The increase was mainly due to higher net interest income as a result of central bank rate increases over the past year and higher average loans and advances to customers compared to 2022, partly offset by the higher cost of liabilities as noted in the quarter. Higher trading income and increased activity in cards, also contributed to the increase. These increases were partly offset by the challenging market conditions driving lower fees from investment funds under management in Wealth and Personal Banking, and lower credit facilities fees in Global Banking. The corresponding fee expense from increased activity and interbank clearing fees, also contributed to the decrease in total net fee income.

The change in expected credit losses for the year resulted in a charge of $63m primarily due to new charges in non-performing loans and the impact of rising interest rates on the mortgage portfolio. This was partly offset by a release in performing loans due to a relative improvement in forward-looking macro-economic variables. In 2022, the charge of $110m was driven by the same factors as described in the quarter, coupled with a significant charge for a material stage 3 loan in the first half of 2022, partly offset by a release in performing loans during the first quarter of 2022 from an improvement in macro-economic variables at that time.

Total operating expenses were $1,470m, an increase of $112m or 8.2% for the year mainly due to increased costs relating to the agreed sale of HSBC Bank Canada, partly offset by lower investment spend in 2023.

1. *Record profit before income tax expense and total operating income for the year, surpassing the highest previously reported in 2022.*

Performance by income and expense item

For the quarter and year ended 31 December 2023 compared with the same periods in the prior year, unless otherwise stated.

Net interest income

Net interest income decreased by $80m or 17% for the quarter primarily driven by higher cost of liabilities due to rising interest rates and change in deposit mix, partly offset by increased asset yields.

Net interest income increased by $87m or 5.3% for the year due to the impact of the central bank rate increases over the year and higher average loans and advances to customers compared to 2022, partly offset by the same factors described in the quarter.

Summary of interest income by types of assets

		Quarter ended						Year ended					
		31 Dec 2023			31 Dec 2022			**31 Dec 2023**			31 Dec 2022		
	Footnotes	**Average balance**	**Interest income**	**Yield**	Average balance	Interest income	Yield	**Average balance**	**Interest income**	**Yield**	Average balance	Interest income	Yield
		$m	**$m**	**%**	$m	$m	%	**$m**	**$m**	**%**	$m	$m	%
Short-term funds and loans and advances to banks	1	**7,247**	**91**	**4.98**	6,039	57	3.76	**6,510**	**306**	**4.70**	8,651	129	1.49
Loans and advances to customers	2	**73,831**	**975**	**5.24**	75,916	856	4.47	**74,367**	**3,763**	**5.06**	73,325	2,522	3.44
Reverse repurchase agreements - non-trading		**3,565**	**63**	**6.98**	5,701	80	5.59	**4,368**	**278**	**6.36**	6,755	170	2.53
Financial investments	3	**22,962**	**228**	**3.94**	23,266	183	3.12	**22,976**	**856**	**3.73**	19,820	380	1.91
Other interest-earning assets	4	**642**	**8**	**5.04**	894	8	3.66	**674**	**31**	**4.62**	730	18	2.51
Total interest-earning assets (A)		**108,247**	**1,365**	**5.00**	111,816	1,184	4.20	**108,895**	**5,234**	**4.81**	109,281	3,219	2.95
Trading assets and financial assets designated at fair value	5	**2,987**	**32**	**4.30**	5,970	54	3.61	**3,101**	**124**	**3.99**	4,843	136	2.82
Non-interest-earning assets	6	**10,071**	**—**	**—**	12,088	—	—	**10,813**	**—**	**—**	11,262	—	—
Total		**121,305**	**1,397**	**4.57**	129,874	1,238	3.78	**122,809**	**5,358**	**4.36**	125,386	3,355	2.68

1. *'Short-term funds and loans and advances to banks' includes interest-earning cash and balances at central banks and loans and advances to banks.*
2. *'Loans and advances to customers' includes gross interest-earning loans and advances to customers.*
3. *'Financial investments' includes debt instruments at fair value through other comprehensive income ('FVOCI') and debt instruments measured at amortized costs.*
4. *'Other interest-earning assets' includes cash collateral and other interest-earning assets included within 'Other assets' on the balance sheet.*
5. *Interest income and expense on trading assets and liabilities is reported in `Net income from financial instruments held for trading' in the consolidated income statement.*
6. *'Non-interest-earning assets' includes non-interest earning cash and balances at central banks, items in the course of collection from other banks, equity shares held included within 'Trading assets', other financial assets mandatorily measured at fair value through profit or loss, derivatives, non-interest-earning loans and advances to banks and customers and impairment allowances, equity instruments at fair value through other comprehensive income included within 'Financial investments' on the balance sheet, customers' liability under acceptances, property, plant and equipment, goodwill and intangible assets, deferred and current tax assets and non-interest-earning other assets.*

Summary of interest expense by type of liability and equity

		Quarter ended						Year ended					
		31 Dec 2023			31 Dec 2022			**31 Dec 2023**			31 Dec 2022		
	Footnotes	**Average balance**	**Interest expense**	**Cost**	Average balance	Interest expense	Cost	**Average balance**	**Interest expense**	**Cost**	Average balance	Interest expense	Cost
		$m	**$m**	**%**	$m	$m	%	**$m**	**$m**	**%**	$m	$m	%
Deposits by banks	1	**334**	**2**	**1.95**	594	2	1.47	**512**	**14**	**2.52**	923	3	0.35
Customer accounts	2	**75,920**	**755**	**3.95**	74,549	476	2.53	**74,300**	**2,634**	**3.54**	68,712	930	1.35
Repurchase agreements - non-trading		**4,361**	**74**	**6.73**	4,979	73	5.84	**4,320**	**281**	**6.51**	6,410	160	2.50
Debt securities in issue and subordinated debt		**11,554**	**113**	**3.89**	16,055	136	3.37	**13,656**	**508**	**3.73**	16,706	427	2.56
Other interest-bearing liabilities	3	**2,460**	**22**	**3.53**	2,436	18	3.00	**2,415**	**76**	**3.17**	2,527	65	2.62
Total interest bearing liabilities (B)		**94,629**	**966**	**4.05**	98,613	705	2.84	**95,203**	**3,513**	**3.69**	95,278	1,585	1.66
Trading liabilities	4	**1,776**	**18**	**4.08**	4,871	45	3.68	**2,407**	**92**	**3.82**	4,086	116	2.84
Non-interest bearing current accounts	5	**7,043**	**—**	**—**	8,397	—	—	**7,226**	**—**	**—**	8,555	—	—
Total equity and other non-interest bearing liabilities	6	**17,857**	**—**	**—**	17,993	—	—	**17,973**	**—**	**—**	17,467	—	—
Total		**121,305**	**984**	**3.22**	129,874	750	2.29	**122,809**	**3,605**	**2.94**	125,386	1,701	1.36
Net interest income (A-B)			**399**			479			**1,721**			1,634	

1. *'Deposits by banks' includes interest-bearing bank deposits only.*
2. *'Customer accounts' includes interest-bearing customer accounts only.*
3. *'Other interest-bearing liabilities' includes cash collateral and other interest-bearing liabilities included within 'Other liabilities' on the balance sheet.*
4. *Interest income and expense on trading assets and liabilities is reported in `Net income from financial instruments held for trading' in the consolidated income statement.*
5. *'Non-interest bearing current accounts' is included within 'Customer accounts' on the balance sheet.*
6. *'Total equity and other non-interest bearing liabilities' includes non-interest bearing bank deposits and other customer accounts not included within 'Non-interest bearing current accounts', items in the course of transmission to other banks, derivatives, acceptances, accruals and deferred income, retirement benefit liabilities, provisions, current tax liabilities and non-interest bearing other liabilities.*

Net fee income

	Quarter ended		Year ended	
	31 Dec 2023	31 Dec 2022	**31 Dec 2023**	31 Dec 2022
	$m	$m	**$m**	$m
Account services	**19**	20	**78**	77
Broking income	**3**	1	**11**	13
Cards	**28**	26	**108**	96
Credit facilities	**82**	85	**334**	341
Funds under management	**53**	55	**215**	224
Imports/exports	**3**	2	**11**	11
Insurance agency commission	**1**	1	**5**	4
Guarantee and other	**11**	13	**47**	50
Remittances	**12**	13	**49**	48
Underwriting and advisory	**10**	6	**28**	27
Fee income	**222**	222	**886**	891
Less: fee expense	**(39)**	(30)	**(133)**	(112)
Net fee income	**183**	192	**753**	779

Net fee income decreased by $9m or 4.7% for the quarter largely driven by the continued challenging market conditions, resulting in lower credit facility fees from fewer originations in our Global Banking business and lower fees from investment funds under management in Wealth and Personal Banking. These decreases were partly offset by higher underwriting fees and brokerage commissions in our Global Banking business and increased activity in cards. Higher fee expense relating to corresponding increased activity and interbank clearing fees, also contributed to the decrease.

Net fee income decreased by $26m or 3.3% for the year. The decrease in fee income was mainly driven by challenging market conditions which resulted in lower fees from investment funds under management in Wealth and Personal Banking. This was coupled with lower credit facility fees and brokerage commissions in our Global Banking business and higher fee expense relating to interbank clearing fees. These decreases were partly offset by increased activity in cards and increased transactions in account services netted by the corresponding increase in fee expense. Higher credit facility fees in Commercial Banking from higher volumes of bankers' acceptances for the year, also contributed to the offset.

Net income from financial instruments held for trading

	Quarter ended		Year ended	
	31 Dec 2023	31 Dec 2022	**31 Dec 2023**	31 Dec 2022
	$m	$m	**$m**	$m
Trading activities	**33**	22	**115**	93
Credit valuation, debit valuation and funding fair value adjustments	**(4)**	(4)	**(3)**	1
Net interest from trading activities	**14**	10	**32**	21
Hedge ineffectiveness	**2**	5	**5**	(16)
Net income from financial instruments held for trading	**45**	33	**149**	99

Net income from financial instruments held for trading for the quarter increased by $12m or 36%. The increase was mainly from higher income from rates trading activity. Higher net interest income from trading activities mainly due to the higher interest rate environment, also contributed to the increase. These increases were partly offset by an unfavourable change in hedge ineffectiveness attributed to cash flow hedge instruments.

Net income from financial instruments held for trading increased by $50m or 51% for the year, driven by the same factors as described in the quarter. This was coupled with higher income from trading activities as a result of the prior year's adverse movement in the value of a loan syndication facility and a favourable change in hedge ineffectiveness mainly attributed to cash flow hedge instruments. These increases were partly offset by unfavourable movements on fair valuation adjustments on forward-looking scenarios compared to the prior year.

Other items of income

	Quarter ended		Year ended	
	31 Dec 2023	31 Dec 2022	**31 Dec 2023**	31 Dec 2022
	$m	$m	**$m**	$m
Changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss	**—**	(1)	**—**	(2)
Gains less losses from financial investments	**—**	—	**6**	2
Other operating income	**9**	11	**25**	36
Other items of income	**9**	10	**31**	36

Other items of income decreased by $1m or 10% for the quarter and $5m or 14% for the year.

Change in expected credit losses

	Quarter ended		Year ended	
	31 Dec 2023	31 Dec 2022	**31 Dec 2023**	31 Dec 2022
	$m	$m	**$m**	$m
Change in expected credit loss and other credit impairment charges - performing loans (stage 1 and 2) - charge/(release)	**1**	13	**(30)**	7
Change in expected credit loss and other credit impairment charges - non-performing loans (stage 3) - charge	**21**	15	**93**	103
Change in expected credit loss and other credit impairment charges - charge	**22**	28	**63**	110

The change in expected credit losses for the quarter was a charge of $22m primarily driven by new charges in non-performing loans and the impact of rising interest rates on the mortgage portfolio.

In 2022, the charge of $28m was primarily driven by the continued adverse movement in forward-looking macro-economic variables in performing loans, in addition to a net charge in non-performing loans.

The change in expected credit losses for the year resulted in a charge of $63m driven by the same factors as described in the quarter; partly offset by a release in performing loans due to a relative improvement in forward-looking macro-economic variables.

The change in expected credit losses for the prior year resulted in a charge of $110m driven by a significant charge for a material stage 3 loan in the first half of 2022. Change in expected credit losses for performing loans resulted in a net charge driven by an adverse movement in forward-looking macro-economic variables in the last nine months of 2022, partly offset by a release in performing loans mainly from COVID-19 related allowances in the first quarter of 2022.

Total operating expenses

	Quarter ended		Year ended	
	31 Dec 2023	31 Dec 2022	**31 Dec 2023**	31 Dec 2022
	$m	$m	**$m**	$m
Employee compensation and benefits	**196**	156	**700**	607
General and administrative expenses	**151**	174	**586**	600
Depreciation and impairment of property, plant and equipment	**14**	14	**56**	63
Amortization and impairment of intangible assets	**25**	50	**128**	88
Total operating expenses	**386**	394	**1,470**	1,358

Total operating expenses decreased by $8m or 2% for the quarter mainly due to prior year's impairment of intangible assets relating to the agreed sale of HSBC Bank Canada, in addition to lower investment spend in 2023. This was partly offset by higher costs relating to the agreed sale of HSBC Bank Canada and higher staff-related costs.

Total operating expenses increased by $112m or 8.2% for the year mainly due to costs relating to the agreed sale of HSBC Bank Canada which includes the re-assessment of the useful life of intangible assets. Higher staff-related costs also contributed to the increase. This was partly offset by lower investment spend in 2023.

Income tax expense

The effective tax rate for the quarter was 19.0%, compared with 26.7% for the same period in the prior year. The difference in the effective tax rate was primarily due to a decrease in our future tax liabilities and a refund of taxes related to prior years.

The effective tax rate for the year was 26.1%, compared with 26.7% in 2022. The tax rate for the year is effectively the bank's statutory tax rate, adjusted for a decrease in tax liabilities. The statutory tax rate was 27.8% in 2023, compared to 26.5% in 2022. The 2023 rates incorporate the additional 1.5% tax announced in April 2022 for banks and life insurance groups when its taxable income is above $100m.

Movement in financial position

Summary consolidated balance sheet

	31 Dec 2023 $m	31 Dec 2022 $m
Assets		
Cash and balances at central bank	**7,089**	6,326
Trading assets	**3,253**	4,296
Derivatives	**3,964**	6,220
Loans and advances	**74,486**	75,206
Reverse repurchase agreements – non-trading	**3,595**	6,003
Financial investments	**22,420**	23,400
Customers' liability under acceptances	**2,595**	3,147
Other assets	**2,308**	3,704
Total assets	**119,710**	128,302
Liabilities and equity		
Liabilities		
Deposits by banks	**360**	712
Customer accounts	**83,236**	82,253
Repurchase agreements – non-trading	**3,654**	4,435
Trading liabilities	**1,870**	3,732
Derivatives	**4,095**	6,575
Debt securities in issue	**10,174**	15,735
Acceptances	**2,599**	3,156
Other liabilities	**6,687**	5,786
Total liabilities	**112,675**	122,384
Total equity	**7,035**	5,918
Total liabilities and equity	**119,710**	128,302

Assets

Total assets at 31 December 2023 were $119.7bn, a decrease of $8.6bn or 6.7% from 31 December 2022. This was mainly due to reduced balance sheet use for trading activities resulting in a decrease in reverse repurchase agreements of $2.4bn and trading assets of $1.0bn. Derivatives were also lower by $2.3bn as a result of market movements. Volumes of loans and acceptances to customers decreased mainly in mortgages and commercial lending as result of current market conditions; lowering loans and advances, customers' liability under acceptances, and other assets.

Liabilities

Total liabilities at 31 December 2023 were $112.7bn, a decrease of $9.7bn or 7.9% from 31 December 2022. The decrease was primarily from net maturities in debt securities in issue of $5.6bn. The decrease in derivatives of $2.5bn and trading liabilities of $1.9bn corresponds with the movement in the respective assets. These decreases were partly offset with higher volumes in deposits mainly from customer accounts of $1.0bn in Wealth and Personal Banking, and Global Banking.

Equity

Total equity at 31 December 2023 was $7.0bn, an increase of $1.1bn or 19%, from 31 December 2022. The increase was primarily from profits after tax of $0.8bn generated in the year and other comprehensive income of $0.4bn largely as a result of net gains mainly from favourable interest rate market movements in cash flow hedges. This was partly offset by dividends paid on preferred shares of $0.1bn.

Our business segments

We manage and report our operations around the following businesses: Commercial Banking, Wealth and Personal Banking, Global Banking, and Markets and Securities Services.

Commercial Banking

Commercial Banking ('CMB') offers a full range of commercial financial services and tailored solutions to clients ranging from small enterprises to large corporates operating internationally. We connect businesses to opportunities through our relationship managers and digital channels, meeting our clients' financial needs by providing cross-border trade and payment services, by helping them to become more sustainable, and by giving them access to products and services offered by other business segments.

Our clients are segmented based on their needs and degree of complexity ranging from Business Banking for small enterprises to Corporate Banking for companies with complex banking needs and a global footprint. Our front line is represented in four regions, British Columbia, Prairies, Ontario and Atlantic, and Quebec with dedicated relationship managers supporting clients in both segments.

Products and services

- *Credit and Lending:* we offer a broad range of domestic and cross-border financing solutions, including overdrafts, corporate cards, term loans, syndicated financing and project finance.
- *Global Trade and Receivables Finance ('GTRF')*: we provide services and financing for buyers and suppliers throughout the trade cycle, helping them to use working capital efficiently, manage trade risk and fund their supply chains.
- *Global Payments Solutions ('GPS')*: helps clients move, control, access and invest their cash through a global network strategically located where most of the world's payments and capital flows originate. Products include non-retail deposit taking and international, regional and domestic payments and cash management services. In addition, our digital platforms enable clients to make seamless payments between countries and currencies.
- *Global Banking ('GB') and Markets and Securities Services ('MSS')*: we provide commercial clients with access to a wide range of investment banking and local and global capital financing solutions including debt, equity and advisory services in addition to services in credit, rates and foreign exchange.

Review of financial performance[1]

Summary income statement

	Year ended	
	31 Dec 2023	31 Dec 2022
	$m	$m
Net interest income	**747**	712
Non-interest income	**488**	485
Total operating income	**1,235**	1,197
Change in expected credit losses - (charge)	**(33)**	(73)
Net operating income	**1,202**	1,124
Total operating expenses	**(445)**	(411)
Profit before income tax expense	**757**	713

Overview

Total operating income increased by $38m or 3.2% for the year. CMB has maintained positive momentum in 2023 with average loans and acceptances increasing by $1.7bn or 4.8% in the year and average deposit balances increasing by $0.7bn or 2.5% compared to 2022. Net interest income improved due to the impact of the central bank rate increases over the year and higher average loan volumes. Non-interest income has also improved with higher volumes of bankers' acceptances and increased activity in corporate credit cards.

Profit before income tax was up by $44m or 6.2%, primarily due to higher operating income and lower charges in expected credit losses compared to the prior year.

Financial performance by income and expense item

Net interest income increased by $35m or 4.9% as a result of the central bank rate increases over the year and higher average loan and deposit balances. This was partly offset by higher cost of liabilities due to rising interest rates and change in deposit mix,

Non-interest income increased by $3m or 0.6%. This was mainly due to an increase in foreign exchange transaction income, higher fee income from higher volumes of bankers' acceptances and an increase in corporate credit cards activity. These increases were partly offset by higher fee expense as a result of increased activity and interbank clearing fees.

Change in expected credit losses resulted in a charge of $33m primarily from new charges in non-performing loans, partly offset by a release in performing loans due to a relative improvement in forward-looking macro-economic variables.

In 2022, the charge was primarily driven by a charge on performing loans relating to the adverse movement in forward-looking macro-economic variables, coupled with a significant charge for a material stage 3 loan in the first half of 2022. This was partly offset by a release in performing loans from COVID-19 related allowances in the first quarter of 2022.

Total operating expenses increased by $34m or 8.3% mainly due to higher staff-related costs.

1. *For the year ended 31 December 2023 compared with the same period in the prior year, unless otherwise stated.*

Wealth and Personal Banking

Wealth and Personal Banking ('WPB') offers a full range of competitive banking products and services for all Canadians to help them manage their finances, buy their homes, and save and invest for the future. Our business also has a large suite of global investment products and other specialized services available to serve our clients' international needs.

HSBC Premier and Advance propositions are aimed at mass affluent and emerging affluent clients who value a relationship-based approach to banking. In addition, HSBC Private Client Services and Private Investment Counsel offer an exclusive service for high-net-worth clients. We also help our clients manage their small business accounts with HSBC Fusion.

These services are offered by a skilled and dedicated team through our national network of branches, and via telephone, online and mobile banking.

Products and services

We accept deposits and provide transactional banking services to enable clients to manage their day-to-day finances and save. We offer credit facilities to assist clients with their borrowing requirements, and we provide wealth advisory and investment services to help them manage, protect and grow their wealth.

Review of financial performance[1]

Summary income statement

	Year ended	
	31 Dec 2023	31 Dec 2022
	$m	$m
Net interest income	**800**	709
Non-interest income	**314**	301
Total operating income	**1,114**	1,010
Change in expected credit losses - (charge)	**(39)**	(33)
Net operating income	**1,075**	977
Total operating expenses	**(711)**	(663)
Profit before income tax expense	**364**	314

Overview

WPB delivered record[2] operating income and profit before income tax expense in 2023, surpassing the highest results previously reported in 2022.

We achieved record[2] operating income of $1.1bn, a $104m or 10% increase compared to prior year. The increase was driven by improved margins as a result of the central bank rate increases over the year, growth in average deposit balances and higher income from our online brokerage business, partly offset by changes in deposit mix and lower treasury-related income.

We had record[2] profit before income tax expense for the year. increasing by $50m or 16% due to higher operating income, partly offset by higher operating expenses and higher expected credit losses.

Financial performance by income and expense item

Net interest income increased by $91m or 13% primarily due to improved margins and higher average deposit balances, partly offset by changes in deposit mix and lower treasury-related income.

Non-interest income increased by $13m or 4.3% mainly due to higher income from our online brokerage business, higher treasury-related income and increased credit cards activity. These increases were partly offset by lower fees from average investment funds under management and higher interbank clearing fee expense.

Change in expected credit losses resulted in charge of $39m for the year, due to the impact of rising interest rates on the mortgage portfolio. In 2022, the charge was a result of the adverse movement in forward-looking macro-economic variables, at that time, partly offset by releases in the first quarter of 2022 in performing loans from COVID-19 related allowances.

Total operating expenses increased by $48m or 7.2% mainly due to higher expenses relating to the agreed sale of HSBC Bank Canada and higher staff-related costs.

1. *For the year ended 31 December 2023 compared with the same period in the prior year, unless otherwise stated.*
2. *Record year since inception of WPB (previously RBWM) as a single global business in 2011.*

Global Banking

Global Banking ('GB') provides tailored financial services and products to major government, corporate and institutional clients worldwide. Our product specialists deliver a comprehensive range of transaction banking, financing, advisory, capital markets and risk management services. Our products, combined with our expertise across industries, enable us to help clients achieve their sustainability goals.

Products and services

GB takes a long-term relationship management approach, building a full understanding of clients' financial requirements and strategic goals. Client coverage is centralized in GB, under relationship managers who work with clients to understand their needs and provide holistic solutions by bringing together our broad array of products and extensive global network.

Our client coverage and product teams are supported by a unique client relationship management platform and a comprehensive client planning process. Our teams use these platforms to better serve global clients and help connect them to international growth opportunities.

GB provides wholesale capital markets and transaction banking services through the following product verticals:

- *Capital Financing and Advisory:* provides clients with expertise ranging from primary equity and debt capital markets, specialized leveraged financing solutions as well as transformative solutions such as asset finance, leveraged and acquisition finance, merger and acquisition advisory and execution.
- *Investment Banking Coverage:* provides clients with a single integrated financing business, focused across a client's capital structure including relationship-based credit and lending and structured financing solutions.
- *Global Payments Solutions ('GPS'):* helps clients move, control, access and invest their cash through a global network strategically located where most of the world's payments and capital flows originate. Products include non-retail deposit taking and international, regional and domestic payments and cash management services. In addition, our digital platforms enable clients to make seamless payments between countries and currencies.
- *Global Trade and Receivables Finance ('GTRF'):* we provide services and financing for buyers and suppliers throughout the trade cycle, helping them to use working capital efficiently, manage trade risk and fund their supply chains.

Review of financial performance[1]

Summary income statement

	Year ended	
	31 Dec 2023	31 Dec 2022
	$m	$m
Net interest income	**143**	160
Non-interest income	**63**	63
Total operating income	**206**	223
Change in expected credit losses - release/ (charge)	**9**	(4)
Net operating income	**215**	219
Total operating expenses	**(82)**	(88)
Profit before income tax expense	**133**	131

Overview

Total operating income decreased by $17m or 7.6% mainly due to higher cost of liabilities from rising interest rates and change in deposit mix decreasing net interest income and lower revenues from capital markets reflecting, in part, slower client activity levels and challenging market conditions. These decreases were partly offset by strong results from transaction banking activities, due mainly to higher spreads. Trading income also increased compared to prior year's adverse movement in the value of a loan syndication facility.

Profit before income tax increased by $2m or 1.5% mainly resulting from a favourable change in expected credit losses and lower operating expenses, partly offset by lower operating income.

Financial performance by income and expense item

Net interest income decreased by $17m or 11% primarily due to higher cost of liabilities due to rising interest rates and change in deposit mix partly offset by improvements related to central bank rate increases over the year.

Non-interest income remained flat. Trading income increased due to prior year's adverse movement in the value of a loan syndication facility. This was offset by lower capital markets revenues and a decrease in credit facility fees from lower originations driven by the challenging market conditions.

Change in expected credit losses resulted in a favourable change of $13m mainly due to a stage 3 recovery in the first quarter of 2023 and releases reflective of marginal improvements in our performing loan portfolio.

Total operating expenses decreased by $6m or 6.8% as we prudently managed costs and decreased our investment spend in 2023.

1. *For the year ended 31 December 2023 compared with the same period in the prior year, unless otherwise stated.*

Markets and Securities Services

Markets and Securities Services ('MSS') provides tailored financial services and products to major government, corporate and institutional clients worldwide. Our knowledge and expertise of local and international markets coupled with our global reach enables us to provide comprehensive and bespoke services across various asset classes, which can be combined and customized to meet clients' specific objectives.

Products and services

MSS takes a long-term relationship management approach to build a full understanding of clients' financial requirements and strategic goals and provide wholesale capital markets and transaction banking services through the following businesses.

- *Credit and Rates:* sells, trades and distributes fixed income securities to clients including corporates, financial institutions, sovereigns, agencies and public sector issuers. We assist clients in managing risk via interest rate derivatives and facilitate client facing financing activities.
- *Foreign Exchange:* provides spot and derivative products to institutional investors and corporate clients. We utilize our extensive global footprint to help our clients meet their investment and execution requirements.
- *Securities Financing:* provides institutional clients with financing solutions from repurchase agreements, bond forwards, collateral upgrades/downgrades and bespoke structured financing arrangements.

Review of financial performance[1]

Summary income statement

	Year ended	
	31 Dec 2023	31 Dec 2022
	$m	$m
Net interest income	**41**	49
Non-interest income	**38**	55
Total operating income	**79**	104
Total operating expenses	**(50)**	(51)
Profit before income tax expense	**29**	53

Overview

Total operating income decreased by $25m or 24% compared to the prior year. The decrease was driven mainly by fixed income trading and net interest income.

Profit before income tax decreased by $24m or 45% mainly due to lower operating income.

Financial performance by income and expense item

Net interest income decreased by $8m or 16% primarily as a result of compression on asset spreads due to the rising interest rate environment.

Non-interest income decreased by $17m or 31% driven mainly from fixed income trading.

Total operating expenses decreased by $1m or 2% as we prudently managed costs.

1. *For the year ended 31 December 2023 compared with the same period in the prior year, unless otherwise stated.*

Corporate Centre

Corporate Centre contains other transactions which do not directly relate to our businesses.

Review of financial performance[1, 2]

Summary income statement[2]

	Year ended	
	31 Dec 2023	31 Dec 2022
	$m	$m
Net interest income	**(10)**	4
Non-interest income	**30**	10
Net operating income	**20**	14
Total operating expenses	**(182)**	(145)
Profit/(loss) before income tax expense	**(162)**	(131)

Overview

Profit before income tax decreased by $31m for the year. This was mainly due to increased costs relating to the agreed sale of HSBC Bank Canada which includes the re-assessment of the useful life of intangible assets. This was partly offset by lower investment spend in 2023 and higher non-interest income.

1. *For the year ended 31 December 2023 compared with the same period in the prior year, unless otherwise stated.*
2. *Corporate Centre is not an operating segment of the bank. The numbers included above provide a reconciliation between operating segments and the entity results.*

Summary quarterly performance

Summary consolidated income statement

	Quarter ended							
	2023				2022			
	Dec 31	**Sep 30**	**Jun 30**	**Mar 31**	Dec 31	Sep 30	Jun 30	Mar 31
	$m	**$m**	**$m**	**$m**	$m	$m	$m	$m
Net interest income	**399**	**428**	**442**	**452**	479	449	369	337
Net fee income	**183**	**187**	**194**	**189**	192	194	196	197
Net income from financial instruments held for trading	**45**	**37**	**40**	**27**	33	15	24	27
Other items of income	**9**	**8**	**5**	**9**	10	7	10	9
Total operating income	**636**	**660**	**681**	**677**	714	665	599	570
Change in expected credit losses and other credit impairment charges - (charge)/release	**(22)**	**(26)**	**(13)**	**(2)**	(28)	(42)	(82)	42
Net operating income	**614**	**634**	**668**	**675**	686	623	517	612
Total operating expenses	**(386)**	**(352)**	**(366)**	**(366)**	(394)	(325)	(319)	(320)
Profit before income tax expense	**228**	**282**	**302**	**309**	292	298	198	292
Income tax expense	**(44)**	**(79)**	**(84)**	**(86)**	(78)	(79)	(53)	(78)
Profit for the period	**184**	**203**	**218**	**223**	214	219	145	214
Profit attributable to:								
– common shareholder	**163**	**184**	**198**	**205**	199	206	133	203
– preferred shareholder	**21**	**19**	**20**	**18**	15	13	12	11
Basic and diluted earnings per common share ($)	**0.30**	**0.33**	**0.37**	**0.37**	0.36	0.38	0.24	0.37

Comments on trends over the past eight quarters

In 2022, the quarterly increases in net interest income were mainly due to improvements in net interest margin from improved spread resulting from reduced volume of interest bearing liabilities and growth in lending. With continued strong balance sheet growth, the quarterly increases in 2022 also benefited from the central bank rate increases in the year. The quarterly decreases in 2023 were mainly driven by higher cost of liabilities due to rising interest rates and change in deposit mix, partly offset by increased asset yields.

Net fee income is comprised of income from several sources that can fluctuate from quarter to quarter and are impacted by business activity, number of days in the quarter and seasonality. From the first quarter of 2022, there was an underlying trend of growth in credit facilities fees related to higher volumes of bankers' acceptances, and increased activity in credit cards. However, this was partly offset by uncertain market conditions and inherent timing of transactions which impacts event-driven activities which resulted in an underlying nominal decrease in underwriting and advisory fees. As market conditions adversely shifted in 2022, fee income from investment funds under management decreased. In 2023, we continue to see an underlying trend related to increased activity in credit cards, increasing net fee income. This was partly offset by a trending decrease in credit facilities fees from fewer originations in our Global Banking business driven by the continued challenging market conditions.

Net income from financial instruments held for trading is, by its nature, subject to fluctuations from quarter to quarter. The decrease in the second quarter of 2022 was a result of an adverse movement in the value of a syndicated loan facility. The decrease in the third quarter of 2022 was mainly a result of an unfavourable change in hedge ineffectiveness, while the decrease in the first quarter of 2023 was mainly a result of market volatility. Over the quarters in 2023, we have seen a trending increase in trading income from rates trading activity and net interest income from trading activities as a result of the higher interest rate environment.

Other items of income include gains and losses from the sale of financial investments, which can fluctuate quarterly due to underlying balance sheet management activities.

Expected credit losses was a charge for the last three quarters of 2023 driven by new charges in non-performing loans and the impact of rising interest rates on the mortgage portfolio, partly offset by a release in performing loans due to a relative improvement in forward-looking macro-economic variables. From the third quarter of 2022 to the first quarter of 2023, expected credit losses resulted in a charge primarily driven by the continued unfavourable movement in forward-looking macro-economic variables in performing loans. The charge in the second quarter of 2022 was primarily driven by a significant charge for a stage 3 loan that was written-off. The release in the first quarter of 2022 was primarily driven by a release in performing loans from COVID-19 related allowances, supported by a relative improvement in macro-economic variables in four of the scenarios used to estimate expected credit losses. This was partly offset by a charge reflecting the effects of a mild deterioration attributable to a new scenario capturing the projected impact of the Russia-Ukraine war and inflationary pressures on the forward economic outlook.

We continued to prudently manage our costs in response to the current economic environment. The increase in operating expenses in the fourth quarter of 2022 was mainly due to the re-assessment of the useful life and impairment of intangible assets as a consequence of the agreed sale of HSBC Bank Canada.

With the exception of the second quarter of 2022 when we realized a significant charge in expected credit losses, profit before income tax expense had been improving from the first quarter of 2022. In the first quarter of 2023, we recorded our highest profit before tax. The decrease in the third and fourth quarters of 2023 was a result of lower operating income and higher charges in expected credit losses.

Economic review and outlook

The predictions and forecasts in this section are based on information and assumptions from sources we consider reliable. If this information or these assumptions are not accurate, actual economic outcomes may differ materially from the outlook presented in this section.

Economic momentum continues to cool

Economic momentum has slowed following a surprisingly strong start to 2023. The slowdown is highlighted by a gross domestic product ('GDP') contraction of 1.1% quarter-over-quarter annualized in the third quarter, amid mounting evidence that past interest rate increases are weighing on economic activity. The Bank of Canada's ('BoC') policy rate is currently 5.0%, having increased by 475 basis points ('bp') since March 2022.

Despite the headwind from higher interest rates, we do not foresee either a technical recession (two consecutive quarters of negative GDP growth), or a real recession (a prolonged, and widespread decline in economic activity). In part, this is because the fall in GDP in the third quarter was largely the result of an unexpectedly large fall in petroleum product exports. In fact, domestic demand rose at an annualized rate of 1.3%. Nonetheless, highlighting that underlying economic activity has slowed consumption, spending was essentially flat in both the second and third quarter. In the fourth quarter, we expect a small expansion in GDP growth with exports rebounding, while domestic demand growth cools to 0.5%, as consumption spending remains essentially stalled. In fact, there might have been more economic momentum in the fourth quarter than we expect. Statistics Canada's monthly industry-level GDP report posted a stronger than expected gain of 0.2% in November, with a preliminary estimate that GDP rose by 0.3% month-over-month in December.

For all of 2023, we forecasted GDP growth of 1.1%, down from 3.8% in 2022. With the limited economic momentum in the second half of 2023, and interest rates remaining elevated to start the year, we look for GDP growth of just 0.5% in 2024. With the BoC expected to initiate a rate cutting cycle starting around mid-year, economic activity is expected to improve during the second half of 2024. This will help lift GDP growth to 1.8% in 2025.

Inflation remains too high

As economic momentum slowed in response to higher interest rates, energy prices declined, earlier supply chain disruptions eased - and inflation has declined. From a peak of 8.1% year-over-year in June 2022, inflation had dropped to 3.4% in December 2023. However, as it remains above the top of the BoC's target band of 1% to 3%, inflation is still too high.

Supply chain disruptions and interest rates have been interrelated key factors in the rise and subsequent decline in inflation, as can be illustrated by the prices for household appliances. As the economy recovered from the pandemic, interest rates were at very low levels. This boosted the housing market and the demand for housing-related goods such as appliances. However, significant pandemic-related supply chain disruptions curtailed the supply of appliances. As a result, household appliance price inflation peaked at 12.0% year-over-year in April 2022. Since mid-2022, supply chain disruptions eased while higher interest rates crimped the housing market, putting downward pressure on appliance prices. As of December 2023, appliance prices were down 0.6% year-over-year.

While headline inflation had declined, short-term core inflation momentum has proved sticky. After dropping to 2.4% in November, the 3-month annualized rate of change of core consumer price index ('CPI') rose to 3.6% in December, back into the 3.5% to 4.0% range it has been in since mid-2022. With core inflation at 3.7% year-over-year in December, underlying inflation pressures remain elevated despite the slowdown in economic growth and the decline in the headline inflation rate.

As well, too many prices are still rising too quickly. For example, over 34% of CPI items are rising at a year-over-year rate of more than 5%, while 60% of items are rising at a more than 3% annual rate. These readings are far higher than what would be observed when inflation is close to 2%.

Hence, even though inflation has fallen from its mid-2022 peak, and inflation pressures are easing, it is not yet clear that inflation is on a path all the way toward the 2% level. Therefore, we think that the BoC will be wary of prematurely declaring mission accomplished.

The next BoC move will be a cut, but not soon

Nonetheless, we look for the next move by the BoC to be a rate cut. The first 25bp reduction is expected in June, reducing the policy rate to 4.75%.

Before initiating an easing cycle, the Governing Council has indicated that it wants greater assurance that inflation is on a clear path to 2%. In particular, the Governing Council needs to see further signs of dissipating underlying inflation pressures, notably the BoC has indicated that it wants to see short-term core inflation begin to head lower on a sustained basis.

In addition, the BoC has pointed to other key conditions it needs to observe before a policy pivot, including inflation expectations that are falling toward 2% and a further easing of labour market conditions.

Once the easing cycle begins, we look for a total of 100bp in rate cuts in 2024, reducing the policy to 4.0% at the end of the year. With progress on the rate of inflation falling toward 2%, and economic conditions becoming more consistent with sustained 2% inflation, we look for an additional 100bp of rate cuts in 2025, reducing the policy rate to 3.0%.

Labour market easing, but still tight

As economic growth has slowed, there are indications that the labour market is easing. The most notable sign of easing is that the unemployment rate has increased to 5.8% at the end of 2023, up from 5.0% in April. As well, the number of job vacancies has declined from over one million in May 2022 to 633,370 in October 2023. This is notable because the number of job vacancies are getting closer to pre-pandemic levels which is a sign that labour market conditions are returning to normal.

However, there are also clear indications that the labour market remains tight. Most notably, wage growth remains elevated. In December, average hourly wages posted an annual gain of 5.4%, up from 4.8% in November. While wage growth looks to drop back below 5.0% year-over-year in coming months, shorter term wage momentum remains elevated. For example, average hourly wages rose by an average 0.5% month-over-month during the second half, compared to a monthly average of below 0.4% in the first half of 2023. The BoC has said that annual wage growth of between 4% and 5% is not consistent with 2% inflation. Thus, the resilience in wage growth is a factor likely to make the BoC reluctant to cut the policy rate in early 2024.

Population growth remains strong

The unemployment rate is rising even though employment growth remains positive. This is the result of the population surge. Canada's population increased by 1.25 million in 2023 — a rate of growth of 3.2% year-over-year, and the fastest annual rate of growth since the late 1950's. This growth was due to a strong inflow of non-residents, some of which can be attributed to net immigration, or an increase in the number of permanent residents. However, almost two-thirds of the population increase was due to non-permanent residents (temporary foreign workers, international students, and refugees).

The population increase is affecting the labour market. Statistics Canada has estimated that employment needs to increase by about 50,000 per month in order to keep the employment rate constant. The employment rate is the ratio of employment to the population 15 years of age and over. For reference, between 2017 and 2019, a period of more moderate net international migration, employment was required to rise by 25,000 per month to hold the employment rate constant.

Since April, employment has increased by an average of just 22,800. As a result, the overall employment rate has declined from 62.4% to 61.6%. Hence, the demand for workers is no longer keeping up with the rising supply of potential new workers. This implies that slack in the labour market is developing without firms reducing payrolls.

Population growth and housing

The population surge, particularly the rise in the non-permanent resident category, is exacerbating tightness in the housing market, most notably in the rental market given the very limited increase in rental units over the past two decades. CPI rent rose at an annual pace of 7.4% in November, the fastest pace of rent increases since the early 1980's.

Higher interest rates are also exacerbating affordability issues, making it very difficult for some renters to shift to homeownership. The BoC's housing affordability index, which represents the share of disposable income that would go to housing-related expenses, rose above 55% in the third quarter, a 40-year high. Hence, some potential homeowners remain renters, even as the increase in the non-resident population creates a surge in demand for already limited rental units.

Financial concerns weigh on consumer confidence

Households are feeling the squeeze of rising prices and higher interest rates. BoC Governor, Tiff Macklem, suggested in year-end interviews that these factors help explain why consumer confidence is near pandemic lows. This is important because consumer confidence deteriorated even though the job market remained historically strong. Typically, a strong job market would suggest a high level of consumer confidence. This is not the case at present which highlights a vulnerability in the household sector to financial strains.

Signs of financial strain are mounting, such as the number of consumer insolvency proposals hitting a record high, as more people seek assistance to deal with their financial obligations. As well, the household debt service ratio rose to 15.2% of disposable income in the third quarter, a record high.

That said, households, overall, are still keeping up with mortgage payments with the mortgage delinquency rate still very low at 0.16% as of August 2023, only slightly above the record low reading of 0.14% in late 2022. A key factor in the rise in the mortgage delinquency rate is the rise in the unemployment rate.

The modest increase in mortgage delinquencies, in our view, is due to flexibility by lenders to borrowers facing higher mortgage interest rates at renewal, and because the job market has remained strong with elevated income growth even as economic momentum slowed. As a result, though there are pockets of financial strain in the household sector, many households are able to manage those strains and absorb the impact of higher prices and interest rates. Thus, consumer spending growth has slowed, but it has not collapsed.

Our forecast is for a slower job market, but for employment growth to remain positive. Hence, household financial risks are expected to remain manageable, even as more mortgages come up for renewal at higher rates in coming quarters.

One of the most notable risks to the economic outlook is a sharp deterioration in the job market. That is, should firms find that they need to trim payrolls to control costs amid a squeeze on profits, signs of financial stress would likely increase sharply.

Regulatory developments

Like all Canadian financial institutions, we face an increasing pace of regulatory change. The following is a summary of some key regulatory changes with the potential to impact our results or operations:

Office of the Superintendent of Financial Institutions ('OSFI')

In March, OSFI published the final version of Guideline B-15, Climate Risk Management, which includes two guidelines: governance and risk management, and climate-related financial disclosures. As a small and medium sized deposit-taking institution ('SMSB'), the bank will be expected to report under these guidelines for the fiscal year ending 2025. Greenhouse ('GHG') emissions will be reported on from the fiscal year ending 2026. We continue to monitor and prepare to follow these rapidly evolving developments of climate change regulations, frameworks and guidance that apply to us.

In the second quarter, the bank implemented the Basel III reforms according to the final Capital Adequacy Requirements ('CAR') Guideline and Leverage Requirements ('LR') Guideline issued by OSFI, apart from the chapters related to market risk and credit valuation adjustment ('CVA') which will take effect in the first quarter of 2024. The resultant rise in risk-weighted assets ('RWA') accompanied by an increase in capital floor adjustment is a reflection of the following notable changes in the revised CAR Guideline:

- For internal ratings based ('IRB') portfolios, removal of a 6% scaling factor from IRB RWA.
- Implementation of a revised wholesale exposure at default ('EAD') model leading to lower IRB RWA on average.
- For the capital floor based on RWA calculated using the standardized approach ('SA'), an inclusion for the first time, a revised operational risk RWA based on a framework driven by income and historical losses.
- The revised SA is more risk sensitive, in particular, for wholesale exposures secured by real estate collateral and loans granted for land acquisition; and the development and construction ('ADC') can be assigned a risk weight as high as 150%.
- Reduction of the capital floor factor from 70% to 65%, requiring a phase-in to 72.5% by 2026 with an annual increment of 2.5%.

The revisions to the existing Pillar 3 disclosure effective in the second quarter has incorporated the above changes.

In May 2023, OSFI launched a review of the liquidity treatment provided in the Liquidity Adequacy Requirements ('LAR') Guideline for wholesale funding sources with retail-like characteristics, such as high-interest savings account exchange traded funds ('HISA ETFs'). The purpose of this review is to assess the need for new wholesale funding categories to appropriately reflect the risks of such retail-like wholesale products.

In June 2023, OSFI along with the Bank of Canada ('BoC') and the Canada Deposit Insurance Corporation ('CDIC') published the draft Climate Risk Returns for Federally Regulated Financial Institutions ('FRFIs') for industry consultation. Upon finalization, the returns will collect climate-related emissions and exposure data directly from FRFIs, which will enable OSFI to carry out evidence-based policy development, regulation, and prudential supervision as it pertains to climate risk management.

Also in June 2023, OSFI published Guideline B-13 - Technology and Cyber Risk Management which describes OSFI's expectations for reporting technology and cyber security incidents that affect federally regulated private pension plans ('FRPPs'). B-13 became effective on 1 January 2024.

In September 2023, OSFI published an update in relation to its broader mandate. As next steps, OSFI will engage and hold initial discussions with stakeholders. As such, in October 2023, OSFI published for consultation a draft Integrity and Security Guideline which includes further clarity for financial institutions. OSFI also issued a revised draft Guideline E-21, Operational Resilience and Operational Risk Management which sets expectations to strengthen federally regulated financial institutions' ('FRFIs') ability to prepare and recover from operational risks, integrity and security. In addition, OSFI published a draft Standardized Climate Scenario Exercise ('SCSE') methodology which aims to increase FRFIs' understanding of their potential exposures to climate-related risks to build their capacity in conducting climate scenario analysis and risk assessments.

Also in September 2023, OSFI published a commercial real estate ('CRE') regulatory notice. It reinforces federally regulated financial institution expectations so that sound risk management of commercial real estate lending is maintained in a vulnerable environment. The interim regulatory guidance responds to the heightened risk environment by reinforcing and clarifying expectations regarding sound risk management of CRE lending, including governance, underwriting, account management, and portfolio management.

In October 2023, OSFI published the CAR 2024 guideline and revised Basel Capital Adequacy Reporting ('BCAR') instructions, which take effect fiscal first quarter of 2024. The revised CAR guideline builds on the CAR 2023 and reflects adjustments and clarifications that had been previously communicated via the frequently asked questions – Basel III reforms ('FAQs').

Also in October 2023, OSFI announced that, high-interest savings account exchange-traded funds ('HISA ETFs') will remain subject to a 100% liquidity requirement.

In November 2023, OSFI published for consultation the revised E-23: Model Risk Management Guideline, which adopts a flexible and principles-based approach, enabling federally regulated financial institutions and pension plans to tailor model risk management policies, procedures and processes to their size and complexity. The final guideline is set to take effect on 1 July 2025.

Also in November 2023, OSFI published the final Internal Capital Adequacy Assessment Process ('ICAAP') data return template and accompanying instructions. The first filings are expected by 31 March 2024, using 2023 fiscal year-end data for Small and Medium-Sized Deposit-Taking Institutions.

Consumer Protection

In February 2023, the Financial Consumer Agency of Canada ('FCAC') issued a bulletin entitled: Access to basic banking services: opening a retail deposit account (the 'Bulletin'). The Bulletin clarifies the proper application of the obligation to open a retail deposit account under section 627.17(1) of the Bank Act in circumstances when a Bank is presented with identification documentation that is non-standard. FCAC expects Banks to actively support consumers to gain access to banking services by exercising the flexibility that the Bank Act affords.

In July 2023, the Financial Consumer Agency of Canada ('FCAC') published the final Guideline on existing consumer mortgage loans in exceptional circumstances. The Guideline sets out FCAC's expectations for FRFIs to support consumers who are vulnerable to mortgage delinquency as a result of exceptional circumstances, such as the combined effects of high household indebtedness, the rapid increases in interest rates and the increased costs of living.

Markets and Securities

In February 2023, the Canadian Securities Administrators ('CSA') published a notice to help ensure that market participants are aware of certain developments and transition issues regarding the upcoming cessation of the Canadian Dollar Offered Rate ('CDOR') and the expected related cessation of the issuance of Bankers' Acceptances ('BAs').

Canada Federal Government

Criminal Code

In December 2023, the Government of Canada issued for consultation the Criminal Interest Rate Regulations, which are looking to exempt certain types of loans that would not lead to predatory lending practices from the criminal interest rate. The proposed Regulations would come into force three months after registration to allow lenders to adjust their operations, IT systems, signage, and marketing to align with the requirements.

Proceeds of Crime (Money Laundering) and Terrorist Financing Act ('PCMLTFA')

The PCMLTFA was amended, among other things, to require persons or entities referred to in section 5 of that Act to report to the Financial Transactions and Reports Analysis Centre of Canada information that is related to a disclosure made under the Special Economic Measures Act or the Justice for Victims of Corrupt Foreign Officials Act (Sergei Magnitsky Law).

Critical estimates and judgments*

The preparation of financial information requires the use of estimates and judgments about future conditions.

In view of the inherent uncertainties and the high level of subjectivity involved in the recognition or measurement of items discussed below, it is possible that the outcomes in the next financial year could differ from those on which management's estimates are based, resulting in materially different conclusions from those reached by management for the purposes of the 2023 consolidated financial statements. Management's selection of the bank's accounting policies which contain critical estimates and judgments are discussed below; it reflects the materiality of the items to which the policies are applied and the high degree of judgment and estimation uncertainty involved.

During 2023 the bank performed an updated assessment to determine if any adjustments to carrying values were required resulting from the announced sale agreement between HSBC Group and RBC which is expected to close on 28 March 2024, subject to customary closing conditions. There is limited impact on judgments and estimates used in the preparation of the financial statements as at 31 December 2023 and 2022. For the year ended 31 December 2023, the reassessment primarily relates to the ongoing accelerated amortization of the useful lives of intangibles. Further details can be found in note 18. No incremental provisions or adjustments to carrying values or pension obligations are required as at 31 December 2023.

Expected credit loss

The bank's accounting policy for determining expected credit loss ('ECL') is described in note 2. Determining ECL is complex, it relies on the use of models, a large volume of data and interrelated inputs and assumptions. The most significant judgments relate to defining what is considered to be a significant increase in credit risk which drives the movement between the stages, determining the lifetime and point of initial recognition of revolving facilities and in making assumptions and estimates to incorporate relevant information about past events, current conditions and forecasts of economic conditions. A high degree of uncertainty is involved in making

estimations using assumptions, which are highly subjective and very sensitive to the risk factors.

The probability of default ('PD'), loss given default ('LGD'), and exposure at default ('EAD') models which support these determinations are reviewed regularly in light of differences between loss estimates and actual loss experience. Judgment is required in selecting and calibrating the PD, LGD, and EAD models, which support the calculations, including making reasonable and supportable judgments about how models react to current and future economic conditions.

Additionally, judgment is required in selecting model inputs, assumptions, and economic forecasts, including determining whether sufficient and appropriately probability weighted forecasts are incorporated to calculate unbiased expected loss. Judgement is also required in making qualitative and quantitative management adjustments not already considered in model estimates to account for late breaking events, model and data limitations and deficiencies, and expert credit judgements.

The 'measurement uncertainty and sensitivity analysis of ECL estimates' section of this report sets out the assumptions used in determining ECL and provides an indication of different weightings being applied to different economic assumptions.

Valuation of financial instruments

The bank's accounting policy for determining the fair value of financial instruments is described in note 2. The best evidence of fair value is a quoted price in an actively traded principal market. In the event that the market for a financial instrument is not active, a valuation technique is used.

The majority of valuation techniques employ only observable market data. However, certain financial instruments are valued on the basis of valuation techniques that feature one or more significant market inputs that are unobservable, where the measurement of fair value is more judgmental. An instrument in its entirety is classified as valued using significant unobservable inputs if, in the opinion of management, a significant proportion of the instrument's inception profit or greater than 5% of the instrument's valuation is driven by unobservable inputs. 'Unobservable' in this context means that there is little or no current market data available from which to determine the price at which an arm's length transaction would be likely to occur. It generally does not mean that there is no data available at all upon which to base a determination of fair value (consensus pricing data may, for example, be used).

Income taxes and deferred tax assets

The bank's accounting policy for the recognition of income taxes and deferred tax assets is described in note 2. Tax laws are complex and can be subject to interpretation. Management applies its own judgment to the application and interpretation of tax laws, but the interpretation by the relevant tax authorities may differ. Tax liabilities are recognized based on best estimates of the probable outcome. If the final outcome is in favor of the decisions made by the relevant tax authorities, additional liabilities and expense in excess of the amounts recorded may result.

The recognition of a deferred tax asset relies on an assessment of the probability and sufficiency of future taxable profits, future reversals of existing taxable temporary differences and ongoing tax planning strategies. The most significant judgments relate to expected future profitability and to the applicability of tax planning strategies, including corporate reorganizations.

Defined benefit obligations

The bank's accounting policy for the recognition of defined benefit obligations is described in note 2. As part of employee compensation, the bank provides certain employees with pension and other post-retirement benefits under defined benefit plans which are closed to new entrants. In consultation with its actuaries, the bank makes certain assumptions in measuring its obligations under these defined benefit plans as presented in note 5.

The principal actuarial financial assumptions used in calculation of the bank's obligations under its defined plans are in respect of discount rate and rate of pay increase that form the basis for measuring future costs under the plans. The discount rates to be applied to its obligations are determined on the basis of the current and approximate average yield of high quality Canadian corporate bonds, with maturities consistent with those of the defined benefit obligations. Assumptions regarding future mortality are based on published mortality tables.

Intangible assets

The bank's accounting policy for the recognition, impairment, and amortization of intangible assets is described in note 2.

Judgement is required in determining whether there are events or changes in circumstances that indicate the carrying amount of the intangible asset may not be recoverable. The determination of the useful life over which to amortize intangible assets requires judgement of the expected period of time that economic benefits from the intangible asset is expected to be derived. Management makes these judgements taking into consideration all available facts and circumstances.

Provisions

The bank's accounting policy for the recognition of provisions is described in note 2. The recognition and measurement of provisions requires the bank to make a number of judgements, assumptions and estimates. The most significant judgements, assumptions and estimates relate to determining whether a present obligation exists and, if so, the amount of any provision.

Professional advice is taken on the assessment of litigation and similar obligations. Provisions for legal proceedings and regulatory matters typically require a higher degree of judgement than other types of provisions. When matters are at an early stage, accounting judgements can be difficult because of the high degree of uncertainty associated with determining whether a present obligation exists, and estimating the probability and amount of any outflows that may arise. As matters progress, management and legal advisers evaluate on an ongoing basis whether provisions should be recognized, revising previous estimates as appropriate. At more advanced stages, it is typically easier to make estimates around a better defined set of possible outcomes.

Provisions for legal proceedings and regulatory matters remain very sensitive to the assumptions used in the estimate. There could be a wide range of possible outcomes for any pending legal proceedings, investigations or inquiries. As a result, it is often not practicable to quantify a range of possible outcomes for individual matters. It is also not practicable to meaningfully quantify ranges of potential outcomes in aggregate for these types of provisions because of the diverse nature and circumstances of such matters and the wide range of uncertainties involved.

Changes in accounting policy during 2023

The bank has adopted the requirements of IFRS 17 'Insurance contracts' from 1 January 2023 which did not have a material impact on the consolidated financial statements of the bank. The bank has also adopted a number of interpretations and amendments to standards which have had an insignificant effect on these financial statements. Accounting policies have been consistently applied.

Future accounting developments

Minor amendments to IFRS Accounting Standards

The IASB has published a number of minor amendments to IFRS Accounting Standards which are effective from 1 January 2024 and 1 January 2025. We expect they will have an insignificant effect, when adopted, on our consolidated financial statements.

Off-balance sheet arrangements

As part of our banking operations, we enter into a number of off-balance sheet financial transactions that have a financial impact, but may not be recognized in our financial statements. These types of arrangements are contingent and may not necessarily, but in certain circumstances could, involve us incurring a liability in excess of amounts recorded in our consolidated balance sheet. These arrangements include guarantees and letters of credit.

Guarantees and letters of credit

We routinely issue financial and performance guarantees and documentary and commercial letters of credit on behalf of our customers to meet their banking needs. Guarantees are often provided on behalf of customers' contractual obligations, particularly providing credit facilities for customers' overseas trading transactions and in construction financings. Letters of credit are often used as part of the payment and documentation process in international trade arrangements.

Although guarantees and letters of credit are financial instruments, they are considered contingent obligations and the notional amounts are not included in our financial statements, as there are no actual advances of funds. Any payments actually made under these obligations are recorded as loans and advances to our customers. In accordance with accounting standards for financial instruments, we record the fair value of guarantees made on behalf of customers.

For credit risk management purposes, we consider guarantees and letters of credit to be part of our customers' credit facilities, which are subject to appropriate risk management procedures. Guarantees and letters of credit are considered to be part of our overall credit exposure, as set out in the analysis of our loan portfolio of the MD&A.

Further details on off-balance sheet arrangements can be found in note 26.

Financial instruments

Due to the nature of the bank's business, financial instruments compose a large proportion of our Balance Sheet, from which the bank can earn profits in trading, interest, and fee income. Financial instruments include, but are not limited to, cash, customer accounts, securities, loans, acceptances, hedging and trading derivatives, repurchase agreements, securitization liabilities and subordinated debt. We use financial instruments for both non-trading and trading activities. Non-trading activities include lending, investing, hedging and balance sheet management. Trading activities include the buying and selling of securities and dealing in derivatives and foreign exchange as part of facilitating client trades and providing liquidity and, to a lesser extent, market making activity.

Financial instruments are accounted for according to their classification and involves the use of judgment. A detailed description of the classification and measurements of financial instruments is included in note 2.

The use of financial instruments has the potential of exposing the bank to, or mitigating against, market, credit and/or liquidity risks. A detailed description of how the bank manages these risks can be found on page 23 of the MD&A.

Disclosure controls and procedures, and internal control over financial reporting

Disclosure controls and procedures are designed to provide reasonable assurance that all relevant information required to be disclosed in reports filed or submitted under Canadian securities laws is recorded, processed, summarized and reported within the time periods specified under those laws. These include controls and procedures that are designed to ensure that information is accumulated and communicated to management, including the Chief Executive Officer ('CEO') and the Chief Financial Officer ('CFO'), to allow timely decisions regarding required disclosure.

Internal control over financial reporting is designed to provide reasonable assurance that the financial reporting is reliable and that consolidated financial statements are prepared in accordance with IFRS Accounting Standards. Management is responsible for establishing and maintaining adequate internal control over financial reporting. These controls include those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the bank;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of the consolidated financial statements in accordance with IFRS Accounting Standards and that receipts and expenditures of the bank are being made only in accordance with authorizations of management; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the bank's assets that could have a material effect on the consolidated financial statements.

Because of the inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis. Furthermore, projections of any evaluation of the effectiveness of internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

During 2023, management has evaluated, with the participation of, or under the supervision of, the CEO and the CFO, the effectiveness of our disclosure controls and procedures and the design and effectiveness of the internal control over financial reporting as required by the Canadian securities regulatory authorities under National Instrument 52-109. The evaluation of internal control over financial reporting was performed using the framework and criteria established in the Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in May 2013. Based on these evaluations, management has concluded that the design and operation of these disclosure controls and procedures and internal control over financial reporting were effective as at 31 December 2023.

Changes in internal control over financial reporting

There were no changes in our internal control over financial reporting during the year ended 31 December 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Related party transactions

We enter into transactions with other HSBC affiliates, as part of the normal course of business, such as banking and operational services. In particular, as a member of one of the world's largest financial services organizations, we share in the expertise and economies of scale provided by the HSBC Group. We provide and receive services or enter into transactions with a number of HSBC Group companies, including sharing in the cost of development for technology platforms used around the world and benefit from worldwide contracts for advertising, marketing research, training and other operational areas.

These related party transactions are on terms similar to those offered to non-related parties and are subject to formal approval procedures that have been approved by the bank's Conduct Review Committee. Further details can be found in note 28.

During 2023, a short-term loan facility from HSBC Hong Kong matured and was repaid.

On 18 September 2023, HSBC Global Services (Canada) Limited ('ServCo'), which is an indirect wholly-owned subsidiary of HSBC Holdings, transferred certain shared services to the bank. The transfer was not designed to deliver economic benefits from changes in business activities, but represents a rearrangement of the organization of business activities across legal entities under the common control of HSBC Holdings in its capacity as the ultimate shareholder. The transfer of people and other supporting assets has no significant impact on the overall financial results, position or operations of the bank.

The consideration paid to ServCo as part of the transaction was $2m. The combination of the net liabilities assumed and the consideration paid is recognized in equity as a deemed dividend of $4m to the ultimate shareholder.

As a wholly-owned subsidiary, all of our common shares and preferred shares are indirectly held by HSBC Holdings.

Risk

	Page
Our approach to risk	23
Our risk appetite	23
Risk management	24
Key developments in 2023	26
Our material banking risks	27
Credit risk	28
Treasury risk	44
Market risk	51
Climate risk	52
Resilience risk	53
Regulatory compliance risk	54
Financial crime risk	54
Model risk	55
Factors that may affect future results	55

Our approach to risk

Our risk appetite

We recognize the importance of a strong culture, which refers to our shared attitudes, beliefs, values and standards that shape behaviours related to risk awareness, risk taking and risk management. All our people are responsible for the management of risk, with the ultimate accountability residing with the Board.

We seek to build our business for the long term by balancing social, environmental and economic considerations in the decisions we make. Our strategic priorities are underpinned by our endeavour to operate in a sustainable way. This helps us to carry out our social responsibility and manage the risk profile of the business. We are committed to managing and mitigating climate-related risks, both physical and transition risks, and continue to incorporate consideration of these into how we manage and oversee risks internally and with our customers.

The following principles guide the bank's overarching appetite for risk and determine how our businesses and risks are managed.

Financial position

- We aim to maintain a strong capital position, defined by regulatory and internal capital ratios.
- We carry out liquidity and funding management on an entity basis.

Operating model

- We seek to generate returns in line with our risk appetite and strong risk management capability.
- We aim to deliver sustainable earnings and consistent returns for our shareholder.

Business practice

- We consider and where appropriate, mitigate reputational risk which may arise from our business activities and decisions.
- We have no appetite for deliberately or knowingly causing detriment to consumers, or incurring a breach of the letter or spirit of regulatory requirements.
- We have no appetite for inappropriate market conduct by a member of staff or by any business.
- We are committed to managing the climate risks that have an impact on our financial position, and delivering on our net zero ambition.

- We monitor non-financial risk exposure against risk appetite, including exposure related to inadequate or failed internal processes, people and systems, or events that impact our customers or can lead to sub-optimal returns to shareholders, censure, or reputational damage.

Enterprise-wide application

Our risk appetite encapsulates consideration of financial and non-financial risks. We define financial risk as the risk of a financial loss as a result of business activities. We actively take these types of risks to maximize shareholder value and profits. Non-financial risk is defined as the risk to achieving our strategy or objectives as the result of inadequate or failed internal processes, people and systems or from external events.

The Board reviews and approves the bank's risk appetite twice a year to make sure it remains fit for purpose. The risk appetite is considered, developed and enhanced through:

- an alignment with our strategy, purpose, values and customer needs;
- trends highlighted in other risk reports;
- communication with risk stewards on the developing risk landscape;
- strength of our capital, liquidity and balance sheet;
- compliance with applicable laws and regulations;
- effectiveness of the applicable control environment to mitigate risk, informed by risk ratings from risk control assessments;
- functionality, capacity and resilience of available systems to manage risk; and
- the level of available staff with the required competencies to manage risks.

We formally articulate our risk appetite through our risk appetite statement ('RAS'). Setting out our risk appetite ensures that we agree a suitable level of risk for our strategy. In this way, risk appetite informs our financial planning process and helps senior management to allocate capital to business activities, services and products.

The RAS consists of qualitative statements and quantitative metrics, covering financial and non-financial risks. It is applied to the development of business line strategies, strategic and business planning and remuneration. Performance against the RAS is reported to the bank's Risk Management Meeting ('RMM') alongside key risk indicators to support targeted insight and discussion on breaches of risk appetite and associated mitigating actions. This reporting allows risks to be promptly identified and mitigated, and informs risk-adjusted remuneration to drive a strong risk culture.

Risk management

We recognize that the primary role of risk management is to protect our customers, business, colleagues, shareholder and the communities that we serve, while ensuring we are able to support our strategy and provide sustainable growth. This is supported by our three lines of defence model described on page 25.

The implementation of our business strategy, which includes regulatory and transformation programs, remains a key focus. As we implement change initiatives, we actively manage the execution risks. We also perform periodic risk assessments, including against strategies, to help ensure retention of key personnel for our continued safe operation.

We aim to use a comprehensive risk management approach across the organization and across all risk types, underpinned by our culture and values. This is outlined in our risk management framework, including the key principles and practices that we employ in managing material risks, both financial and non-financial. The framework fosters continual monitoring, promotes risk awareness and encourages a sound operational and strategic decision making and escalation process. It also supports a consistent approach to identifying, assessing, managing and reporting the risks we accept and incur in our activities, with clear accountabilities. We actively review and enhance our risk management framework and our approach to managing risk, through our activities with regard to: people and capabilities; governance; reporting and management information; credit risk management models; and data. Risk and Compliance are independent from the lines of business, including our sales and trading functions, to provide challenge, oversight and appropriate balance in risk/reward decisions.

Our risk management framework

The following diagram and descriptions summarize key aspects of the risk management framework, including governance, structure, risk management tools and our culture, which together help align employee behaviour with risk appetite.

Key components of our risk management framework

HSBC values and risk culture		
Risk governance	**Non-executive risk governance**	The Board approves the bank's risk appetite, plans and performance targets. It sets the tone from the top and is advised by the Audit, Risk and Conduct Review Committee ('ARC') of the Board.
	Executive risk governance	Our executive risk governance structure is responsible for the enterprise-wide management of all risks, including key policies and frameworks for the management of risk.
Roles and responsibilities	**Three lines of defence model**	Our 'three lines of defence model' defines roles and responsibilities for risk management. An independent Risk function helps ensure the necessary balance in risk/return decisions.
Processes and tools	**Risk appetite**	The bank has processes to identify/assess, monitor, manage and report risks to ensure we remain within our risk appetite.
	Enterprise-wide risk management tools	
	Active risk management: identification/assessment, monitoring, management and reporting	
Internal controls	**Policies and procedures**	Policies and procedures define the minimum requirements for the controls required to manage our risks.
	Control activities	Operational and resilience risk management defines minimum standards and processes for managing operational risks and internal controls.
	Systems and infrastructure	The bank has systems and/or processes that support the identification, capture and exchange of information to support risk management activities.

Risk Governance

The Board has ultimate responsibility for the effective management of risk and approves our risk appetite. It is advised on risk-related matters by the Audit, Risk and Conduct Review Committee ('ARC').

The Chief Risk Officer, supported by the RMM holds executive accountability for the ongoing monitoring, assessment and management of the risk environment and the effectiveness of the risk management framework.

The Chief Risk Officer is responsible for oversight of reputational risk and is supported by Reputational Risk and Client Selection Committees ('RRCSC') for each line of business. The RRCSCs consider matters arising from customers, transactions and third parties that either present a serious potential reputational risk to the bank or merit an entity-led decision to ensure a consistent risk management approach throughout the bank.

Day-to-day responsibility for risk management is delegated to senior managers with individual accountability for decision making. All our people have a role to play in risk management.

We use a defined executive risk governance structure to help ensure appropriate oversight and accountability of risk, which facilitates reporting and escalation to the RMM. This structure is summarized in the following table.

Governance structure for the management of risk

Authority	Membership	Responsibilities include:
Risk Management Meeting	Chief Risk Officer Chief Executive Officer Chief Finance Officer Chief Operating Officer Chief Compliance Officer Head of Human Resources Head of Communications General Counsel Heads of the four business segments All other members of the bank's Executive Committee.	• Supporting the Chief Risk Officer in exercising Board-delegated risk management authority • Overseeing the implementation of risk appetite and the risk management framework • Forward-looking assessment of the risk environment, analyzing possible risk impacts and taking appropriate action • Monitoring all categories of risk and determining appropriate mitigating action • Promoting a supportive culture in relation to risk management and conduct

Our responsibilities

All our people are responsible for identifying and managing risk within the scope of their roles. Roles are defined using the three lines of defence model, which takes into account our business and functional structures as described below.

Three lines of defence

To create a robust control environment to manage risks, we use an activity-based three lines of defence model. This model delineates management accountabilities and responsibilities for risk management and the control environment.

The model underpins our approach to risk management by clarifying responsibility and encouraging collaboration, as well as enabling efficient coordination of risk and control activities. The three lines of defence are summarized below:

- The first line of defence owns the risks and is responsible for identifying, recording, reporting and managing them in line with risk appetite, and ensuring that the right controls and assessments are in place to mitigate them.
- The second line of defence challenges the first line of defence on effective risk management, and provides advice and guidance in relation to the risk.
- The third line of defence is our Internal Audit function, which provides independent assurance as to whether our risk management approach and processes are designed and operating effectively.

Risk function

Our Risk function, headed by the Chief Risk Officer, is responsible for the bank's risk management framework. This responsibility includes establishing policy, monitoring risk profiles, and forward-looking risk identification and management. The Risk function is made up of sub-functions covering all risks to our operations. It forms part of the second line of defence and is independent from the businesses, including sales and trading functions, to provide challenge, appropriate oversight and balance in risk/return decisions.

Responsibility for minimizing both financial and non-financial risk lies with our people. They are required to manage the risks of the business and operational activities for which they are responsible. We maintain adequate oversight of our risks through our various specialist Risk Stewards, along with our aggregate overview through the Chief Risk Officer.

We have continued to strengthen the control environment and our approach to the management of non-financial risk, as set out in our risk management framework. The management of non-financial risk focuses on governance and risk appetite, and provides a single view of the non-financial risks that matter the most along with the associated controls. It incorporates a risk management system designed to enable the active management of non-financial risk. Our ongoing focus is on simplifying our approach to non-financial risk management, while driving more effective oversight and better end-to-end identification and management of non-financial risks. This is overseen by the Operational and Resilience Risk function, headed by the Head of Operational and Resilience Risk.

Stress testing and recovery planning

We operate a wide-ranging stress testing program as a key part of our risk management and capital and liquidity planning. Stress testing provides management with key insights into the impact of severely adverse events on the bank, and provides confidence to regulators on the bank's financial stability.

Our stress testing program assesses our capital and liquidity strength through a rigorous examination of our resilience to external shocks. As well as undertaking regulatory-driven stress tests, we conduct our own internal stress tests, in order to understand the nature and level of all material risks, quantify the impact and develop plausible business-as-usual mitigating actions.

Internal stress tests

Our internal capital assessment uses a range of stress scenarios that explore risks identified by management. They include potential adverse macroeconomic, geopolitical and operational risk events, as well as other potential events specific to HSBC.

The selection of stress scenarios is based upon the output of our identified top and emerging risks identified and our risk appetite. Stress testing analysis helps management understand the nature and extent of vulnerabilities to which the bank is exposed. Using this information, management decides whether risks can or should be mitigated through management actions, or, if they were to crystallize, should be absorbed through capital and liquidity. This in turn informs decisions about preferred capital and liquidity levels and allocations.

Recovery and resolution plans

Recovery and resolution plans form part of the integral framework safeguarding of the bank's financial stability. Together with stress testing, it helps us understand the likely outcomes of adverse business or economic conditions and the identification of mitigating actions.

Key developments in 2023

We continued to actively manage the risks related to macroeconomic and geopolitical uncertainties, as well as other key risks described in this section. In addition, we sought to enhance our risk management in the following areas:

- We enhanced our management of concentration risk at country and single customer group levels by implementing new frameworks to strengthen our control of risk appetite.
- We enhanced our regulatory management ecosystem, deploying new tools and capabilities following the global launch of an enhanced regulation mapping tool.
- We have continued to strengthen the way third-party risk is overseen and managed across all non-financial risks. Our processes, framework and reporting capabilities have been enhanced to improve the control and oversight of our material third parties, to help maintain requirements of our operational resilience and meet new and evolving regulatory requirements.
- Through our climate risk program, we continued to embed climate considerations throughout the organization, including through risk policy updates and the completion of an annual climate risk materiality assessment. We have developed risk metrics to monitor and manage exposures, and further enhanced our internal climate scenario analysis.
- We implemented reporting and governance in response to the agreed sale of HSBC Bank Canada to RBC to ensure execution risks were appropriately managed.

In November 2022, HSBC Group announced the agreed sale of HSBC Bank Canada to RBC. On 21 December 2023, the Federal Minister of Finance approved the proposed acquisition, allowing the sale to proceed. We expect the sale to close on 28 March 2024, subject to customary closing conditions. Risks related to the ongoing management of HSBC Bank Canada will rely on our established risk management programs and processes. As well, there are inherent acquisition risks where the timings could be subject to change depending on the extent of progress achieved on preparatory activities that may affect the close date. The transition period to effectively migrate HSBC Bank Canada's customers, data, systems, processes and people to RBC will be managed through a migration program. For further details of this agreed sale, refer to 'Our strategy' on page 5.

Our material banking risks

The material risk types associated with our banking operations are described in the following tables:

Description of risks - banking operations

Risks	Arising from	Measurement, monitoring and management of risk
Credit risk (see page 28)		
Credit risk is the risk of financial loss if a customer or counterparty fails to meet an obligation under a contract.	Credit risk arises principally from direct lending, trade finance and leasing business, but also from certain other products such as guarantees and derivatives.	Credit risk is: • measured as the amount that could be lost if a customer or counterparty fails to make repayments; • monitored using various internal risk management measures and within limits approved by individuals within a framework of delegated authorities; and • managed through a robust risk control framework which outlines clear and consistent policies, principles and guidance for risk managers.
Treasury risk (see page 44)		
Treasury risk is the risk of having insufficient capital, liquidity or funding resources to meet financial obligations and satisfy regulatory requirements, including the risk of adverse impact on earnings or capital due to structural foreign exchange exposures and changes in market interest rates, together with pension risk.	Treasury risk arises from changes to the respective resources and risk profiles driven by customer behaviours, management decisions, or the external environment.	Treasury risk is: • measured through risk appetite and more granular limits, set to provide an early warning of increasing risk, minimum ratios of relevant regulatory metrics, and metrics to monitor the key risk drivers impacting treasury resources; • monitored and projected against appetites and by using operating plans based on strategic objectives together with stress and scenario testing; and • managed through control of resources in conjunction with risk profiles, strategic objectives and cash flows.
Market risk (see page 51)		
Market risk is the risk of an adverse financial impact on trading activities arising from changes in market parameters such as interest rates, foreign exchange rates, asset prices, volatilities, correlations and credit spreads.	Exposure to market risk is separated into two portfolios: trading portfolios and non-trading portfolios.	Market risk is: • measured using sensitivities, Value at Risk ('VaR') and stress testing, giving a detailed picture of potential gains and losses for a range of market movements and scenarios, as well as tail risks over specified time horizons; • monitored using Value at Risk, stress testing and other measures; and • managed using risk limits reviewed by the RMM and the business risk forums.
Climate risk (see page 52)		
Climate risk relates to the financial and non-financial impacts that may arise because of climate change and the move to a lower carbon economy.	Climate risk can materialize through: • physical risk, which arises from the increased frequency and severity of weather events; • transition risk, which arises from the process of moving to a low carbon economy; • net zero alignment risk which arises from HSBC failing to meet its net zero commitments or to meet external expectations related to net zero, because of inadequate ambition and/or plans, poor execution, or inability to adapt to changes in the external environment; and • the risk of greenwashing, which arises from the act of knowingly or unknowingly making inaccurate, unclear, misleading or unsubstantiated claims regarding sustainability to our stakeholders.	Climate risk is: • measured using a variety of risk appetite metrics and key management indicators, which assess the impact of climate risk across the risk taxonomy; • monitored using stress testing; and • managed through the adherence to risk appetite thresholds and via specific policies.
Resilience risk (see page 53)		
Resilience risk is the risk of sustained and significant business disruption from execution, delivery, physical security or safety events, causing the inability to provide critical services to our customers, affiliates, and counterparties.	Resilience risk arises from failures or inadequacies in processes, people, systems or external events.	Resilience risk is: • measured through a range of metrics with defined maximum acceptable impact tolerances and against our agreed risk appetite; • monitored through oversight of enterprise processes, risks, controls and strategic change programs; and • managed by continuous monitoring and thematic reviews.

Description of risks - banking operations (continued)

Risks	Arising from	Measurement, monitoring and management of risk
Regulatory compliance risk (see page 54)		
Regulatory compliance risk is the risk associated with breaching our duty to clients and other counterparties, inappropriate market conduct, and breaching related financial services regulatory standards.	Regulatory compliance risk arises from the failure to observe relevant laws, codes, rules and regulations and can manifest itself in poor market or customer outcomes and lead to fines, penalties and reputational damage to our business.	Regulatory compliance risk is: • measured by reference to risk appetite, identified metrics, incident assessments, regulatory feedback and the judgment of and assessment by our regulatory compliance teams; • monitored against the first line of defence risk and control assessments, the results of the monitoring and control assurance activities of the second line of defence functions, and the results of internal and external audits and regulatory inspections; and • managed by establishing and communicating appropriate policies and procedures, training employees in them, and monitoring activity to help ensure their observance. Proactive risk control and/or remediation work is undertaken where required.
Financial crime risk (see page 54)		
Financial crime risk is the risk that HSBC's products and services will be exploited for criminal activity. This includes fraud, bribery and corruption, tax evasion, sanctions and export control violations, money laundering, terrorist financing and proliferation financing.	Financial crime risk arises from day-to-day banking operations involving customers, third parties and employees.	Financial crime risk is: • measured by reference to risk appetite, identified metrics, incident assessments, regulatory feedback and the judgment of and assessment by our compliance teams; • monitored against the first line of defence risk and control assessments, the results of monitoring and control assurance activities of the second line of defence functions, and the results of internal and external audits and regulatory inspections; and • managed by establishing and communicating appropriate policies and procedures, training employees in them, and monitoring activity to help ensure their observance. Proactive risk control and/or remediation work is undertaken where required.
Model risk (see page 55)		
Model risk is the risk of inappropriate or incorrect business decisions arising from the use of models that have been inadequately designed, implemented or used or that model does not perform in line with expectations and predictions.	Model risk arises in both financial and non-financial context whenever business decision making includes reliance on models.	Model risk is: • measured by reference to model performance tracking and the output of detailed technical reviews, with key metrics including model review statuses and findings; • monitored against model risk appetite statements, insight from the independent review function, feedback from internal and external audits, and regulatory reviews; and • managed by creating and communicating appropriate policies, procedures and guidance, training colleagues in their application, and supervising their adoption to ensure operational effectiveness.

Credit Risk

	Page
Overview	28
Credit risk management	28
Summary of credit risk	30
Credit exposure	32
Measurement uncertainty and sensitivity analysis of ECL estimates	33
Reconciliation of allowances for loans and advances to banks and customers including loan commitments and financial guarantees	36
Credit quality of financial instruments	36
Wholesale lending	38
Personal lending	40
Credit-impaired loans	43
Forborne loans	43
Collateral and other credit enhancements	43
Derivative portfolio	44

Overview

Credit risk is the risk of financial loss if a customer or counterparty fails to meet a payment obligation under a contract. Credit risk arises principally from direct lending, trade finance and the leasing business, but also from other products such as guarantees and credit derivatives.

Credit risk management

Key developments in 2023

There were no material changes to the policies and practices for the management of credit risk in 2023. We continued to apply the requirements of IFRS 9 'Financial Instruments' within the credit risk sub-function.

Governance and structure

We have established credit risk management and related IFRS 9 processes and we actively assess the impact of economic developments on specific customers, customer segments or portfolios. As credit conditions change, we take mitigating action, including the revision of risk appetites or limits and tenors, as appropriate. In addition, we continue to evaluate the terms under which we provide credit facilities within the context of individual customer requirements, the quality of the relationship, regulatory requirements, market practices and our market position.

Credit risk sub-function*

Credit risk is managed in accordance with the bank's credit policy, which is established in consultation with HSBC Group and the key elements are approved by the Audit, Risk and Conduct Review Committee. Risk limits and credit authorities are delegated to senior credit management staff. Credit exposures in excess of certain levels or other specific risk attributes are referred for concurrence to HSBC Group to ensure they remain within HSBC Group's global risk limits.

The principal objectives of our credit risk management framework are:

- to maintain a strong culture of responsible lending, and robust risk policies and control frameworks;
- to partner and challenge our businesses in defining, implementing and continually re-evaluating our risk appetite under actual and scenario conditions; and
- to ensure there is independent, expert scrutiny of credit risks, their costs and their mitigation.

Key risk management processes

IFRS 9 'Financial Instruments' process

The IFRS 9 process comprises three main areas: modelling and data, implementation and governance.

Modelling and data

We have established modelling and data processes which are subject to appropriate governance and independent review.

Implementation

A centralized impairment engine performs the expected credit loss ('ECL') calculation using data, which is subject to a number of validation checks and enhancements, from a number of systems in the bank including client, finance and risk systems. Where possible, these checks and processes are performed in a consistent and centralized manner.

Governance

A series of management review forums has been established in order to review and approve the impairment results. The management review forums have representatives from Risk and Finance.

Concentration of exposure*

Concentrations of credit risk arise when a number of counterparties or exposures have comparable economic characteristics, or such counterparties are engaged in similar activities or operate in the same geographical areas or industry sectors so that their collective ability to meet contractual obligations is uniformly affected by changes in economic, political or other conditions. We use a number of controls and measures to minimize undue concentration of exposure in our portfolios across industries and businesses. These include portfolio and counterparty limits, approval and review controls, and stress testing.

Credit quality of financial instruments*

Our risk rating system facilitates the internal ratings-based approach under the Basel framework adopted by the bank to support the calculation of our minimum credit regulatory capital requirement.

The five credit quality classifications each encompasses a range of granular internal credit rating grades assigned to the wholesale and personal lending businesses, and the external ratings attributed by external agencies to debt securities.

For debt securities and certain other financial instruments, external ratings have been aligned to the five quality classifications based upon the mapping of related customer risk rating ('CRR') to external credit rating.

Wholesale lending

The CRR 10-grade scale summarizes a more granular underlying 23-grade scale of obligor probability of default ('PD'). All corporate customers are rated using the 10- or 23-grade scale, depending on the degree of sophistication of the Basel approach adopted for the exposure.

Each CRR band is associated with an external rating grade by reference to long-run default rates for that grade, represented by the average of issuer-weighted historical default rates. This mapping between internal and external ratings is indicative and may vary over time.

Personal lending

Personal lending credit quality is based on a 12-month point-in-time ('PIT') probability-weighted probability of default ('PD').

Credit quality classification

	Debt securities and other bills	Wholesale lending		Personal lending	
	External credit rating	Internal credit rating	12-month Basel probability of default %	Internal credit rating	12-month Basel probability-weighted PD %
Quality classification					
Strong	**A– and above**	**CRR 1 to CRR 2**	**0.000 - 0.169**	**Band 1 and 2**	**0.000 - 0.500**
Good	**BBB+ to BBB-**	**CRR 3**	**0.170 - 0.740**	**Band 3**	**0.501 - 1.500**
Satisfactory	**BB+ to B and unrated**	**CRR 4 to CRR 5**	**0.741 - 4.914**	**Band 4 and 5**	**1.501 - 20.000**
Sub-standard	**B- to C**	**CRR 6 to CRR 8**	**4.915 - 99.999**	**Band 6**	**20.001 - 99.999**
Credit-impaired	**Default**	**CRR 9 to CRR 10**	**100.000**	**Band 7**	**100.000**

Quality classification definitions

'Strong' exposures demonstrate a strong capacity to meet financial commitments, with negligible or low probability of default and/or low levels of expected loss.

'Good' exposures require closer monitoring and demonstrate a good capacity to meet financial commitments, with low default risk.

'Satisfactory' exposures require closer monitoring and demonstrate an average-to-fair capacity to meet financial commitments, with moderate default risk.

'Sub-standard' exposures require varying degrees of special attention and default risk is of greater concern.

'Credit-impaired' exposures have been assessed as impaired, as described on note 2(i) on the Consolidated Financial Statements.

Forborne loans and advances*

Forbearance measures consist of concessions towards an obligor that is experiencing or about to experience difficulties in meeting its financial commitments ('financial difficulties').

We continue to class loans as forborne when we modify the contractual payment terms due to having significant concerns about the borrowers' ability to meet contractual payments when they are due. Our definition of forborne captures non-payment related concessions, such as covenant waivers.

Loans where a customer has had a trigger rate where the payment rate for the borrower has not been reset due to temporary relief are considered Stage 2, and are assessed against forbearance criteria. Those considered forborne remain in Stage 2 if considered performing forborne loans, or are assigned to Stage 3 if considered non-performing forborne loans.

However, in instances where a customer has made a payment adjustment in response to a trigger rate which does not fully maintain the original amortization term, the loan is not classified as forborne unless other forborne criteria are met. These loans are not considered Stage 2, unless they also meet other risk-based criteria.

Judgment is applied in interpreting the nature of the forborne criteria when classifying Personal or Wholesale loans as forborne.

Credit quality of forborne loans

For wholesale lending, where payment-related forbearance measures result in a diminished financial obligation, or if there are other indicators of impairment, the loan will be classified as credit impaired if it is not already so classified. For retail lending, where a material payment-related concession has been granted, the loan will be classified as credit impaired. In isolation, non-payment forbearance measures may not result in the loan being classified as

credit impaired unless combined with other indicators of credit impairment. These are classified as performing forborne loans for both wholesale and retail lending.

Wholesale and retail lending forborne loans are classified as credit impaired until there is sufficient evidence to demonstrate a significant reduction in the risk of non-payment of future cash flows, observed over a minimum one-year period, and there are no other indicators of impairment. Any forborne loans not considered credit impaired will remain forborne for a minimum of two years from the date that credit impairment no longer applies. For wholesale and retail lending, any forbearance measures granted on a loan already classified as forborne results in the customer being classed as credit impaired.

The amounts of forborne loans are disclosed in the 'Forborne loans' section on page 43.

Forborne loans and recognition of expected credit losses*

Expected credit loss assessments for forborne loans reflect the higher rates of losses, such as typically experienced with loans that are in stage 2 and stage 3. The higher rates are more pronounced in unsecured retail lending requiring further segmentation. For wholesale lending, forborne loans are typically assessed individually. Credit risk ratings are intrinsic to the impairment assessments. The individual impairment assessment takes into account the higher risk of the future non-payment inherent in forborne loans.

Impairment assessment*

For details of our impairment policies on loans and advances and financial investments, see note 2(i) on the financial statements.

Write-off of loans and advances*

For details of our policy on the write-off of loans and advances, see note 2(i) on the financial statements.

Unsecured personal lending facilities, including credit cards, are generally written off when payments are between 150 and 210 days past due. The standard period runs until the end of the month in which the account becomes 180 days contractually delinquent. Write-off periods may be extended, generally to no more than 360 days past due. In exceptional circumstances, they may be extended further.

For secured facilities, write-off occurs upon repossession of collateral, receipt of proceeds via settlement or determination that recovery of the collateral will not be pursued.

Any secured assets maintained on the balance sheet beyond 60 months of consecutive delinquency driven default require additional monitoring and review to assess the prospect of recovery.

In the event of bankruptcy or analogous proceedings, write-off may occur earlier than the maximum periods stated above. Collection procedures may continue after write-off.

Summary of credit risk

The following disclosure presents the gross carrying/nominal amount of financial instruments to which the impairment requirements in IFRS 9 are applied and the associated allowance for ECL.

The allowance for ECL at 31 December 2023 comprised of $319m in respect of assets held at amortized cost and $27m in respect of loans and other credit related commitments and financial guarantees.

Summary of financial instruments to which the impairment requirements in IFRS 9 are applied*

	Footnotes	31 December 2023		31 December 2022	
		Gross carrying/ nominal amount	**Allowance for ECL**	Gross carrying/ nominal amount	Allowance for ECL
		$m	**$m**	$m	$m
Loans and advances to customers at amortized cost		**74,384**	**(291)**	75,180	(318)
– personal		**35,735**	**(125)**	36,127	(102)
– corporate and commercial		**38,649**	**(166)**	39,053	(216)
Loans and advances to banks at amortized cost		**393**	**—**	344	—
Other financial assets measured at amortized cost		**25,133**	**(28)**	26,783	(26)
– cash and balances at central banks		**7,089**	**—**	6,326	—
– items in the course of collection from other banks		**12**	**—**	9	—
– reverse repurchase agreements - non-trading		**3,595**	**—**	6,003	—
– financial investments		**10,058**	**—**	8,361	—
– customers' liability under acceptances		**2,599**	**(4)**	3,155	(8)
– other assets, prepayments and accrued income	1	**1,780**	**(24)**	2,929	(18)
Total gross carrying amount on-balance sheet		**99,910**	**(319)**	102,307	(344)
Loans and other credit related commitments		**48,059**	**(26)**	46,978	(30)
– personal		**8,908**	**(1)**	8,797	(1)
– corporate and commercial		**39,151**	**(25)**	38,181	(29)
Financial guarantees	2	**1,689**	**(1)**	1,725	(2)
– personal		**7**	**—**	7	—
– corporate and commercial		**1,682**	**(1)**	1,718	(2)
Total nominal amount off-balance sheet	3	**49,748**	**(27)**	48,703	(32)

		Fair value	**Allowance for ECL**	Fair value	Allowance for ECL
		$m	**$m**	$m	$m
Debt instruments measured at fair value through other comprehensive income ('FVOCI')	4	**12,352**	**—**	15,024	(1)

1. *Includes only those financial instruments which are subject to the impairment requirements of IFRS 9. 'Other assets' and 'Prepayments and accrued income' as presented within the consolidated balance sheet includes both financial and non-financial assets.*
2. *Excludes performance guarantee contracts.*
3. *Represents the maximum amount at risk should the contracts be fully drawn upon and clients default.*
4. *Debt instruments measured at FVOCI continue to be measured at fair value with the allowance for ECL as a memorandum item. Change in ECL is recognized in 'Change in expected credit losses and other credit impairment charges' in the income statement.*

The following disclosure provides an overview of the bank's credit risk by stage and customer type, and the associated ECL coverage. The financial assets recorded in each stage have the following characteristics:

Stage 1: These financial assets are unimpaired and without significant increase in credit risk on which a 12-month allowance for ECL is recognized.

Stage 2: A significant increase in credit risk has been experienced on these financial assets since initial recognition on which a lifetime ECL is recognized.

Stage 3: There is objective evidence of impairment and the financial assets are therefore considered to be in default or otherwise credit-impaired on which a lifetime ECL is recognized.

Summary of credit risk (excluding debt instruments measured at FVOCI) by stage distribution and ECL coverage*

	Gross carrying/nominal amount[1]				Allowance for ECL				ECL coverage %			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
	$m	$m	$m	$m	$m	$m	$m	$m	%	%	%	%
Loans and advances to customers at amortized cost	**62,827**	**11,146**	**411**	**74,384**	**(53)**	**(148)**	**(90)**	**(291)**	**0.1**	**1.3**	**21.9**	**0.4**
– personal	**30,569**	**4,983**	**183**	**35,735**	**(10)**	**(94)**	**(21)**	**(125)**	**—**	**1.9**	**11.5**	**0.3**
– corporate and commercial	**32,258**	**6,163**	**228**	**38,649**	**(43)**	**(54)**	**(69)**	**(166)**	**0.1**	**0.9**	**30.3**	**0.4**
Loans and advances to banks at amortized cost	**393**	**—**	**—**	**393**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Other financial assets measured at amortized cost	**24,926**	**184**	**23**	**25,133**	**(3)**	**(2)**	**(23)**	**(28)**	**—**	**1.1**	**100.0**	**0.1**
Loan and other credit-related commitments	**44,198**	**3,755**	**106**	**48,059**	**(11)**	**(10)**	**(5)**	**(26)**	**—**	**0.3**	**4.7**	**0.1**
– personal	**8,719**	**149**	**40**	**8,908**	**(1)**	**—**	**—**	**(1)**	**—**	**—**	**—**	**—**
– corporate and commercial	**35,479**	**3,606**	**66**	**39,151**	**(10)**	**(10)**	**(5)**	**(25)**	**—**	**0.3**	**7.6**	**0.1**
Financial guarantees[2]	**1,587**	**81**	**21**	**1,689**	**(1)**	**—**	**—**	**(1)**	**0.1**	**—**	**—**	**0.1**
– personal	**7**	**—**	**—**	**7**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
– corporate and commercial	**1,580**	**81**	**21**	**1,682**	**(1)**	**—**	**—**	**(1)**	**0.1**	**—**	**—**	**0.1**
At 31 Dec 2023	**133,931**	**15,166**	**561**	**149,658**	**(68)**	**(160)**	**(118)**	**(346)**	**0.1**	**1.1**	**21.0**	**0.2**
Loans and advances to customers at amortized cost	60,549	14,254	377	75,180	(48)	(169)	(101)	(318)	0.1	1.2	26.8	0.4
– personal	33,367	2,628	132	36,127	(12)	(71)	(19)	(102)	—	2.7	14.4	0.3
– corporate and commercial	27,182	11,626	245	39,053	(36)	(98)	(82)	(216)	0.1	0.8	33.5	0.6
Loans and advances to banks at amortized cost	344	—	—	344	—	—	—	—	—	—	—	—
Other financial assets measured at amortized cost	26,205	561	17	26,783	(3)	(6)	(17)	(26)	—	1.1	100.0	0.1
Loan and other credit-related commitments	40,482	6,374	122	46,978	(10)	(20)	—	(30)	—	0.3	—	0.1
– personal	8,600	156	41	8,797	(1)	—	—	(1)	—	—	—	—
– corporate and commercial	31,882	6,218	81	38,181	(9)	(20)	—	(29)	—	0.3	—	0.1
Financial guarantees[2]	1,576	117	32	1,725	(1)	(1)	—	(2)	0.1	0.9	—	0.1
– personal	7	—	—	7	—	—	—	—	—	—	—	—
– corporate and commercial	1,569	117	32	1,718	(1)	(1)	—	(2)	0.1	0.9	—	0.1
At 31 Dec 2022	129,156	21,306	548	151,010	(62)	(196)	(118)	(376)	—	0.9	21.5	0.2

1. *Represents the maximum amount at risk should the contracts be fully drawn upon and clients default.*
2. *Excludes performance guarantee contracts.*

Credit exposure

Maximum exposure to credit risk*

This section provides information on balance sheet items, loan and other credit-related commitments and the associated offsetting arrangements.

Commentary on consolidated balance sheet movements in 2023 is provided on page 12.

'Maximum exposure to credit risk' table
The following table presents our maximum exposure before taking account of any collateral held or other credit enhancements (unless such enhancements meet accounting offsetting requirements). The table excludes financial instruments whose carrying amount best represents the net exposure to credit risk and it excludes equity securities as they are not subject to credit risk. For the financial assets recognized on the balance sheet, the maximum exposure to credit risk equals their carrying amount; for financial guarantees and similar contracts granted, it is the maximum amount that we would have to pay if the guarantees were called upon. For loan commitments and other credit-related commitments, it is generally the full amount of the committed facilities.
The offset in the table relates to amounts where there is a legally enforceable right of offset in the event of counterparty default and where, as a result, there is a net exposure for credit risk purposes. However, as there is no intention to settle these balances on a net basis under normal circumstances, they do not qualify for net presentation for accounting purposes. No offset has been applied to off-balance sheet collateral. In the case of derivatives, the offset column also includes collateral received in cash and other financial assets.

Other credit risk mitigants

While not disclosed as an offset in the following 'Maximum exposure to credit risk' table, other arrangements are in place which reduce our maximum exposure to credit risk. These include a charge over collateral on borrowers' specific assets such as residential properties, collateral held in the form of financial instruments that are not held on balance sheet and short positions in securities.

The collateral available to mitigate credit risk is disclosed in the 'Collateral and other credit enhancements' section on page 43.

Maximum exposure to credit risk*

	2023			2022		
	Maximum exposure	Offset	Net	Maximum exposure	Offset	Net
	$m	$m	$m	$m	$m	$m
Loans and advances to customers held at amortized cost	**74,093**	**(392)**	**73,701**	74,862	(258)	74,604
– personal	**35,610**	**–**	**35,610**	36,025	–	36,025
– corporate and commercial	**38,483**	**(392)**	**38,091**	38,837	(258)	38,579
Derivatives	**3,964**	**(4,078)**	**(114)**	6,220	(6,176)	44
On-balance sheet exposure to credit risk	**78,057**	**(4,470)**	**73,587**	81,082	(6,434)	74,648
Off-balance sheet exposure to credit risk	**54,127**	**–**	**54,127**	52,843	–	52,843
– financial guarantees and similar contracts	**6,094**	**–**	**6,094**	5,895	–	5,895
– loan and other credit-related commitments	**48,033**	**–**	**48,033**	46,948	–	46,948
At 31 Dec	**132,184**	**(4,470)**	**127,714**	133,925	(6,434)	127,491

Measurement uncertainty and sensitivity analysis of ECL estimates

Inflation, economic contraction and high interest rates, combined with an unstable geopolitical environment and the effects of global supply chain disruption, continued to result in elevated levels of uncertainty during the year.

As a result of this uncertainty, at 31 December 2023, management judgments and estimates continue to reflect a degree of caution both in the selection of economic scenarios and their weightings, and in the use of management judgmental adjustments, which reflect how economic conditions interact with modelled outcomes, and are described in more detail below.

The recognition and measurement of ECL involves the use of significant judgment and estimation. We form multiple economic scenarios based on economic forecasts, apply these assumptions to credit risk models to estimate future credit losses, and probability-weight the results to determine an unbiased ECL estimate. Management judgmental adjustments are used to address late-breaking events, data and model limitations, model deficiencies and expert credit judgments.

Methodology

In the fourth quarter, four economic scenarios have been used to capture the current economic environment and to articulate management's view of the range of potential outcomes.

Of the four standard scenarios, three are drawn from consensus-based scenarios: a Central that represents a baseline expectation; and two outer scenarios that reflect Upside and Downside deviations from the central view. The fourth scenario, Downside 2, represents management's view of severe downside risks.

Description of economic scenarios

The economic assumptions presented in this section have been formed by the bank, with reference to external forecasts specifically for the purpose of calculating ECL.

The Central scenario forecast remained broadly stable in the fourth quarter of 2023. The key exception was monetary policy, where expectations for interest rate cuts were brought forward. The outlook for 2024 continues to be for a period of below trend growth through the year, while inflation remains above the central bank targets.

At the end of 2023, risks to the economic outlook included a number of significant geopolitical risks. Within our downside scenarios, the economic consequences from the crystallization of those risks are captured in economic downturn and recession, higher commodity and goods prices, the re-acceleration of inflation and a further rise in monetary policy.

The four scenarios used for the purpose of calculating ECL at 31 December 2023 are summarized below:

- The consensus Central scenario: This scenario reflects expectations for a low growth and high interest rate environment where GDP growth is expected to be weaker in 2024, relative to 2023. The period of below trend GDP growth through 2024 is driven primarily by the lagged effects of higher interest rates and inflation. The pressure on real disposable income and higher financing costs squeezes household discretionary income, eats into business margins and causes a continued slowdown in the housing market. Growth only returns to its long-term expected trend in later years after inflation reverts back towards central bank targets in early 2025.
- The consensus Upside scenario: This scenario features stronger economic activity in the near term, before converging to long-run trend expectations. It incorporates a rapid fall in the rate of inflation that allows the central bank to reduce interest rates more quickly and an earlier turnaround in housing prices than incorporated in the Central scenario.
- The consensus Downside scenario: In the consensus Downside scenario, economic activity is weaker than compared with the Central scenario. In this scenario, GDP declines, unemployment rates rise and housing prices fall. The scenario features a rise in inflation, triggered by supply chain constraints and higher energy prices, caused by an escalation of geopolitical tensions. The scenario also features a temporary increase in interest rates before the effects of weaker consumption demand begin to dominate and commodity prices and inflation fall again.
- The Downside 2 scenario: features a deep global recession and reflects management's view of the tail of the economic distribution. It incorporates the crystallization of a number of risks simultaneously, including further escalation of global geopolitical crises, which creates severe supply chain disruptions to goods and energy markets. As inflation surges and the central bank tightens monetary policy further, consumer and business confidence evaporates. However, surging inflation is expected to prove short-lived in this scenario as a recession takes hold causing commodity prices to correct sharply and global price inflation to fall.

The following table discloses key macroeconomic variables and the probabilities assigned to the consensus economic scenarios as well as to the additional scenarios.

Macroeconomic projections[1, 2]

	Central scenario	Consensus Upside			Consensus Downside			Downside 2		
	Five-year average	Five-year average	Best outcome		Five-year average	Worst outcome		Five-year average	Worst outcome	
31 December 2023										
GDP growth (%)	**1.7**	**2.7**	**4.4**	**(1Q25)**	**0.9**	**(1.5)**	**(4Q24)**	**0.8**	**(4.6)**	**(4Q24)**
Unemployment rate (%)	**5.8**	**5.5**	**5.1**	**(4Q25)**	**6.3**	**7.4**	**(3Q24)**	**9.6**	**11.9**	**(1Q25)**
House Price Index (%)	**1.1**	**2.7**	**7.1**	**(4Q24)**	**(2.0)**	**(13.8)**	**(3Q24)**	**(4.0)**	**(36.1)**	**(4Q24)**
Brent oil prices (US$/barrel)	**74.0**	**70.0**	**79.7**	**(1Q24)**	**78.3**	**77.6**	**(4Q25)**	**72.2**	**58.2**	**(3Q25)**
Inflation rate	**2.2**	**2.0**	**1.1**	**(1Q25)**	**2.3**	**3.4**	**(2Q24)**	**1.5**	**5.4**	**(2Q24)**
Probability (%)	**75**	**10**			**10**			**5**		
31 December 2022										
GDP growth (%)	1.6	2.7	4.3	(3Q24)	0.3	(3.9)	(4Q23)	(0.2)	(5.9)	(4Q23)
Unemployment rate (%)	5.9	5.7	5.2	(3Q24)	6.5	7.6	(3Q23)	9.4	11.6	(2Q24)
House Price Index (%)	(1.1)	0.7	4.9	(2Q24)	(3.5)	(23.8)	(2Q23)	(6.0)	(36.3)	(4Q23)
Brent oil prices (US$/barrel)	77.2	70.7	85.7	(1Q23)	87.6	85.1	(4Q24)	67.2	54.1	(3Q24)
Inflation rate	2.4	2.2	1.0	(1Q24)	2.4	6.0	(1Q23)	2.2	6.5	(1Q23)
Probability (%)	70	5			15			10		

1. *Macroeconomic projections at 31 December 2023 are based on average 1Q2024-4Q2028 (31 December 2022: average 1Q2023-4Q2027).*
2. *The 'worst' or the 'best' outcome refers to the quarter that is either the trough or peak in the respective variable in the first two years of the scenario.*

Scenario probabilities

Scenario weights have changed from those applied at 31 December 2022. At 31 December 2023, the consensus Upside and Central scenarios had a combined weighting of 85% (31 December 2022: 75%) and the downside scenarios had a combined weighting of 15% (31 December 2022: 25%).

Critical estimates and judgments

The calculation of ECL under IFRS 9 involves significant judgments, assumptions and estimates at 31 December 2023. These include:

- the selection and weighting of economic scenarios, given rapidly changing economic conditions and a wide distribution of economic forecasts. There is judgment in making assumptions about the effects of inflation and interest, global growth, supply chain disruption; and
- estimating the economic effects of those scenarios on ECL, particularly as the historical relationship between macroeconomic variables and defaults might not reflect the dynamics of current macroeconomic conditions. Modelled assumptions and linkages between economic factors and credit losses may underestimate or overestimate ECL in these conditions, and there is significant uncertainty in the estimation of parameters such as collateral values and loss severity; and
- the identification of customers experiencing significant increases in credit risk and credit impairment, particularly where those customers have accepted payment deferrals and other reliefs, notably extended amortization, designed to address short-term liquidity issues given muted default experience to date. The use of segmentation techniques for indicators of significant increases in credit risk involves significant estimation uncertainty.

How economic scenarios are reflected in the wholesale lending calculation of ECL

The bank has developed a methodology for the application of forward economic guidance into the calculation of ECL by incorporating forward economic guidance into the estimation of the term structure of Probability of Default ('PD') and Loss Given Default ('LGD'). For PDs, we consider the correlation of forward economic guidance to default rates. For LGD calculations we consider the correlation of forward economic guidance to collateral values and realization rates. PDs and LGDs are estimated for the entire term structure of each instrument.

For impaired loans, LGD estimates take into account independent recovery valuations provided by external consultants where available, or internal forecasts corresponding to anticipated economic conditions and individual company conditions. In estimating the ECL on impaired loans that are individually considered not to be significant, the bank assesses a Central outcome scenario and the weighted multiple scenario impact is applied through extrapolation from the significant portfolio.

How economic scenarios are reflected in the personal lending calculation of ECL

The bank has developed a methodology for incorporating forecasts of economic conditions into ECL estimates. The impact of economic scenarios on PD is modelled at a portfolio level. Historic relationships between observed default rates and macro-economic variables are integrated into IFRS 9 ECL estimates by leveraging economic response models. The impact of these scenarios on PD is modelled over a period equal to the remaining maturity of underlying assets. The impact on LGD is modelled for mortgage portfolios by forecasting future loan-to-value ('LTV') profiles for the remaining maturity of the asset by using forecasts of the house price index and applying the corresponding LGD expectation.

Management judgmental adjustments

In the context of IFRS 9, management judgmental adjustments are short-term increases or decreases to the ECL at either a customer or portfolio level to account for late breaking events, model deficiencies and expert credit judgment applied following management review and challenge.

This includes refining model inputs and outputs and using adjustments to ECL based on management judgment and higher level quantitative analysis for impacts that are difficult to model.

At 31 December 2023, management judgements were applied to reflect credit risk dynamics not captured by our models. The drivers of management judgmental adjustments continue to evolve with the economic environment.

The current inflationary and interest rate environment increases the inherent difficulty in forecasting ECL, as the models are not directly designed to take account of a sudden and significant change in interest rates. In the near-term, the effects are more pronounced in Retail leading to adjustments which capture the effect of a higher cost of borrowing, regional variations in house price indexes, and related risks of defaults. The bank continues to work closely with its clients.

Where the macroeconomic and portfolio risk outlook is expected to improve, supported by low levels of observed default, adjustments initially taken to reflect increased risk expectations have been retired or reduced.

However, other adjustments have increased where portfolio risk outlook is not expected to improve or modelled outcomes are overly sensitive or where sector-specific risk is not adequately captured.

We have internal governance in place to monitor management judgmental adjustments regularly and, where possible, to reduce the reliance on these through model recalibration or redevelopment over time, as appropriate.

Management judgmental adjustments made in estimating the scenario-weighted reported ECL at 31 December 2023 are set out in the following table.

Management judgmental adjustments to ECL[1]

	Personal	Wholesale	Total
Expert credit and model adjustments	**41**	**28**	**69**
Adjustments for forward economic guidance	**43**	**–**	**43**
At 31 Dec 2023	**84**	**28**	**112**
Expert credit and model adjustments	16	35	51
Adjustments for forward economic guidance	42	–	42
At 31 Dec 2022	58	35	93

1. *Management judgmental adjustments presented in the table reflect increases to ECL.*

Where management identifies the potential need for ECL adjustments, management applies the ECL adjustments according to the stage distribution of the exposures. In addition, to the extent that the adjustments are driven by or attributable to changes in the assessment of credit risk, management's process incorporates consideration of the appropriate staging, either on an individual loan by loan level to the extent possible, or at industry segment levels where necessary.

When we apply these management judgmental adjustments, we assess whether a significant change in credit risk has occurred. In such instances on an individual or portfolio basis where a significant change in credit risk has been identified, we have migrated the related exposures between stages 1 and 2 based on whether the change is positive or negative from the model. The corresponding ECL adjustment is based on the stage distribution of the individual loan or portfolio segment with stage 1 exposures measured on a 12-month ECL and stage 2 exposures measured on a lifetime ECL basis.

Economic scenarios sensitivity analysis of ECL estimates

Management considered the sensitivity of the ECL outcome against the economic forecasts as part of the ECL governance process by recalculating the ECL under each scenario described above for selected portfolios, applying a 100% weighting to each scenario in turn. The weighting is reflected in both the determination of significant increase in credit risk as well as the measurement of the resulting ECL.

The ECL calculated for the Upside and Downside scenarios should not be taken to represent the upper and lower limits of possible actual ECL outcomes, and it is possible that actual outcomes could differ significantly from the scenarios outlined in the ECL sensitivities. The impact of defaults that might occur in the future under different economic scenarios is captured by recalculating ECL for loans in stages 1 and 2 at the balance sheet date. The population of stage 3 loans (in default) at the balance sheet date is unchanged in these sensitivity calculations. Stage 3 ECL would only be sensitive to changes in forecasts of future economic conditions if the loss given default of a particular portfolio was sensitive to these changes. The wholesale and retail sensitivity analysis for each scenario is stated inclusive of management judgmental adjustments, as appropriate.

For wholesale credit risk exposures, the sensitivity analysis excludes ECL and financial instruments related to defaulted obligors because the measurement of ECL is relatively more sensitive to credit factors specific to the obligor than future economic scenarios, and it is impracticable to separate the effect of macroeconomic factors in individual assessments.

For retail credit risk exposures, the sensitivity analysis includes ECL for loans and advances to customers related to defaulted obligors. This is because the retail ECL for secured mortgage portfolios including loans in all stages is sensitive to macroeconomic variables.

Wholesale portfolio analysis

The portfolios below were selected based on contribution to ECL and sensitivity to macro-economic factors.

IFRS 9 ECL sensitivity to future economic conditions[1]

ECL of financial instruments subject to significant measurement uncertainty at 31 December[2]

	2023	2022
	$m	$m
Reported ECL	**121**	171
Consensus central scenario	**102**	108
Consensus upside scenario	**75**	82
Consensus downside scenario	**145**	201
Downside 2 scenario	**660**	787
Gross carrying amount/nominal amount[3]	**114,175**	114,583

1. *Excludes ECL and financial instruments relating to defaulted obligors because the measurement of ECL is relatively more sensitive to credit factors specific to the obligor than future economic scenarios.*
2. *Includes off-balance sheet financial instruments that are subject to significant measurement uncertainty.*
3. *Includes low credit-risk financial instruments such as debt instruments at FVOCI, which have high carrying amounts but low ECL under all the above scenarios.*

Retail portfolio analysis

Small portfolios, which are non-modelled portfolios, are excluded from the sensitivity analysis.

IFRS 9 ECL sensitivity to future economic conditions[1]

ECL of loans and advances to customers at 31 December[2]

	2023	2022
	$m	$m
Reported ECL	**123**	96
Consensus central scenario	**121**	92
Consensus upside scenario	**115**	87
Consensus downside scenario	**132**	100
Downside 2 scenario	**194**	142
Gross carrying amount	**35,865**	36,429

1. *ECL sensitivities exclude portfolios utilizing less complex modelling approaches.*
2. *ECL sensitivity includes only on-balance sheet financial instruments to which IFRS 9 impairment requirements are applied.*

Reconciliation of allowances for loans and advances to banks and customers including loan commitments and financial guarantees

The following disclosure provides a reconciliation of the bank's allowances for loans and advances to banks and customers including loan commitments and financial guarantees.

The transfers of financial instruments represents the impact of stage transfers upon the gross carrying/nominal amount and associated allowance for ECL. The net remeasurement of ECL arising from stage transfers represents the change in ECL due to these transfers.

Reconciliation of allowances for loans and advances to banks and customers including loan commitments and financial guarantees*[1]

		2023				2022			
		Non-credit impaired		Credit-impaired		Non-credit impaired		Credit-impaired	
		Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
	Footnote	$m	$m	$m	$m	$m	$m	$m	$m
At 1 Jan		**59**	**190**	**101**	**350**	78	163	128	369
Transfers of financial instruments:	2	**131**	**(134)**	**3**	**—**	104	(126)	22	—
– transfers from stage 1 to stage 2		**(13)**	**13**	**—**	**—**	(19)	19	—	—
– transfers from stage 2 to stage 1		**142**	**(142)**	**—**	**—**	120	(120)	—	—
– transfers to stage 3		**—**	**(11)**	**11**	**—**	—	(30)	30	—
– transfers from stage 3		**2**	**6**	**(8)**	**—**	3	5	(8)	—
Net remeasurement of ECL arising from transfer of stage	2	**(48)**	**20**	**—**	**(28)**	(50)	28	—	(22)
New financial assets originated or purchased		**16**	**—**	**—**	**16**	20	—	—	20
Changes to risk parameters		**(89)**	**102**	**103**	**116**	(89)	144	93	148
Asset derecognized (including final repayments)		**(4)**	**(20)**	**(10)**	**(34)**	(4)	(20)	(2)	(26)
Assets written off		**—**	**—**	**(102)**	**(102)**	—	—	(142)	(142)
Foreign exchange		**—**	**—**	**—**	**—**	—	1	2	3
At 31 Dec		**65**	**158**	**95**	**318**	59	190	101	350
ECL income statement (release)/charge for the year		**(125)**	**102**	**93**	**70**	(123)	152	91	120
Recoveries		**—**	**—**	**(5)**	**(5)**	—	—	(6)	(6)
Total ECL income statement (release)/charge for the year		**(125)**	**102**	**88**	**65**	(123)	152	85	114

1. *Excludes performance guarantee contracts.*
2. *Transfers of financial instruments represent stage movements of prior period ECL allowances to the current period stage classification. Net remeasurement line represents the current period change in ECL allowances for transfers, without considering changes to credit or other risk parameters.*

	At	Year ended	At	Year ended
	31 December 2023	31 December 2023	31 December 2022	31 December 2022
	Allowance for ECL/ Other credit loss provisions	ECL charge/ (release)	Allowance for ECL/ Other credit loss provisions	ECL charge/(release)
	$m	$m	$m	$m
As above	**318**	**65**	350	114
Other financial assets measured at amortized cost	**28**	**(1)**	26	2
Performance guarantee contracts	**—**	**(1)**	1	(7)
Debt instruments measured at FVOCI	**—**	**—**	1	1
Total allowance for ECL / Total income statement ECL charge for the year	**346**	**63**	378	110

Credit quality of financial instruments*

We assess the credit quality of all financial instruments that are subject to credit risk. The credit quality of financial instruments is a point-in-time assessment of the probability of default ('PD') of financial instruments, whereas IFRS 9 stages 1 and 2 are determined based on relative deterioration of credit quality since initial recognition.

Accordingly, for non-credit impaired financial instruments there is no direct relationship between the credit quality assessment and IFRS 9 stages 1 and 2, though typically the lower credit quality bands exhibit a higher proportion in stage 2.

As the economic environment continues to be volatile, there is an increased estimation risk in estimating the stage migration and distribution of exposures. The recent inflationary and interest rate environment increases the inherent difficulty in forecasting change in credit risk and the potential for credit losses arising from lending activities. Where considered necessary, the bank supplements its ECL models with techniques to estimate staging adjustments and ECL allowances. Slight changes in forward looking economic data can have a pronounced impact on the stage distribution of loans. The five credit quality classifications, as defined in an earlier section, each encompasses a range of granular internal credit rating grades assigned to wholesale and personal lending businesses and the external ratings attributed by external agencies to debt securities.

The information on credit quality classifications is provided on page 29.

Distribution of financial instruments by credit quality and stage allocation*

	Gross carrying/notional amount						Allowance for ECL/ other credit loss provisions	Net
	Strong	Good	Satisfactory	Sub-standard	Credit-impaired	Total		
	$m	$m	$m	$m	$m	$m	$m	$m
In-scope for IFRS 9								
Debt instruments at fair value through other comprehensive income[1]	12,536	—	—	—	—	12,536	—	12,536
– stage 1	12,536	—	—	—	—	12,536	—	12,536
– stage 2	—	—	—	—	—	—	—	—
– stage 3	—	—	—	—	—	—	—	—
Loans and advances to customers at amortized cost	35,479	19,638	16,529	2,327	411	74,384	(291)	74,093
– stage 1	35,349	17,873	9,264	341	—	62,827	(53)	62,774
– stage 2	130	1,765	7,265	1,986	—	11,146	(148)	10,998
– stage 3	—	—	—	—	411	411	(90)	321
Loans and advances to banks at amortized cost	392	1	—	—	—	393	—	393
– stage 1	392	1	—	—	—	393	—	393
– stage 2	—	—	—	—	—	—	—	—
– stage 3	—	—	—	—	—	—	—	—
Other financial assets at amortized cost	22,417	1,675	966	52	23	25,133	(28)	25,105
– stage 1	22,417	1,668	836	5	—	24,926	(3)	24,923
– stage 2	—	7	130	47	—	184	(2)	182
– stage 3	—	—	—	—	23	23	(23)	—
Out-of-scope for IFRS 9								
Trading assets	3,200	53	—	—	—	3,253	—	3,253
Other financial assets mandatorily measured at fair value through profit or loss	20	—	—	—	—	20	—	20
Derivative assets	3,722	197	44	1	—	3,964	—	3,964
Total gross carrying amount on-balance sheet	77,766	21,564	17,539	2,380	434	119,683	(319)	119,364
Percentage of total credit quality	65.0 %	18.0 %	14.6 %	2.0 %	0.4 %	100.0 %		
Loan and other credit-related commitments	19,505	18,236	9,515	697	106	48,059	(26)	48,033
– stage 1	19,429	17,077	7,525	167	—	44,198	(11)	44,187
– stage 2	76	1,159	1,990	530	—	3,755	(10)	3,745
– stage 3	—	—	—	—	106	106	(5)	101
Financial guarantees	764	540	349	15	21	1,689	(1)	1,688
– stage 1	764	539	279	5	—	1,587	(1)	1,586
– stage 2	—	1	70	10	—	81	—	81
– stage 3	—	—	—	—	21	21	—	21
In-scope: Loan and other credit-related commitments and financial guarantees	20,269	18,776	9,864	712	127	49,748	(27)	49,721
Out-of-scope: Performance guarantee contracts	2,224	1,047	1,026	93	16	4,406	—	4,406
At 31 Dec 2023	100,259	41,387	28,429	3,185	577	173,837	(346)	173,491

1. *For the purposes of this disclosure, gross carrying value is defined as the amortized cost of a financial asset, before adjusting for any loss allowance. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the balance sheet as it excludes fair value gains and losses.*

Distribution of financial instruments by credit quality and stage allocation (continued)*

	Gross carrying/notional amount						Allowance for ECL/other credit loss provisions	Net
	Strong	Good	Satisfactory	Sub-standard	Credit-impaired	Total		
	$m	$m	$m	$m	$m	$m	$m	$m
In-scope for IFRS 9								
Debt instruments at fair value through other comprehensive income[1]	15,772	—	—	—	—	15,772	(1)	15,771
– stage 1	15,772	—	—	—	—	15,772	(1)	15,771
– stage 2	—	—	—	—	—	—	—	—
– stage 3	—	—	—	—	—	—	—	—
Loans and advances to customers at amortized cost	37,518	19,617	14,759	2,909	377	75,180	(318)	74,862
– stage 1	37,468	15,385	7,550	146	—	60,549	(48)	60,501
– stage 2	50	4,232	7,209	2,763	—	14,254	(169)	14,085
– stage 3	—	—	—	—	377	377	(101)	276
Loans and advances to banks at amortized cost	335	6	3	—	—	344	—	344
– stage 1	335	6	3	—	—	344	—	344
– stage 2	—	—	—	—	—	—	—	—
– stage 3	—	—	—	—	—	—	—	—
Other financial assets at amortized cost	23,397	2,076	1,253	40	17	26,783	(26)	26,757
– stage 1	23,397	1,787	1,017	4	—	26,205	(3)	26,202
– stage 2	—	289	236	36	—	561	(6)	555
– stage 3	—	—	—	—	17	17	(17)	—
Out-of-scope for IFRS 9								
Trading assets	4,172	124	—	—	—	4,296	—	4,296
Other financial assets mandatorily measured at fair value through profit or loss	18	—	—	—	—	18	—	18
Derivative assets	6,018	145	54	3	—	6,220	—	6,220
Total gross carrying amount on-balance sheet	87,230	21,968	16,069	2,952	394	128,613	(345)	128,268
Percentage of total credit quality	67.8 %	17.1 %	12.5 %	2.3 %	0.3 %	100.0 %		
Loan and other credit-related commitments	18,781	19,453	7,976	646	122	46,978	(30)	46,948
– stage 1	18,725	16,289	5,418	50	—	40,482	(10)	40,472
– stage 2	56	3,164	2,558	596	—	6,374	(20)	6,354
– stage 3	—	—	—	—	122	122	—	122
Financial guarantees	988	384	280	41	32	1,725	(2)	1,723
– stage 1	988	380	206	2	—	1,576	(1)	1,575
– stage 2	—	4	74	39	—	117	(1)	116
– stage 3	—	—	—	—	32	32	—	32
In-scope: Loan and other credit-related commitments and financial guarantees	19,769	19,837	8,256	687	154	48,703	(32)	48,671
Out-of-scope: Performance guarantee contracts	2,027	1,376	723	35	13	4,174	(1)	4,173
31 December 2022	109,026	43,181	25,048	3,674	561	181,490	(378)	181,112

1. *For the purposes of this disclosure, gross carrying value is defined as the amortized cost of a financial asset, before adjusting for any loss allowance. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the balance sheet as it excludes fair value gains and losses.*

Concentration of credit risk

Concentration of credit risk may arise when the ability of a number of borrowers or counterparties to meet their contractual obligations are similarly affected by external factors. Diversification of credit risk is a key concept by which we are guided. In assessing and monitoring for credit risk concentration, we aggregate exposures by industry and geographic area as presented in the following tables.

Large customer concentrations

We monitor and manage credit risk from large customer concentrations, which we define as borrowing groups where approved facilities exceed 10% of our regulatory capital base, or $809m at 31 December 2023 (2022: $734m). At 31 December 2023, the aggregate approved facilities from large customers was $42,970m (2022: $44,391m), an average of $1,953m (2022: $1,776m) per customer. The decrease in total approved facilities from large customers is primarily comprised of decreased facilities to existing corporate customers, offset by increased facilities to Canadian provinces and Canadian chartered banks.

Wholesale lending

Wholesale loans are money lent to sovereign borrowers, banks, non-bank financial institutions and corporate entities.

This section provides further detail on the industries driving the movement in wholesale loans and advances to customers. Additionally, it provides a reconciliation of the opening 1 January 2023 allowance for ECL to the 31 December 2023 balance.

Total wholesale lending for loans and advances to customers at amortized cost

		2023		2022	
		Gross carrying amount	**Allowance for ECL**	Gross carrying amount	Allowance for ECL
		Total	**Total**	Total	Total
	Footnote	**$m**	**$m**	$m	$m
Corporate and commercial					
– agriculture, forestry and fishing		**811**	**(2)**	954	(3)
– mining and quarrying	1	**1,693**	**(17)**	1,677	(19)
– manufacturing		**6,419**	**(38)**	6,835	(38)
– electricity, gas, steam and air-conditioning supply		**234**	**(4)**	255	(7)
– water supply, sewerage, waste management and remediation		**127**	**—**	109	(1)
– construction		**1,064**	**(3)**	1,024	(9)
– wholesale and retail trade, repair of motor vehicles and motorcycles		**7,149**	**(44)**	7,116	(37)
– aviation, transportation and storage		**3,111**	**(5)**	2,818	(15)
– accommodation and food		**1,858**	**(7)**	1,658	(13)
– publishing, audiovisual and broadcasting		**758**	**(3)**	866	(6)
– real estate		**10,759**	**(28)**	10,723	(29)
– professional, scientific and technical activities		**849**	**(1)**	976	(3)
– administrative and support services		**866**	**(1)**	727	(12)
– education		**134**	**—**	113	(1)
– health and care		**392**	**(5)**	413	(14)
– arts, entertainment and recreation		**243**	**—**	255	(1)
– other services		**170**	**(1)**	240	(1)
– government		**46**	**—**	35	—
– non-bank financial institutions		**1,966**	**(7)**	2,259	(7)
At 31 Dec		**38,649**	**(166)**	39,053	(216)
By geography	2				
Canada		**35,355**	**(151)**	36,058	(206)
– British Columbia		**10,893**	**(27)**	10,704	(28)
– Ontario		**13,005**	**(51)**	13,541	(100)
– Alberta		**5,143**	**(23)**	5,199	(40)
– Quebec		**4,365**	**(43)**	4,534	(23)
– Saskatchewan and Manitoba		**1,321**	**(3)**	1,342	(12)
– Atlantic provinces		**628**	**(4)**	738	(3)
United States of America		**2,025**	**(13)**	1,808	(8)
Other		**1,269**	**(2)**	1,187	(2)
At 31 Dec		**38,649**	**(166)**	39,053	(216)

1. *Mining and quarrying includes energy related exposures which constitute approximately 54% of the gross carrying amount and 75% of the allowance for ECL at 31 December 2023 (31 December 2022: Gross carrying amount was 59% and allowance for ECL was 60%).*
2. *Provincial geographic distribution is based on the address of originating branch, and foreign geographic distribution is based on the country of incorporation.*

Wholesale lending reconciliation of allowances for loans and advances to banks and customers including loan commitments and financial guarantees*[1]

		2023				2022			
		Non-credit impaired		Credit-impaired		Non-credit impaired		Credit-impaired	
		Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
		Allowance for ECL	Allowance for ECL	Allowance for ECL	Allowance for ECL	Allowance for ECL	Allowance for ECL	Allowance for ECL	Allowance for ECL
	Footnote	$m	$m	$m	$m	$m	$m	$m	$m
At 1 Jan		46	119	82	247	67	119	106	292
Transfers of financial instruments:	2	84	(87)	3	—	21	(45)	24	—
– transfers from stage 1 to stage 2		(10)	10	—	—	(16)	16	—	—
– transfers from stage 2 to stage 1		94	(94)	—	—	37	(37)	—	—
– transfers to stage 3		—	(3)	3	—	—	(24)	24	—
– transfers from stage 3		—	—	—	—	—	—	—	—
Net remeasurement of ECL arising from transfer of stage	2	(30)	10	—	(20)	(14)	16	—	2
New financial assets originated or purchased		12	—	—	12	15	—	—	15
Changes to risk parameters		(56)	34	82	60	(41)	38	80	77
Asset derecognized (including final repayments)		(2)	(12)	(10)	(24)	(2)	(10)	(1)	(13)
Assets written off		—	—	(83)	(83)	—	—	(129)	(129)
Foreign exchange		—	—	—	—	—	1	2	3
At 31 Dec		54	64	74	192	46	119	82	247
ECL income statement (release)/charge for the year		(76)	32	72	28	(42)	44	79	81
Recoveries		—	—	(1)	(1)	—	—	(1)	(1)
Total ECL income statement (release)/charge for the year		(76)	32	71	27	(42)	44	78	80

1. *Excludes performance guarantee contracts.*
2. *Transfers of financial instruments represent stage movements of prior period ECL allowances to the current period stage classification. Net remeasurement line represents the current period change in ECL allowances for transfers, without considering changes to credit or other risk parameters.*

The wholesale allowance for ECL decreased by $55m or 22% as compared to 31 December 2022, and the wholesale lending change in ECL for the year ended 31 December 2023 resulted in an income statement charge of $27m. The charge for the year was primarily driven by new charges in non-performing loans, partly offset by a release in performing loans due to a relative improvement in forward-looking macro-economic variables.

The ECL charge for the year ended 31 December 2023 of $27m presented in the above table consisted of a $60m charge relating to underlying risk parameter changes, including the credit quality impact of financial instruments transferred between stages, offset by a $20m release related to the net remeasurement impact of stage transfers, and a release of $12m relating to underlying net volume movement. There were recoveries of $1m during the year.

The total ECL coverage for loans and advances to customers for corporate and commercial at 31 December 2023 was 0.4%, a decrease of 0.2 percentage points as compared to 31 December 2022.

Personal lending

Personal loans are money lent to individuals rather than institutions. This includes both secured and unsecured loans such as mortgages and credit card balances.

This section presents further disclosures related to personal lending. Additionally, it provides a reconciliation of the opening 1 January 2023 to 31 December 2023 closing allowance for ECL.

Total personal lending for loans and advances to customers at amortized cost

	Footnote	2023 Gross carrying amount $m	2023 Allowance for ECL $m	2022 Gross carrying amount $m	2022 Allowance for ECL $m
Residential mortgages		**32,837**	**(82)**	33,388	(58)
Home equity lines of credit		**1,326**	**(6)**	1,407	(11)
Personal revolving loan facilities		**419**	**(12)**	427	(10)
Retail card		**446**	**(18)**	405	(13)
Run-off consumer loan portfolio		**20**	**(2)**	26	(3)
Other personal loan facilities		**687**	**(5)**	474	(7)
At 31 Dec		**35,735**	**(125)**	36,127	(102)
By geography	1				
Canada		**35,715**	**(125)**	36,107	(101)
– British Columbia		**14,640**	**(45)**	15,372	(38)
– Ontario		**17,106**	**(65)**	16,704	(47)
– Alberta		**1,808**	**(6)**	1,793	(7)
– Quebec		**1,565**	**(6)**	1,618	(5)
– Saskatchewan and Manitoba		**312**	**(2)**	327	(2)
– Atlantic provinces		**275**	**(1)**	285	(2)
– Territories		**9**	**—**	8	—
Other		**20**	**—**	20	(1)
At 31 Dec		**35,735**	**(125)**	36,127	(102)

1. *Geographic distribution is based on the property address for real estate secured lending and customer address for others.*

Personal lending reconciliation of allowances for loans and advances to banks and customers including loan commitments and financial guarantees*[1]

	Footnote	2023 Non-credit impaired Stage 1 $m	2023 Non-credit impaired Stage 2 $m	2023 Credit-impaired Stage 3 $m	2023 Total $m	2022 Non-credit impaired Stage 1 $m	2022 Non-credit impaired Stage 2 $m	2022 Credit-impaired Stage 3 $m	2022 Total $m
At 1 Jan		**13**	**71**	**19**	**103**	11	44	22	77
Transfers of financial instruments:	2	**47**	**(47)**	**—**	**—**	83	(81)	(2)	—
– transfers from stage 1 to stage 2		**(3)**	**3**	**—**	**—**	(3)	3	—	—
– transfers from stage 2 to stage 1		**48**	**(48)**	**—**	**—**	83	(83)	—	—
– transfers to stage 3		**—**	**(8)**	**8**	**—**	—	(6)	6	—
– transfers from stage 3		**2**	**6**	**(8)**	**—**	3	5	(8)	—
Net remeasurement of ECL arising from transfer of stage	2	**(18)**	**10**	**—**	**(8)**	(36)	12	—	(24)
New financial assets originated or purchased		**4**	**—**	**—**	**4**	5	—	—	5
Changes to risk parameters		**(33)**	**68**	**21**	**56**	(48)	106	13	71
Asset derecognized (including final repayments)		**(2)**	**(8)**	**—**	**(10)**	(2)	(10)	(1)	(13)
Assets written off		**—**	**—**	**(19)**	**(19)**	—	—	(13)	(13)
At 31 Dec		**11**	**94**	**21**	**126**	13	71	19	103
ECL income statement (release)/charge for the year		**(49)**	**70**	**21**	**42**	(81)	108	12	39
Recoveries		**—**	**—**	**(4)**	**(4)**	—	—	(5)	(5)
Total ECL income statement (release)/charge for the year		**(49)**	**70**	**17**	**38**	(81)	108	7	34

1. *Excludes performance guarantee contracts.*
2. *Transfers of financial instruments represent stage movements of prior period ECL allowances to the current period stage classification. Net remeasurement line represents the current period change in ECL allowances for transfers, without considering changes to credit or other risk parameters.*

The personal lending allowance for ECL increased by $23m or 22% during 2023 and resulted in an income statement charge of $38m. The charge for the year was due to the impact of rising interest rates on the mortgage portfolio.

The ECL charge for the year ended 31 December 2023 of $38m presented in the above table consisted of a $56m charge relating to underlying risk parameter changes, including the credit quality impact of financial instruments transferred between stages, offset by a $8m release related to the net remeasurement impact of stage transfers, and a release of $6m relating to underlying net volume movement. There were recoveries of $4m during the year.

The write-offs were mainly from cards and personal loan facilities.

Mortgages and home equity lines of credit ('HELOC')

The bank's mortgage and HELOC portfolios, which are lines of credit secured by equity in real estate, are considered to be low-risk since the majority are secured by a first charge against the underlying real estate.

The following tables detail how the bank mitigates risk further by diversifying the geographical markets in which it operates as well as benefiting from borrower default insurance. In addition, the bank maintains strong underwriting and portfolio monitoring standards to ensure the quality of its portfolio is maintained.

Insurance and geographic distribution[1, 2]

	Year ended						
	Residential mortgages					HELOC	
	Insured[3]		Uninsured[3]		Total	Uninsured	
	$m	%	$m	%	$m	$m	%
British Columbia	**1,297**	**9 %**	**12,369**	**91 %**	**13,666**	**602**	**100 %**
Western Canada[4]	**761**	**40 %**	**1,136**	**60 %**	**1,897**	**122**	**100 %**
Ontario	**2,516**	**15 %**	**13,984**	**85 %**	**16,500**	**540**	**100 %**
Quebec and Atlantic provinces	**677**	**42 %**	**953**	**58 %**	**1,630**	**74**	**100 %**
At 31 Dec 2023	**5,251**	**16 %**	**28,442**	**84 %**	**33,693**	**1,338**	**100 %**
British Columbia	1,432	10 %	12,995	90 %	14,427	659	100 %
Western Canada[4]	815	44 %	1,046	56 %	1,861	137	100 %
Ontario	2,617	16 %	13,390	84 %	16,007	537	100 %
Quebec and Atlantic provinces	729	42 %	995	58 %	1,724	66	100 %
At 31 Dec 2022	5,593	16 %	28,426	84 %	34,019	1,399	100 %

1. *Geographic distribution is based on the property location.*
2. *Residential mortgages and HELOC include Wholesale lending and Personal lending exposures.*
3. *Insured mortgages are protected from potential losses caused by borrower default through the purchase of insurance coverage, either from the Canadian Housing and Mortgage Corporation or other accredited private insurers.*
4. *Western Canada excludes British Columbia.*

The following table offers an overview of the duration it will take clients to repay their residential mortgages. The terms are derived from the current payments made by customers.

Given interest rate increases which started in 2022, many variable-rate customers will have an extended amortization term as compared to the original term, unless both a trigger rate threshold has been met for higher adjusted payments, and the customer has adjusted their regular payment accordingly. Some customers may be offered temporary extended amortizations up to the end of their current mortgage term. At renewal, for all mortgages, the bank requires the amortization period to return to the original agreed upon schedule, which might require higher payments depending upon the prevailing rates at renewal time; otherwise a refinancing of the mortgage would be necessary.

The Bank of Canada steadily increased rates from March 2022 up to July 2023. Rates have held since July 2023, and payment adjustments and renewals have resulted in overall amortization decreasing.

Amortization period[1]

	Year ended				
	Residential mortgages				
	≤ 20 years	> 20 years ≤ 25 years	> 25 years ≤ 30 years	> 30 years < 35 years	> 35 years[2]
At 31 Dec 2023	**22.4 %**	**35.8 %**	**20.5 %**	**8.4 %**	**12.9 %**
At 31 Dec 2022	16.5 %	35.4 %	15.4 %	6.9 %	25.8 %

1. *Amortization period is based on the effective remaining term of residential mortgages.*
2. *Our policy is to originate mortgages with amortization periods of 30 years or less. Amortization periods greater than 30 years reflect the impact of increases in interest rates on our variable rate mortgage portfolios. For these loans, the amortization period resets to the original amortization schedule upon renewal, or when the loan hits the threshold trigger rate. For some customers, temporary amortization extensions > 30 years have been accorded.*

Average loan-to-value ratios of new originations[1,2]

	Quarter ended	
	Uninsured % LTV[3]	
	Residential mortgages	HELOC
	%	%
British Columbia	**55.4 %**	**51.4 %**
Western Canada[4]	**66.8 %**	**68.5 %**
Ontario	**59.7 %**	**58.4 %**
Quebec and Atlantic provinces	**62.9 %**	**59.4 %**
Total Canada for the three months ended 31 Dec 2023	**59.6 %**	**57.2 %**
Total Canada for the three months ended 31 Dec 2022	58.9 %	56.8 %

1. *All new loans and home equity lines of credit were originated by the bank; there were no acquisitions during the period.*
2. *New originations exclude existing mortgage renewals.*
3. *Loan-to-value ratios are simple averages, based on property values at the date of mortgage origination.*
4. *Western Canada excludes British Columbia.*

Potential impact of an economic downturn on residential mortgage loans and home equity lines of credit

The bank performs stress testing on its personal lending portfolio to assess the impact of increased levels of unemployment, rising interest rates, reduction in property values and changes in other relevant macro-economic variables. Potential increase in losses in the mortgage portfolio under downturn economic scenarios are considered manageable given the composition of the portfolio, the low loan-to-value in the portfolio, and risk mitigation strategies in place.

Stage 2 ECL has increased due to the number of customers currently on a variable rate or scheduled for a fixed rate renewal that are vulnerable to interest rate increases.

Credit-impaired loans*

The bank determines that a financial instrument is credit-impaired and in stage 3 by considering relevant objective evidence, primarily whether:

- contractual payments of either principal or interest are past due for more than 90 days;
- there are other indications that the borrower is unlikely to pay one or more of its credit obligations on the agreed repayment terms without recourse by the bank for remedial actions; and
- the loan is otherwise considered to be in default. If such unlikeliness to pay is not identified at an earlier stage, it is deemed to occur when an exposure is 90 days past due. The definitions of credit-impaired and default are aligned as far as possible so that stage 3 represents all loans which are considered defaulted or otherwise credit-impaired.

The following table provides an analysis of the gross carrying value of loans and advances to banks and customers that are determined to be impaired (stage 3 financial assets).

Credit-impaired loans and advances to banks and customers*

		2023		2022	
		Gross carrying amount	**Allowance for ECL**	Gross carrying amount	Allowance for ECL
	Footnotes	**$m**	**$m**	$m	$m
Corporate and commercial		**228**	**(69)**	245	(82)
– agriculture, forestry and fishing		**2**	**—**	2	—
– mining and quarrying	1	**18**	**(7)**	86	(14)
– manufacture		**73**	**(28)**	43	(16)
– electricity, gas, steam and air-conditioning supply		**15**	**(4)**	16	(7)
– construction		**18**	**—**	5	(2)
– wholesale and retail trade, repair of motor vehicles and motorcycles		**50**	**(21)**	47	(17)
– aviation, transportation and storage		**4**	**(1)**	5	(2)
– accommodation and food		**1**	**(1)**	—	—
– publishing, audiovisual and broadcasting		**—**	**—**	6	(4)
– real estate		**38**	**(3)**	1	(1)
– administrative and support services		**2**	**—**	8	(8)
– health and care		**5**	**(3)**	25	(10)
– non-bank financial institutions		**2**	**(1)**	1	(1)
Households	2	**183**	**(21)**	132	(19)
At 31 Dec		**411**	**(90)**	377	(101)

1. *Mining and quarrying includes energy related exposures which constitute approximately 69% of the gross carrying amount and 61% of the allowance for ECL at 31 December 2023 (31 December 2022: Gross carrying amount was 57% and allowance for ECL was 47%).*
2. *Households includes the personal lending portfolio.*

The decrease in allowance for ECL on credit-impaired loans during 2023 was primarily driven by write-offs on both existing and newly recognized allowances for ECLs.

Forborne loans

The gross carrying amount of forborne loans was $989m at 31 December 2023 (31 December 2022: $497m) and the allowance for ECL was $46m (31 December 2022: $43m). The increase in the gross carrying amount is driven by an increase of $574m in personal forborne loans which do not carry as high of an ECL allowance relative to allowance on other loan portfolios, partly offset by a decrease of $83m in wholesale forborne loans compared to 31 December 2022.

As stated in the 'Credit risk management' section on page 29, our definition of forborne captures non-payment related concessions.

Collateral and other credit enhancements

Although collateral can be an important mitigant of credit risk, it is the bank's practice to lend on the basis of the customer's ability to meet their obligations out of cash flow resources rather than rely on the value of security offered. Depending on the customer's standing and the type of product, some facilities may be unsecured. However, for other lending a charge over collateral is obtained and considered in determining the credit decision and pricing. In the event of default, the bank may utilize the collateral as a source of repayment.

The principal collateral types are as follows:

- in the personal sector, mortgages over residential properties or charges over other personal assets being financed;
- in the commercial and industrial sector, charges over business assets such as land, buildings and equipment, inventory and receivables;
- in the commercial real estate sector, charges over the properties being financed; and
- in the financial sector, charges over financial instruments such as debt and equity securities in support of trading facilities.

Our credit risk management policies include appropriate guidelines on the acceptability of specific classes of collateral or credit risk mitigation. Valuation parameters are updated periodically depending on the nature of the collateral. Full covering corporate guarantees as well as bank and sovereign guarantees are recognized as credit mitigants for capital purposes.

Collateral held as security for financial assets other than loans is determined by the nature of the instrument. Government and other debt securities, including money market instruments, are generally unsecured, with the exception of asset-backed securities and similar instruments, which are secured by pools of financial assets.

The bank has policies in place to monitor the existence of undesirable concentration of the collateral supporting our credit exposures.

For credit-impaired loans, the collateral values cannot be directly compared with impairment allowances recognized. The collateral figures are based on latest assessment performed of the collateral. Impairment allowances are calculated on a different basis, by considering other cash flows and adjusting collateral values for costs of realizing collateral.

Collateral information for credit-impaired loans and advances to customers including loan commitments*

	2023				2022			
	Gross carrying amount	Allowance for ECL	Net carrying amount	Collateral	Gross carrying amount	Allowance for ECL	Net carrying amount	Collateral
	$m	$m	$m	$m	$m	$m	$m	$m
Stage 3								
Corporate and commercial	**294**	**(74)**	**220**	**583**	326	(82)	244	368
Personal - Residential mortgages	**149**	**(13)**	**136**	**282**	105	(13)	92	172

Derivative portfolio

The bank participates in transactions exposing us to counterparty credit risk. Counterparty credit risk is the risk of financial loss if the counterparty to a transaction defaults before satisfactorily settling it. It arises principally from over-the-counter ('OTC') derivatives and securities financing transactions and is calculated in both the trading and non-trading books. Transactions vary in value by reference to a market factor such as an interest rate, exchange rate or asset price.

The credit equivalent amount of derivative exposure comprises the current replacement cost of positions plus an allowance for potential future fluctuation of derivative contracts. We enter into derivatives primarily to support our customers' requirements and to assist us in the management of assets and liabilities, particularly relating to interest and foreign exchange rate risks.

A more detailed analysis of our derivative portfolio is presented in note 12.

Treasury risk

	Page
Overview	44
Treasury risk management	44
Liquidity and funding risk in 2023	46
Capital risk in 2023	48
Interest rate risk in the banking book in 2023	49

Overview

Treasury risk is the risk of having insufficient capital, liquidity or funding resources to meet financial obligations and satisfy regulatory requirements. Treasury risk also includes the risk to our earnings or capital due to changes in market interest rates, together with pension risk.

Treasury risk arises from changes to the respective resources and risk profiles driven by customer behaviour, management decisions or the external environment.

Approach and policy

Our objective in the management of treasury risk is to maintain appropriate levels of capital, liquidity, funding, foreign exchange and market risk to support our business strategy, and meet our regulatory and stress testing-related requirements.

Our approach to treasury management is driven by our strategic and organizational requirements, taking into account the regulatory, economic and commercial environment. We aim to maintain a strong capital and liquidity base to support the risks inherent in our business and invest in accordance with our strategy, meeting both consolidated and local regulatory requirements at all times.

Our policy is underpinned by our risk management framework, our internal capital adequacy assessment process ('ICAAP') and our internal liquidity adequacy assessment process ('ILAAP'). The risk framework incorporates a number of measures aligned to our assessment of risks for both internal and regulatory purposes.

The ICAAP and ILAAP provide an assessment of the bank's capital and liquidity adequacy with consideration of the bank's risk metrics, business model, strategy, performance and planning, risks to capital, and the implications of stress testing to capital and liquidity.

Treasury risk management

Governance and structure

The ARC is responsible for defining the bank's risk appetite within the bank's management framework. The ARC also reviews and recommends the approval of the bank's treasury risk policies and is responsible for its oversight.

The bank's Asset and Liability Committee ('ALCO') is responsible for the implementation of policies and procedures to manage treasury risk including monitoring metrics against the bank's risk appetite. Its mandate is established by the ARC, and the bank's Executive Committee. ALCO supports the Chief Financial Officer's executive accountability for the treasury risks and is overseen by the Risk Management Meeting ('RMM').

The Chief Risk Officer is the executive risk steward and is individually accountable for second line decision making over Treasury Risk activities. Treasury Risk Management ('TRM') supports the risk steward in undertaking the individual's second line of defence responsibilities and the related decision-making process.

The Treasury team is responsible for the application of the treasury risk management framework. Markets Treasury has responsibility for cash and liquidity management in accordance with practices and limits approved by ALCO, RMM and the ARC.

TRM carries out independent review, challenge and assurance of the appropriateness of the risk management activities undertaken by Treasury and Markets Treasury. Their work includes setting policies, providing advice on policy implementation, and reviewing and challenging risk appetite, ICAAP, ILAAP and other treasury risk activities.

Capital, liquidity and funding risk management processes

Assessment and risk appetite

Our capital management framework incorporates key capital risk appetites for common equity tier 1 capital ratio, Tier 1 capital ratio, total capital ratio and leverage ratio. The ICAAP is an assessment of the bank's capital position, outlining both regulatory and internal capital resources and requirements resulting from the bank's business model, strategy, risk profile and management, performance and planning, risks to capital, and the implications of stress testing. Our assessment of capital adequacy is driven by an assessment of risks. These risks include credit, market, operational, pensions, structural foreign exchange, interest rate risk in the banking book. Climate risk is also considered as part of the ICAAP, and we are continuing to develop our approach. The ICAAP supports the determination of the capital risk appetite and target ratios, as well as enables the assessment and determination of regulatory capital requirements.

An appropriate funding and liquidity profile is managed through critical Board-level appetite measures including liquidity coverage ratio ('LCR'), net stable funding ratio ('NSFR') and the internal liquidity metric ('ILM'). In addition, we use a wider set of measures to manage an appropriate funding and liquidity profile, including depositor concentration limits, intra-day liquidity, forward-looking funding assessments and other key measures.

We aim to meet internal minimum requirements and any applicable regulatory requirements at all times. These requirements are

assessed through the ILAAP, which ensures that the bank has robust strategies, policies, stress testing, processes and systems for the identification, measurement, management and monitoring of liquidity risk over an appropriate set of time horizons, including intra-day. The ILAAP informs the validation of risk tolerance and the setting of risk appetite and also assesses the bank's capability to manage liquidity and funding effectively.

We aim to ensure that management has oversight of our capital, liquidity and funding risks by maintaining comprehensive policies, metrics and controls, and through robust governance, in line with our risk management framework.

Planning and performance

Capital and risk-weighted asset ('RWA') plans and funding and liquidity plan form part of the financial resource plan ('FRP') that is approved by the Board. Capital and RWA forecasts are performed on monthly basis. In addition, capital, RWAs and liquidity metrics are monitored and managed against the FRP.

Through our internal governance processes, we seek to strengthen discipline over our investment and capital allocation decisions, and to ensure that returns on investment meet management's objectives. Our strategy is to allocate capital to businesses to support growth objectives where returns above internal hurdle levels have been identified and in order to meet regulatory and economic capital needs. We evaluate and manage business returns by using a return on average tangible equity measure.

Risks to capital and liquidity

Outside the stress testing framework, other risks may be identified that have the potential to affect our RWAs, capital position and/or funding and liquidity profile. Downside and Upside scenarios are assessed against our capital and liquidity management objectives and mitigating actions are assigned as necessary. We closely monitor regulatory changes and continue to evaluate the impact of these upon our capital and liquidity requirements particularly those related to the Basel III Reforms that have been implemented in the second quarter of 2023, with the exception of credit valuation adjustment and market risk which will be implemented on 1 January 2024.

Stress testing and recovery planning

The bank uses stress testing to evaluate the robustness of plans and risk portfolios, and to meet the requirements for stress testing set by the supervisor. Stress testing also informs the ICAAP and ILAAP and supports recovery planning. It is an important output used to evaluate how much capital and liquidity the bank requires in setting risk appetite for capital and liquidity risk. It is also used to re-evaluate business plans where analysis shows capital, liquidity and/or returns do not meet their target.

In addition to a range of internal stress tests, we are subject to supervisory stress testing. The results of regulatory stress testing and our internal stress tests are used when assessing our internal capital requirements through the ICAAP.

The bank has an established recovery plan, which set out potential options management could take in a range of stress scenarios that could result in a breach of our capital or liquidity buffers. The recovery plan provides detailed actions that management would consider taking in a stress scenario should the positions deteriorate and threaten to breach risk appetite and regulatory minimum levels. The bank monitors the internal and external triggers that could threaten the capital, liquidity or funding positions. This is to help ensure that our capital and liquidity position can be recovered even in an extreme stress event.

Measurement of interest rate risk in the banking book processes

Assessment and risk appetite

We use a variety of cash and derivative instruments to manage our interest rate risk within prescribed Board-level appetite measures. We use derivatives to modify the interest rate characteristics of related balance sheet instruments and to hedge anticipated exposures when market conditions are considered beneficial.

The Treasury team uses a number of measures to monitor and control interest rate risk in the banking book, including: net interest income sensitivity and economic value of equity sensitivity.

Net interest income sensitivity (Earnings at Risk sensitivity)

A principal part of our management of non-traded interest rate risk is to monitor the sensitivity of expected net interest income ('NII') under varying interest rate scenarios (i.e. simulation modelling), through the earning at risk ('EaR') model, where all other economic variables are held constant. This monitoring is undertaken by ALCO, where both one-year and five-year NII sensitivities across a range of interest rate scenarios are forecasted.

Projected NII sensitivity figures represent the effect of pro forma movements in projected yield curves based on a static balance sheet size and structure. The exception to this is where the size of the balances or repricing is deemed interest rate sensitive. These sensitivity calculations do not incorporate actions that would be taken by Markets Treasury or in the business that originates the risk to mitigate the effect of interest rate movements.

The NII sensitivity calculations assume that interest rates of all maturities move by the same amount in the 'up-shock' scenario. The sensitivity calculations in the 'down-shock' scenario reflect no floors to the shocked market rates. However, customer product-specific interest rate floors are recognized where applicable.

Economic value of equity sensitivity

Economic value of equity ('EVE') represents the present value of the future banking book cash flows that could be distributed to equity providers under a managed run-off scenario. This equates to the current book value of equity plus the present value of future NII in this scenario. EVE can be used to assess the economic capital required to support interest rate risk in the banking book. An EVE sensitivity represents the expected movement in EVE due to pre-specified interest rate shocks, where all other economic variables are held constant. We monitor EVE sensitivities as a percentage of capital resources.

Pension risk management processes

The bank sponsors a number of pension and post-retirement benefit plans for current eligible and former employees. Pension arrangements include defined benefit pension plans, defined contribution pension plans and supplementary arrangements that provide pension benefits in excess of statutory limits.

In defined contribution pension plans, the contributions that the bank is required to make are known, while the ultimate pension benefit will vary, typically with investment returns achieved by investment choices made by the employee. While the market risk to the bank of defined contribution plans is low, the bank is still exposed to operational and reputational risk.

For existing employees with defined benefit pension plans, the level of pension benefit is known. Therefore, the level of contributions required by the bank will vary due to a number of risks including investment return, prevailing economic environments, changes in either rates or inflation expectation and longevity risk (plan members living longer than expected). The bank works with its plan actuaries to determine the level of funding required.

Pension risk is assessed using an economic capital model which considers potential variations in these factors. The impact of these

variations on both pension assets and pension liabilities is assessed using a one-in 200-year stress test.

The bank has introduced a number of de-risking pension strategies over the years, namely:

- Defined benefit pension plan was closed to new members and introduction in 2004 of a defined contribution pension plan for eligible new hires
- Implementing an annuity buy-in strategy to reduce longevity and financial risk for the closed defined benefit pension plans
- Merging of plans to reduce administration costs

Liquidity and funding risk in 2023

Liquidity and funding risk is the potential for loss if the bank is unable to generate sufficient cash or its equivalents to meet financial commitments in a timely manner at reasonable prices as they become due. Financial commitments include liabilities to depositors and suppliers, lending, investment and pledging commitments.

The objective of our liquidity and funding risk management framework is to ensure that all foreseeable funding commitments, including deposit withdrawals, can be met when due, and that access to the wholesale markets is coordinated and cost-effective. It is designed to allow us to withstand very severe liquidity stresses and be adaptable to changing business models, markets and regulations.

The bank remained above regulatory minimum liquidity and funding levels throughout 2023.

Management of liquidity and funding risk

In accordance with OSFI's Liquidity Adequacy Requirements ('LAR') guideline, which incorporates Basel liquidity standards, the bank is required to maintain a Liquidity Coverage Ratio ('LCR') and Net Stable Funding Ratio ('NSFR') (NSFR effective April 2023 for the bank as a Small and Medium-Sized Deposit-Taking Institution) above 100% as well as monitor the Net Cumulative Cash Flow ('NCCF'). The LCR estimates the adequacy of liquidity over a 30-day stress period while the NCCF calculates a horizon for net positive cash flows in order to capture the risk posed by funding mismatches between assets and liabilities.

To determine the bank's stable funding requirement, the bank calculated the NSFR on a Prudential Regulation Authority basis throughout 2023 and also implemented NSFR on an OSFI basis since July 2023. The NSFR requires banks to maintain a stable funding profile relative to the composition of their assets and off-balance sheet activities and reflects a bank's funding profile within a one-year time horizon and beyond. It is designed to complement the LCR. The bank also implemented enhancements to the NCCF in April 2023 in accordance with OSFI's finalized updates to its LAR guideline.

The bank's LCR is summarized in the following table. For the quarter ended 31 December 2023, the bank's average LCR of 170% is calculated as the ratio of the stock of High-Quality Liquid Assets ('HQLA') to the total net stressed cash outflows over the next 30 calendar days. Compared to the previous year, the bank's average LCR increased to 170% from 164%. This was predominately due to a decrease of net outflows as a result of less wholesale customer deposits maturing within the 30-day LCR window. The bank continues to closely monitor liquidity for changes in customers' needs as well as for any changes driven by market volatility.

OSFI liquidity coverage ratio[1]

	Average for the three months ended[1]	
	31 Dec 2023	31 Dec 2022
Total HQLA[2] ($m)	**29,908**	30,141
Total net cash outflows[2] ($m)	**17,638**	18,360
Liquidity coverage ratio (%)	**170**	164

1. *The data in this table has been calculated using averages of the three month-end figures in the quarter. Consequently, the LCR is an average ratio for the three months of the quarter and might not equal the LCR ratios calculated dividing total weighted HQLA by total weighted net cash outflows.*
2. *These are weighted values and are calculated after the application of the weights prescribed under the OSFI LAR Guideline for HQLA and cash inflows and outflows.*

The OSFI NSFR as of 31 December 2023 was 136% with total available stable funding of $77.9bn and total required stable funding of $57.2bn.

In addition to regulatory metrics, we use a wide set of measures to manage an appropriate funding and liquidity profile. These include management of liquidity on a stand-alone basis with no implicit reliance on HSBC Group or central banks, a depositor concentration limit, cumulative term funding concentration limits, an ILAAP, a minimum LCR requirement by currency, management and monitoring of intra-day liquidity, liquidity funds transfer pricing and forward-looking funding assessments.

Liquid assets

Liquid assets are held and managed on a stand-alone operating entity basis. Most are held directly by the Markets Treasury department, primarily for the purpose of managing liquidity risk in line with the internal liquidity and funding risk management framework. Liquid assets also include any unencumbered liquid assets held outside Markets Treasury departments for any other purpose. To qualify as part of the liquid asset buffer, assets must have a deep and liquid repo market in the underlying security. The internal liquidity and funding risk management framework gives ultimate control of all unencumbered assets and sources of liquidity to Markets Treasury.

The table below shows the estimated liquidity value unweighted (before assumed haircuts) of assets categorized as liquid and used for the purpose of calculating the OSFI LCR metric. The level of liquid assets reported reflects the stock of unencumbered liquid assets at the reporting date, using the regulatory definition of liquid assets. HQLA is substantially comprised of Level 1 assets, such as cash, deposits with central banks and highly rated securities issued or guaranteed by governments, central banks and supranational entities. Liquid assets consist of cash or assets that can be converted into cash at little or no loss of value.

Our liquid assets at 31 December 2023 decreased by $1bn from 31 December 2022 predominately due to a decrease in debt securities in issue and partially offset by a decrease in customer loans and an increase in customer deposits.

Liquid assets[1]

	2023	2022
	$m	$m
Level 1	**29,355**	30,065
Level 2a	**1,851**	2,025
Level 2b	**28**	108
At 31 Dec	**31,234**	32,198

1. *The liquid asset balances stated here are at the above dates (spot rate) and are unweighted and therefore do not match the liquid asset balances stated in the LCR ratio calculations which are the average for the quarter and are weighted.*

Sources of funding

Current accounts and savings deposits, payable on demand or on short notice, form a significant part of our funding. We place considerable importance on maintaining the stability and growth of these deposits, which provide a diversified pool of funds.

We also access wholesale funding markets (secured and unsecured) across diversified terms, funding types, and currencies, to ensure low exposure to a sudden contraction of wholesale funding capacity and to minimize structural liquidity gaps. As part of our wholesale funding arrangements we use a number of programs to raise funds so that undue reliance is not placed on any one source of funding.

No reliance is placed on unsecured money market wholesale funding as a source of stable funding. Only wholesale funding with a residual term to maturity of one year or greater is counted towards the stable funding base. In addition, our stress testing assumptions require an equivalent amount of liquid assets to be held against wholesale funding maturing within the relevant stress testing horizon.

The bank issued a Euro denominated covered bond during the first quarter of 2023. The bank currently has three Euro denominated covered bonds listed on the London Stock Exchange as of 31 December 2023. These diversify the bank's source of funds while also expanding the bank's investor base.

Contractual maturity of financial liabilities

The table below shows, on an undiscounted basis, all cash flows relating to principal and future coupon payments (except for trading liabilities and derivatives not treated as hedging derivatives). For this reason, balances in the table below do not match directly with those in our consolidated balance sheet. Undiscounted cash flows payable in relation to hedging derivative liabilities are classified according to their contractual maturities. Trading liabilities and derivatives not treated as hedging derivatives are included in the 'Due not more than 1 month' time bucket and not by contractual maturity.

In addition, loans and other credit-related commitments, financial guarantees and similar contracts are generally not recognized on our balance sheet. The undiscounted cash flows potentially payable under loan and other credit-related commitments, and financial guarantees and similar contracts are classified on the basis of the earliest date they can be called.

Cash flows payable by the bank under financial liabilities by remaining contractual maturities*

	Footnote	Due not more than 1 month	Due over 1 month but not more than 3 months	Due over 3 months but not more than 1 year	Due over 1 year but not more than 5 years	Due over 5 years	Total
		$m	$m	$m	$m	$m	$m
Deposits by banks		**359**	**—**	**—**	**—**	**—**	**359**
Customer accounts		**54,727**	**5,052**	**21,441**	**3,328**	**—**	**84,548**
Repurchase agreements - non-trading		**3,674**	**—**	**—**	**—**	**—**	**3,674**
Trading liabilities		**1,870**	**—**	**—**	**—**	**—**	**1,870**
Derivatives		**3,633**	**—**	**32**	**4,406**	**—**	**8,071**
Debt securities in issue		**23**	**270**	**1,237**	**9,269**	**124**	**10,923**
Subordinated liabilities	1	**—**	**18**	**55**	**1,298**	**17**	**1,388**
Lease liabilities		**3**	**7**	**32**	**155**	**113**	**310**
Other financial liabilities		**3,810**	**758**	**506**	**1,752**	**—**	**6,826**
Total on-balance sheet financial liabilities		**68,099**	**6,105**	**23,303**	**20,208**	**254**	**117,969**
Loan and other credit-related commitments		**48,059**	**—**	**—**	**—**	**—**	**48,059**
Financial guarantees		**1,689**	**—**	**—**	**—**	**—**	**1,689**
At 31 Dec 2023		**117,847**	**6,105**	**23,303**	**20,208**	**254**	**167,717**
Proportion of cash flows payable in period		**70 %**	**4 %**	**14 %**	**12 %**	**— %**	
Deposits by banks		412	—	306	—	—	718
Customer accounts		56,569	3,082	20,939	2,088	—	82,678
Repurchase agreements - non-trading		4,412	24	—	—	—	4,436
Trading liabilities		3,732	—	—	—	—	3,732
Derivatives		5,771	—	82	3,190	—	9,043
Debt securities in issue		1,536	1,554	4,713	8,422	197	16,422
Subordinated liabilities	1	—	17	51	276	1,085	1,429
Lease liabilities	2	3	7	31	152	108	301
Other financial liabilities		3,836	1,183	442	1,768	—	7,229
Total on-balance sheet financial liabilities		76,271	5,867	26,564	15,896	1,390	125,988
Loan and other credit-related commitments		46,978	—	—	—	—	46,978
Financial guarantees		1,725	—	—	—	—	1,725
At 31 Dec 2022		124,974	5,867	26,564	15,896	1,390	174,691
Proportion of cash flows payable in period		72 %	3 %	15 %	9 %	1 %	

1. *Excludes interest payable exceeding 15 years.*
2. *Comparative figures for lease liabilities were amended as a result of a prior year misclassification.*

Encumbered assets

In the normal course of business, the bank will pledge or otherwise encumber assets. The pledging of assets will occur to meet the bank's payments and settlement system obligations, as security in a repurchase transaction, to support secured debt instruments or as margining requirements. Limits are in place to control such pledging.

The bank actively monitors its pledging positions. Encumbered assets are not counted towards the bank's liquid assets used for internal stress testing scenarios. We further estimate the impact of credit rating downgrade triggers, and exclude the estimated impact from liquid assets within the bank's liquidity stress testing scenarios.

Capital risk in 2023

Our objective in the management of capital is to maintain appropriate levels of capital to support our business strategy and meet our regulatory requirements.

The bank manages its capital in accordance with the principles contained within its capital management policy and its annual capital plan, which include the results of ICAAP. The bank determines an optimal amount and composition of regulatory and working capital required to support planned business growth, taking into consideration economic capital and the costs of capital, accepted market practices and the volatility of capital and business levels in its financial resource plan.

The bank remained within its required regulatory capital limits throughout 2023.

The sale of HSBC Bank Canada and its subsidiaries to Royal Bank of Canada was approved by the Minister of Finance on 21 December 2023 and is expected to close, subject to customary closing conditions, on 28 March 2024. In consideration of the transaction, no dividends were declared or paid on HSBC Bank Canada common shares during 2023.

As part of the bank's Tier 2 capital, an $1bn subordinated debt owned by HSBC Overseas Holdings (UK) Limited is subjected to straight-line amortization in the final five years prior to maturity in 2028. Amortization of the instrument has been reported for regulatory purpose of total capital ratio of the bank in December 2023.

Basel III capital and leverage rules

The bank assesses capital adequacy against standards established in guidelines issued by OSFI in accordance with the Basel III capital adequacy framework.

The Basel III capital adequacy framework significantly revised the definitions of regulatory capital and introduced the requirement that all regulatory capital must be able to absorb losses in a failed financial institution.

The framework emphasizes common equity as the predominant component of tier 1 capital by adding a minimum common equity tier 1 ('CET1') capital ratio. The Basel III rules also require institutions to hold capital buffers designed to avoid breaches of minimum regulatory requirements during periods of stress.

OSFI has established capital targets (including the capital conservation buffer) that all institutions are expected to attain or exceed, as follows: CET1 capital ratio of 7.0%, tier 1 capital ratio of 8.5% and total capital ratio of 10.5%.

In the second quarter of 2023, the bank implemented the Basel III reforms according to the final Capital Adequacy Requirement ('CAR') Guideline issued by OSFI, apart from the chapters related to market risk and credit valuation adjustment ('CVA') which will take effect in the first quarter of 2024.

Regulatory capital

Total regulatory capital

		Year ended	
	Footnotes	**31 Dec 2023**	31 Dec 2022
		$m	$m
Gross common equity	*1*	**5,935**	4,818
Regulatory adjustments		**246**	380
Common equity tier 1 capital	*2*	**6,181**	5,198
Additional tier 1 eligible capital	*3*	**1,100**	1,100
Tier 1 capital		**7,281**	6,298
Tier 2 capital	*2, 4*	**808**	1,039
Total capital		**8,089**	7,337

1. *Includes common share capital, retained earnings and accumulated other comprehensive income.*
2. *As part of the transitional arrangements, effective 31 March 2020, a portion of allowances that would otherwise be included in tier 2 capital has instead been included in common equity tier 1 ('CET 1') capital as at 31 December 2022.*
3. *Includes preferred shares.*
4. *Includes subordinated debt of $1bn maturing in the fourth quarter of 2028. With over 4 years and less than 5 years to maturity as at 31 December 2023, only 80% of the outstanding balance can be included according to the amortization schedule provided in the CAR Guideline.*

Regulatory capital and leverage ratios

Risk-weighted assets, actual and minimum regulatory capital and leverage ratios

		At	
	Footnotes	**31 Dec 2023**	31 Dec 2022
		$m	$m
Risk-weighted assets ('RWA')	*1, 2*	**43,416**	44,656
		%	%
Actual regulatory capital ratios	*4*		
– common equity tier 1 capital ratio		**14.2%**	11.6%
– tier 1 capital ratio		**16.8%**	14.1%
– total capital ratio	*3*	**18.6%**	16.4%
– leverage ratio	*5, 6*	**5.5%**	4.7%
Regulatory capital requirements	*7*		
– minimum common equity tier 1 capital ratio		**7.0%**	7.0%
– minimum tier 1 capital ratio		**8.5%**	8.5%
– minimum total capital ratio		**10.5%**	10.5%
– minimum leverage ratio		**3.0%**	3.0%

1. *RWA represent the amounts by which assets are adjusted by risk-weight factors to reflect the riskiness of on and off-balance sheet exposures in accordance with the Capital Adequacy Requirements ('CAR') Guideline issued by OSFI. Certain assets are not risk-weighted, but deducted from capital.*
2. *In April 2020, OSFI announced certain regulatory flexibility measures to support COVID-19 efforts in light of the current evolving situation. Effective 31 March 2020, OSFI lowered the capital floor factor from 75% to 70%. This floor factor has been in place until the second quarter 2023 when the capital floor of 65% was implemented as part of the Basel III Reforms.*
3. *Included the amortization of a Tier 2 capital instrument starting from December 2023.*
4. *The common equity tier 1, tier 1, and total capital ratios are calculated as the respective capital base divided by risk-weighted assets, in accordance with CAR Guideline issued by OSFI.*
5. *Leverage Ratio is calculated as tier 1 capital divided by leverage exposure measures, in accordance with Leverage Requirements ('LR') Guideline issued by OSFI. Leverage exposure measures represent the sum of on-balance sheet assets and specified off-balance sheet items.*
6. *Starting from 1 April 2023, the temporary exclusion of central bank reserves from leverage ratio exposure measures was unwound.*
7. *OSFI target capital ratios including mandated capital conservation buffer.*

At 31 December 2023, our common equity tier 1 ('CET1') capital ratio increased to 14.2% from 11.6% at 31 December 2022, reflecting an increase in CET1 capital of $983m and a reduction of RWA of $1.2bn. The increase in CET1 capital was mainly from capital generation through profits, net of preferred share dividends.

Outstanding shares and dividends

Outstanding shares and dividends declared and paid on our shares in each of the last three years were as follows:

		Year ended 31 December 2023			Year ended 31 December 2022			Year ended 31 December 2021		
	Footnotes	**Dividend**	**Number of issued shares**	**Carrying value**	Dividend	Number of issued shares	Carrying value	Dividend	Number of issued shares	Carrying value
		$ per share	**'000's**	**$m**	$ per share	'000's	$m	$ per share	'000's	$m
Common shares	1, 2,	**—**	**548,668**	**1,125**	0.69259	548,668	1,125	0.79283	548,668	1,725
Class 1 preferred shares	3									
– Series H		**1.88630**	**20,000**	**500**	1.08412	20,000	500	0.76505	20,000	500
– Series I	4	**—**	**—**	**—**	1.15000	—	—	1.15000	14,000	350
– Series J	4	**1.88880**	**14,000**	**350**	—	14,000	350	—	—	—
– Series K		**1.36252**	**10,000**	**250**	1.36252	10,000	250	1.36252	10,000	250

1. *Dividends recorded in the financial statements are dividends per ordinary share declared in a year and are not dividends in respect of, or for, that year.*
2. *On 15 March 2022, the bank returned $600m of common share capital to HSBC Overseas Holdings (UK) Limited; no changes occurred in the number of issued shares.*
3. *Cash dividends on preferred shares are non-cumulative and are payable quarterly.*
4. *The holder of the preferred shares Series I exercised their option to convert the preferred shares Series I into preferred shares Series J on 31 December 2022 in accordance with their terms.*

Dividends declared in 2023

During the year, the bank declared $78m in dividends on all series of HSBC Bank Canada Class 1 preferred shares and paid such dividends in accordance with their terms. No dividends were declared or paid on HSBC Bank Canada common shares in 2023.

Deemed dividend recorded in 2023

During the third quarter of 2023, the bank recorded a deemed dividend of $4m to HSBC Holdings. Further details can be found in the 'Related party transactions' section of the MD&A.

Dividends declared in 2024

At this time, no dividends have been declared on HSBC Bank Canada shares during the first quarter of 2024.

Interest rate risk in the banking book in 2023

Interest rate risk in the banking book is the risk of an adverse impact to earnings or capital due to changes in market interest rates. It is generated by our non-traded assets and liabilities, specifically loans, deposits and financial instruments that are not held for trading intent.

There are three main sub-categories of structural interest rate risk. Interest rate mismatch risk arises when there are differences in term to maturity or repricing of our assets and liabilities, both on- and off-balance sheet. Basis risk arises from the relative changes in interest rates for financial instruments that have similar tenors but are priced using different interest rate indices. Option risk arises from optionality embedded in product features which allow customers to alter cash flows, such as scheduled maturities or repricing dates.

The risk is measured based on contractual re-pricing, as well as incorporating embedded optionality of early redemption, prepayment or re-pricing (such as redeemable deposit products, mortgages with prepayment options and fixed rate mortgage commitments). The risk metrics incorporate the effect of interest rate behaviouralization, managed rate product pricing assumptions and customer behaviour, including prepayment of mortgages or customer migration from non-interest-bearing to interest-bearing deposit accounts under the specific interest rate scenarios. Non-maturity products are laddered out over an assumed maturity profile, based on historical behaviour.

A number of assumptions are used in modelling the risk metrics, derived using models or judgmental non-modelled approaches. Key assumptions employed include fixed-rate pipeline take up rates, early prepayment speeds on fixed-rate loans and managed rate pass-on assumptions. Treasury Risk Management actively review and challenge the justification of these assumptions.

The following table shows structural interest rate sensitivities; earnings at risk is the impact over the next 12 months whereas economic value of equity is a balance sheet valuation on a run off basis. At 31 December 2023, an immediate +100 basis points shock would have a negative impact to the bank's economic value of equity of $108m, down from $121m last year. An immediate -100 basis points shock at 31 December 2023 would have a negative impact to earnings of $128m, down from $172m last year.

Sensitivity of structural interest rate risk in the non-trading portfolio

(Before-tax impact resulting from an immediate and sustained shift in interest rates):

	Year ended			
	31 Dec 2023		31 Dec 2022	
	Economic value of equity	**Earnings at risk**	Economic value of equity	Earnings at risk
	$m	**$m**	$m	$m
100 bps increase	**(108)**	**132**	(121)	157
100 bps decrease	**95**	**(128)**	108	(172)

Non-trading Value at Risk*

Non-trading Value at Risk ('VaR') portfolios comprise of positions that primarily arise from the interest rate management of our retail and commercial banking assets and liabilities, financial investments measured at fair value through other comprehensive income, and debt instruments measured at amortized cost.

For further details of the VaR models, refer to the 'Market risk' section on page 51 of the MD&A.

The non-trading VaR for 2023 is shown in the table below.

Non-trading VaR, 99% 1 day*

	Interest rate	Credit Spread	Portfolio diversification[1]	Total[2]
	$m	$m	$m	$m
Balance at 31 Dec 2023	**16.0**	**22.2**	**(6.5)**	**31.7**
Average	**22.6**	**26.1**	**(6.2)**	**42.5**
Minimum	**14.7**	**21.7**	**—**	**30.4**
Maximum	**35.1**	**31.6**	**—**	**55.6**
Balance at 31 Dec 2022	16.2	29.2	(5.6)	39.8
Average	13.2	27.1	(9.8)	30.5
Minimum	4.7	16.8	—	17.8
Maximum	17.2	30.9	—	41.2

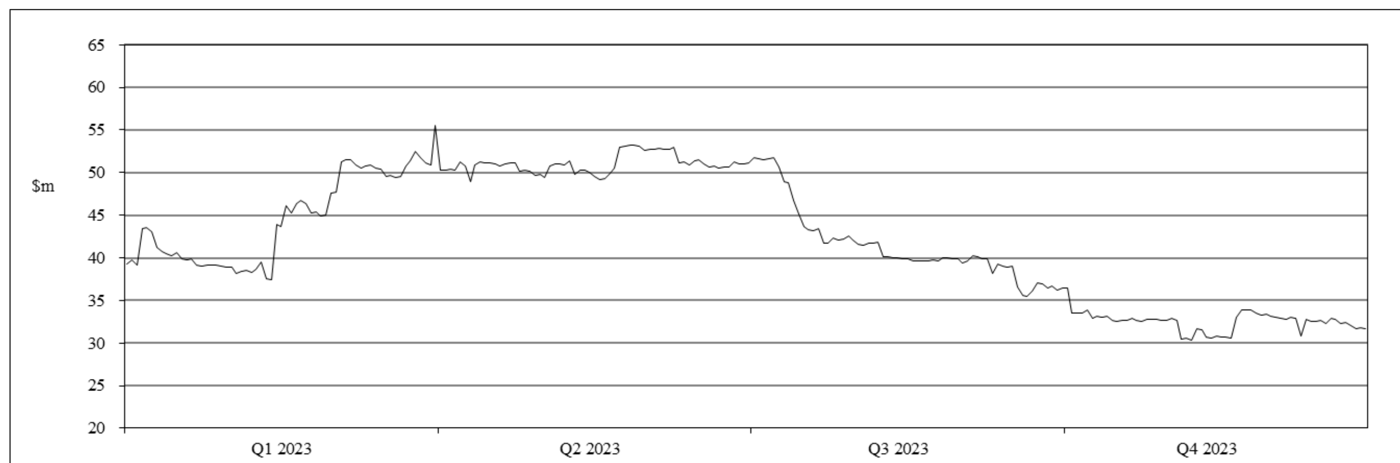
1. *Portfolio diversification is the market risk dispersion effect of holding a portfolio containing different risk types. It represents the reduction in unsystematic market risk that occurs when combining a number of different risk types – such as interest rate and credit spreads – together in one portfolio. It is measured as the difference between the sum of the VaR by individual risk type and the combined total VaR. A negative number represents the benefit of portfolio diversification. As the maximum and minimum occurs on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit for these measures*
2. *The total VaR is non-additive across risk types due to diversification effects.*

Value at Risk of non-trading portfolios

The VaR for non-trading activity at 31 December 2023 was lower than at 31 December 2022. The decrease was mainly due to lower risk exposures in the portfolio at the end of December 2023. However, average VaR was higher driven by the increase in average interest rate VaR due to higher levels of volatility in 2023. Non-trading VaR includes the interest rate risk in the banking book transferred to and managed by Markets Treasury and the exposures generated by the portfolio of high-quality liquid assets held by Markets Treasury to meet liquidity requirements.

The daily levels of total non-trading VaR in 2023 are set out in the graph below.

Daily non-trading VaR portfolios, 99% 1 day[1]



1. *The trending decrease in the third and fourth quarters of 2023 was due to the reduction in interest rate risk.*

Market Risk

Market risk is the risk of adverse financial impact on trading activities arising from changes in market parameters such as interest rates, foreign exchange rates, asset prices, volatilities and credit spreads. Exposure to market risk is separated into two portfolios: trading portfolios and non-trading portfolios.

Market risk management

Market risk management is independent of the business and acts as the second line of defense who oversees the market risk of the bank. The objective of our risk management policies and measurement techniques is to manage and control market risk exposures to optimize return on risk while maintaining a market profile consistent with our established risk appetite.

Market risk is managed and controlled through limits approved by the RMM and by the Board as well as centrally by HSBC Group Risk Management, on an annual basis at minimum. We set risk limits for each of our trading operations dependent upon the size, financial and capital resources of the operations, market liquidity of the instruments traded, business plan, experience and track record of management and dealers, internal audit ratings, support function resources and support systems. Traded risk function enforces the controls around trading in permissible instruments approved for each site as well as changes that follow completion of the new product approval process. Traded risk also restricts trading in the more complex derivative products to offices with appropriate levels of product expertise and robust control systems.

For a discussion of market risk in non-trading portfolios, refer to the 'Non-trading VaR' section on page 50 of the MD&A.

We use a range of tools to monitor and limit market risk exposures including sensitivity analysis, Value at Risk ('VaR'), maximum loss limits and issuer limits.

Value at Risk*

VaR is a technique for estimating potential losses on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence. The use of VaR is integrated into market risk management and calculated for all trading and non-trading portfolios to have a complete picture of risk.

The VaR models used are predominantly based on historical simulation that incorporate the following features:

- potential market movements are calculated with reference to data from the past two years;
- historical market rates and prices are calculated with reference to foreign exchange rates, credit spreads, and interest rates; and
- calculations to a 99% confidence level using a one-day holding period.

The models also incorporate the effect of option features on the underlying exposures. The nature of the VaR models means that an increase in observed market volatility will lead to an increase in VaR without any changes in the underlying positions.

Although a valuable guide to risk, VaR is used with awareness of its limitations. For example:

- The use of historical data as a proxy for estimating future events may not encompass all potential market events, particularly those that are extreme in nature.
- The use of a one-day holding period for risk management purposes of trading and non-trading books assumes that this short period is sufficient to hedge or liquidate all positions.
- The use of a 99% confidence level, by definition, does not take into account losses that might occur beyond this level of confidence.
- VaR is calculated on the basis of exposures outstanding at the close of business and therefore does not necessarily reflect intra-day exposures.

Trading portfolios

Trading portfolios comprise positions held for client servicing and market-making, with the intention of short-term resale and/or to hedge risks resulting from such positions.

Value at Risk of trading portfolios

We continued to manage market risk prudently during 2023. Sensitivity exposures and VaR remained within appetite as the business pursued its core market-making activity in support of our customers. Interest rate risk was the major driver for VaR.

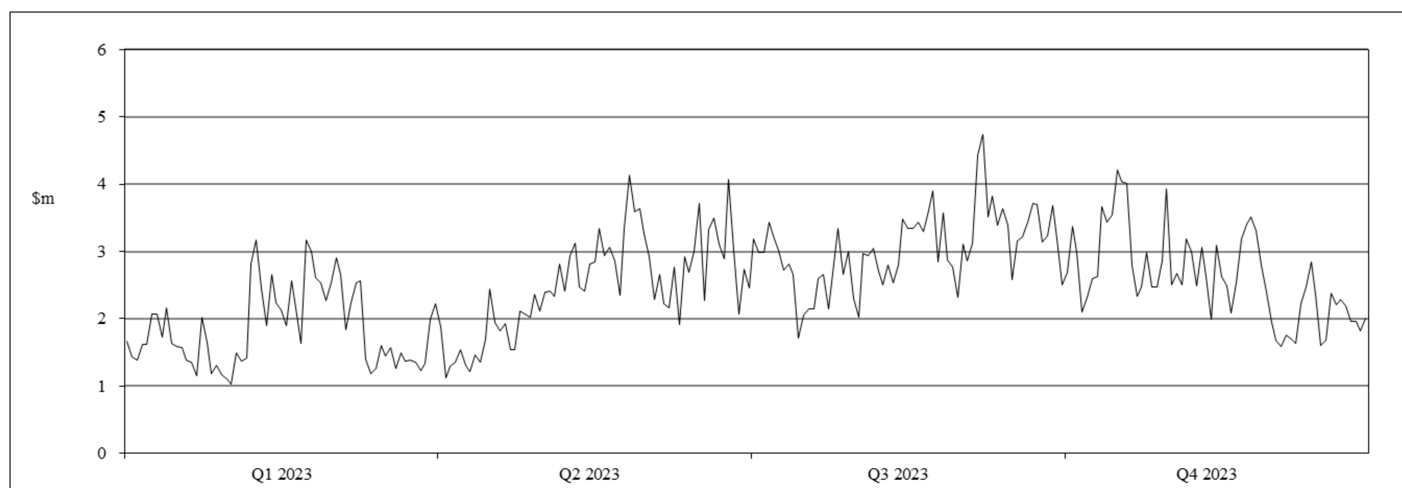
Trading VaR was higher during 2023 compared to the previous year due to higher interest rate volatility.

Trading VaR, 99% 1 day (by risk type)*[1]

	Footnote	Foreign exchange and commodity	Interest rate	Equity	Credit spread	Portfolio diversification[2]	Total[3]
		$m	$m	$m	$m	$m	$m
January - December 2023							
At year-end		**—**	**1.9**	**—**	**0.4**	**(0.3)**	**2.0**
Average		**—**	**2.4**	**—**	**0.7**	**(0.6)**	**2.5**
Minimum		**—**	**0.9**	**—**	**0.3**		**1.0**
Maximum		**0.1**	**4.4**	**—**	**1.5**		**4.7**
January - December 2022							
At year-end		—	1.0	—	0.9	(0.5)	1.4
Average		—	1.2	—	0.8	(0.5)	1.5
Minimum		—	0.5	—	0.2		0.5
Maximum		0.1	3.3	—	2.1		4.1

1. *Trading portfolios comprise of positions arising from the market-making and customer-driven positions.*
2. *Portfolio diversification is the market risk dispersion effect of holding a portfolio containing different risk types. It represents the reduction in unsystematic market risk that occurs when combining a number of different risk types - such as interest rate and foreign exchange - together in one portfolio. It is measured as the difference between the sum of the VaR by individual risk type and the combined total VaR. A negative number represents the benefit of portfolio diversification. As the maximum and minimum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit for these measures.*
3. *The total VaR is non-additive across risk types due to diversification effects.*

Daily trading VaR, 99% 1 day



Climate risk

Overview

Climate-related risk relates to the financial and non-financial impacts that may arise as a result of climate change and the move to a lower carbon economy. Climate change can impact HSBC through a number of channels:

- Physical risk, which arises from increasing severity and/or frequency of weather events, such as floods and hurricanes, or chronic shifts in weather patterns.
- Transition risk, which arises from moving to a lower carbon economy, including changes in government or public policy, technology and end demand.

We are affected by climate-related risks either directly or indirectly through our relationships with our customers. Any detrimental impact to our customers from physical and transitional climate risk could result in credit losses on our loan book or losses on trading assets. We may also be impacted by reputational concerns related to the action or inaction of our customers.

We may also face direct exposure to physical impacts of climate change, which could negatively affect our day-to-day operations and may lead to operational losses.

Our response, including supporting our customers and strengthening our own resilience, to climate-related risks may also give rise to thematic risks that may result in reputational damage and regulatory and/or litigation issues, with potential negative impacts to our revenue generating ability. These thematic risks include:

- Net zero alignment risk, which arises from HSBC failing to meet its commitments or external expectations related to net zero due to inadequate ambition and/or plans, poor execution, or inability to adapt to changes in the external environment.
- Greenwashing risk, which arises from the act of knowingly or unknowingly making inaccurate, unclear, misleading or unsubstantiated claims regarding sustainability to our stakeholders.

Climate risk management

Key developments in 2023

We continue to integrate climate risk into the Risk Management Framework; develop quantitative risk appetite metrics to support our qualitative statement; and enhance data quality to better articulate the impact of climate change risks on the bank. Leveraging HSBC Group resources, we continue to build capabilities to identify and assess physical and transition risks and impacts in our retail and corporate portfolios and operations. For example:

- We continue to enhance risk appetite metrics and supporting management information to monitor our physical and transition risk exposures.
- We continue to enhance data collection and analysis to improve our understanding of our exposure to the highest transition risk sectors in our corporate portfolios. We also continue to engage proactively with our customers to understand and support their low-carbon strategies, where applicable.
- We continue to make progress collecting and calibrating data to understand our physical risk exposure in our residential real estate lending portfolio. We strengthened processes to monitor residential mortgage borrowers' insurance coverage for properties located in higher physical risk areas.
- We continue to enhance our sustainable finance governance, product, and marketing management processes to prevent the risk of greenwashing.
- We continue to deliver targeted training to raise awareness and understanding of climate-related risks and impacts.
- We engaged with regulators and participated in industry working groups to assess readiness to meet regulatory expectations such as the Office of the Superintendent of Financial Institutions ('OSFI') Guideline B-15 Climate Risk Management.

While we have made progress in enhancing our climate risk management, more work is needed to build our capabilities. Climate-related risks are complex and impacts are often idiosyncratic, which require new tools and data. Methodologies to measure and analyze climate-related risks and impacts are nascent and exploratory while challenges remain with data availability and granularity.

Governance and structure

The Climate Risk Oversight Forum ('CROF') oversees climate risk management activities. Risk appetite and key escalations for climate risk are reported to the Risk Management Meeting ('RMM') chaired by the Chief Risk Officer.

Key risk management processes

Our climate risk management approach is aligned to our enterprise-wide risk management framework and three lines of defense model, which sets out how we identify, assess and manage our risks. This approach provides senior management and the Board with oversight of our key climate risks.

Climate-related risks can manifest through existing risks such as credit, market, liquidity, operational risks; therefore, we continue to integrate climate-related risks within the risk management framework by aligning with regulatory expectations and HSBC Group initiatives to enhance policies, processes, and controls for existing risks where appropriate. These enhancements include developing and implementing climate risk metrics, methodologies and updating standards to address climate risk drivers and transmission channels.

Resilience risk

Overview

Resilience risk is the risk of sustained and significant business disruption from execution, delivery, physical security or safety events, causing the inability to provide critical services to our customers, affiliates, and counterparties.

Resilience risk management

Key developments in 2023

During the year, we carried out a number of initiatives to keep pace with geopolitical, regulatory and technology changes and to strengthen the management of resilience risk:

- We focused on enhancing our understanding of our risk and control environment, by updating our risk taxonomy and control libraries, and refreshing risk and control assessments.
- We have strengthened the way third party risk is overseen and managed across all non-financial risks and have enhanced our processes, framework and reporting capabilities to improve the control and oversight of our material third parties by our global businesses, functions and regions.
- We provided analysis and easy-to-access risk and control information and metrics to enable management to focus on non-financial risks in their decision making and appetite setting.
- We further strengthened our non-financial risk governance and senior leadership, and improved our coverage and risk steward oversight for data privacy and change execution.

We prioritize our efforts on material risks and areas undergoing strategic growth, aligning our location strategy to this need.

Governance and structure

The Operational and Resilience Risk target operating model provides a globally consistent view across resilience risks, strengthening our risk management oversight while operating effectively as part of a simplified non-financial risk structure. We view resilience risk across seven sub-risk types related to: third party risk; technology and cyber security risk; transaction processing; business interruption and incident risk; data risk; change execution risk; and facilities availability, safety and security. Risk appetite and key escalations for resilience risk are reported locally to the Canadian Risk Management Meeting and globally to the Non-Financial Risk Management Board, chaired by the Group Chief Risk and Compliance Officer.

Key risk management processes

Operational resilience is our ability to anticipate, prevent, adapt, respond to, recover and learn from operational disruption while minimizing customer and market impact. Resilience is determined by assessing whether we are able to continue to provide our important business services, within an agreed level. This is achieved via day-to-day oversight and periodic and ongoing assurance, such as deep dive reviews and controls testing, which may result in challenges being raised to the business by risk stewards. Further challenge is also raised in the form of quarterly risk steward opinion papers to formal governance. We accept we will not be able to prevent all disruption but we prioritize investment to continually improve the response and recovery strategies for our most important business services.

Business operations continuity

We continue operating in business as usual environment, which includes a strong east/west redundancy and hybrid working for non-customer facing staff.

Regulatory compliance risk

Overview

Regulatory compliance risk is the risk associated with breaching our duty to clients and other counterparties, inappropriate market conduct and breaching related financial services regulatory standards. Regulatory compliance risk arises from the failure to observe relevant laws, codes, rules and regulations and can manifest itself in poor market or customer outcomes and lead to fines, penalties and reputational damage to our business.

Regulatory compliance risk management

Key developments in 2023

The dedicated program to embed our updated purpose-led conduct approach has concluded. Work to review the mapping of applicable regulations to our risks and controls was completed in 2023 alongside the adoption of new tooling to support enterprise-wide horizon scanning for new regulatory obligations and manage our regulatory reporting inventories. Climate risk has been integrated into regulatory compliance policies and processes, with enhancements made to the product governance framework and controls in order to ensure the effective consideration of climate – and in particular greenwashing – risks.

Governance and structure

Regulatory Compliance reports to the Chief Compliance Officer and provides independent, objective oversight and challenge, and promotes a compliance-orientated culture that supports the business in delivering fair outcomes for customers, maintaining the integrity of financial markets and achieving our strategic objectives. Regulatory Compliance escalates into the RMM chaired by the Chief Risk Officer and to the ARC.

Key risk management processes

Regulatory Compliance is responsible for ensuring adherence to global policies and then setting local policies, standards and risk appetite to guide the management of regulatory compliance. It also devises clear frameworks and support processes to protect against regulatory compliance and conduct risks. Policies and procedures are updated as regulatory expectations are revised and otherwise reviewed annually. They require the prompt identification and escalation of any actual or potential regulatory breach. Relevant reportable events are escalated to the RMM and the ARC committee of the Board.

Financial crime risk

Overview

Financial crime risk is the risk that HSBC’s products and services will be exploited for criminal activity. This includes fraud, bribery and corruption, tax evasion, sanctions and export control violations, money laundering, terrorist financing and proliferation financing. Financial crime risk arises from day-to-day banking operations involving customers, third parties and employees.

Financial crime and fraud risk management

Key developments in 2023

We regularly review the effectiveness of our financial crime risk management framework, which includes continued consideration of the complex and dynamic nature of sanctions compliance and export control risk. Russia has continued to be the primary target of western sanctions in 2023, with greater focus on enforcing sanctions and limiting methods of sanctions evasion.

We also continued to make progress with several key financial crime risk management initiatives, including:

- We successfully introduced the required changes to our transaction screening capability to accommodate the global change to payment systems formatting under International Standards Organization (‘ISO’) 20022 requirements.
- We enhanced our HSBC Canada Correspondent Banking Transaction Monitoring capability.
- We focused on strengthening our framework to adapt and improve detection of emerging fraud typologies where fraudsters leverage social engineering in a digital age to target our customers.
- We have adapted and implemented all requirements under the updated Proceeds of Crime Money Laundering and Terrorist Financing Act (‘PCMLTFA’) and are engaged on systems changes from Financial Transactions and Reports Analysis Centre of Canada (‘FINTRAC’) in support of these updates.
- We have undertaken staff awareness / training for the new regulatory requirements targeted at business sectors who may bank with HBCA (including money service businesses) and customer behaviours (structuring transactions to avoid regulatory reporting thresholds).
- We have implemented all local regulatory changes and adhered to our globally standardized policy changes related to sanctions, and continue to monitor for upcoming regulatory changes which will enhance the Canadian regulatory oversight for sanctions compliance, including additional sanctions regulatory reporting.

Governance and structure

The structure of the Financial Crime function remained unchanged in 2023. Financial Crime reports to the Chief Compliance Officer / Chief Anti-Money Laundering Officer and provides independent, objective oversight and challenge, and promotes a compliance-orientated culture that supports the business in delivering fair outcomes for customers, maintaining the integrity of financial markets and achieving our strategic objectives. Financial Crime escalates into the RMM chaired by the Chief Risk Officer and to the ARC Committee of the Board.

Key risk management processes

We will not tolerate knowingly conducting business with individuals or entities believed to be engaged in criminal activity. We require everybody in HSBC to play their role in maintaining effective systems and controls to prevent and detect financial crime. Where we believe we have identified suspected criminal activity or vulnerabilities in our control framework, we will take appropriate mitigating action. We manage financial crime risk because it is the right thing to do to protect our customers, shareholders, staff, the communities in which we operate, as well as the integrity of the financial system on which we all rely. We operate in a highly regulated industry in which these same policy goals are codified in law and regulation. We are committed to complying with the laws and regulations, and applying a consistently high financial crime standard. We continue to assess the effectiveness of our end-to-end financial crime risk management framework, and invest in enhancing our operational control capabilities and technology solutions to deter and detect criminal activity.

HBCA ensures continued effective management of financial crime risk through ongoing strengthening of our financial crime risk taxonomy, including enhancing our monitoring capabilities through technology deployments. We adopted more targeted metrics for our ongoing governance and reporting. We are committed to working in partnership with the wider industry and the public sector in managing financial crime risk and we participate in numerous public-private partnerships and information sharing initiatives.

Model Risk

Overview

Model risk is the potential for adverse consequences from business decisions informed by models, which can be exacerbated by errors in methodology, design or the way they are used. Model risk arises in both financial and non-financial contexts whenever business decision making includes reliance on models.

Key developments in 2023

In 2023, we continued to make improvements in our model risk management processes amid regulatory changes in model requirements.

Initiatives during the year included:

- Our model owners in businesses and functions fully embedded the requirements included in the version three update to the model risk policy and standards introduced at the beginning of 2023.
- Basel III Retail – Probability of Default ('PD'), Exposure at Default ('EAD') and Loss Given Default ('LGD') models that were redeveloped and validated in 2022, went live in the first half of 2023. The new Basel III Wholesale Exposure at Default ('EAD') which was developed and validated in 2022 went live in April 2023. Additionally, the Fundamental Review of the Trading Book standardized approach ('FRTB SA') for market risk was assessed against OSFI requirements, implemented and validated during 2023 with submission of the bank's FRTB self-assessment to the regulator at the end of June. OSFI provided their approval in December 2023 and the model went live in January 2024.
- Changes in forward-looking macro-economic drivers post-pandemic and other world events continued to impact the performance of the IFRS 9 models that are used to calculate expected credit losses. As a result, greater reliance has been placed on comparison with benchmark models where available and management underlays and overlays based on business judgement to derive expected credit losses.
- A second line review and challenge process of these adjustments was fully embedded in the 2023 cycle.

Governance and structure

Model Risk Management is a function in its own right within the Risk structure. The Head of Model Risk Management reports to the Chief Risk Officer.

Key risk management processes

We use a variety of modelling approaches, including regression, simulation, sampling, machine learning and judgmental scorecards for a range of business applications, in activities such as customer selection, product pricing, financial crime transaction monitoring, creditworthiness evaluation and financial reporting. Responsibility for managing model risk is delegated from the RMM to the Model Risk Committee chaired by the Chief Risk Officer. The committee regularly reviews our model risk management policies and procedures and requires the first line of defence to demonstrate comprehensive and effective controls based on a library of model risk controls provided by Model Risk Management.

Model Risk Management also reports on model risk to senior management on a regular basis through the use of the risk map including top and emerging risks, risk appetite metrics and the new model exceptions management and reporting process introduced and embedded in 2023.

We regularly review the effectiveness of these processes, including the model oversight committee structure, to help ensure appropriate understanding and ownership of model risk is embedded in the businesses and functions. All open OSFI issues were closed through 2023 with the introduction of two additional quarterly processes: a second line performance deterioration tracking process and a model exceptions management and reporting process.

Factors that may affect future results

The 'Risk' section of the MD&A describes the most significant risks to which the bank is exposed and if not managed appropriately could have a material impact on our future financial results. This section outlines additional factors which may affect future financial results. Please be aware that the risks discussed below, many of which are out of our control, are not exhaustive and there may be other factors that could also affect our results.

General economic and market conditions

Factors such as the general health of capital and/or credit markets, including liquidity, level of activity, volatility and stability, could have a material impact on our business. As well, interest rates, foreign exchange rates, consumer saving and spending, housing prices, consumer borrowing and repayment, business investment, government spending and the rate of inflation affect the business and economic environment in which we operate.

In addition, the financial services industry is characterized by interrelations among financial services companies. As a result, defaults by other financial services companies could adversely affect our earnings. Given the interconnectedness of global financial markets and the importance of trade flows, changes in the global economic and political environment could affect the pace of economic growth in Canada.

Fiscal and monetary policies

Our earnings are affected by fiscal, monetary and economic policies that are adopted by Canadian regulatory authorities. Such policies can have the effect of increasing or reducing competition and uncertainty in the markets. Such policies may also adversely affect our customers and counterparties, causing a greater risk of default by these customers and counterparties. In addition, expectations in the bond and money markets about inflation and central bank monetary policy have an impact on the level of interest rates. Changes in market expectations and monetary policy are difficult to anticipate and predict. Fluctuations in interest rates that result from these changes can have an impact on our earnings. Future changes to such policies will directly impact our earnings.

Changes in laws, regulations and approach to supervision

Regulators in Canada are actively considering legislation on a number of fronts, including consumer protection, data protection and privacy, capital markets activities, anti-money laundering, and the oversight and strengthening of risk management. Regulations are in place to protect our customers and the public interest. Considerable changes have been made to laws and regulations that relate to the financial services industry, including changes related to capital and liquidity requirements. Changes in laws and regulations, including their interpretation and application, and changes in approaches to supervision could adversely affect our earnings.

Failure to comply with laws and regulations could result in sanctions, financial penalties and/or reputational damage that could adversely affect our strategic flexibility and earnings.

Level of competition and disruptive technology

The level of competition among financial services companies is high. Customer loyalty and retention can be influenced by a number of factors, including service levels, prices for products or services, our reputation and the actions of our competitors. Changes in these factors or any subsequent loss of market share could adversely affect our earnings. Furthermore, non-financial companies (such as financial technology ('fintech') companies) have increasingly been

offering services traditionally provided by banks. While this presents a number of opportunities that we are actively engaging in, there is also a risk that it could disrupt financial institutions' traditional business model.

Cyber threat and unauthorized access to systems

We and other organizations continue to operate in an increasingly hostile cyber threat environment, which requires ongoing investment in business and technical controls to defend against these threats. Key threats include unauthorized access to online customer accounts, advanced malware attacks and attacks on third party suppliers and security vulnerabilities being exploited.

Changes to our credit rating

Credit ratings are important to our ability to raise both capital and funding to support our business operations. Maintaining strong credit ratings allows us to access the capital markets at competitive pricing. Should our credit ratings experience a material downgrade, our costs of funding would likely increase significantly and our access to funding and capital through capital markets could be reduced.

IBOR transition

Interbank offered rates ('IBORs') have been used extensively to set interest rates on different types of financial transactions and for valuation purposes, risk measurement and performance benchmarking.

Following the UK's Financial Conduct Authority ('FCA') announcement in July 2017 that it would no longer continue to persuade, or require panel banks to submit rates for the London interbank offered rate ('LIBOR') after 2021, and ICE Benchmark Administration Limited ('IBA') announcement in March 2021 that it would cease publication of 26 of the 35 main LIBOR currency interest rate benchmark settings at the end of 2021, we have completed the transition of legacy contracts referencing the demised LIBORs and met client needs for new near risk-free replacement rates ('RFR') or alternative reference rates.

For the cessation of the publication of the US Dollar LIBOR from 30 June 2023, we completed the remediation of these contracts by the demise date.

On 16 May 2022, Refinitiv Benchmark Services (UK) Limited ('RBSL'), the administrator of the Canadian Dollar Offered Rate ('CDOR'), announced that it will cease the calculation and publication of CDOR after 28 June 2024. This decision aligns with the recommendation made by the Bank of Canada's Canadian Alternative Reference Rate ('CARR') working group in December 2021, and follows a broad public consultation from RBSL regarding that recommendation. Concurrently, OSFI published their expectation that Federally Regulated Financial Institutions transition all new derivatives and securities to an alternative benchmark rate by 30 June 2023 and all loan agreements by 28 June 2024. The CARR also established a stop sell date of 1 November 2023 for loans and bankers acceptances which reference CDOR.

The replacement rate, the reformed Canadian Overnight Repo Rate Average ('CORRA'), began its daily publishing on 15 June 2020. The bank has continued to expand its CORRA-linked product offerings throughout 2022 and 2023.

During 2023, we also continued to develop IT and RFR product capabilities, implemented supporting operational processes and engaged with our clients to discuss options for transitioning of their legacy contracts. The successful implementation of new processes and controls, and transition of contracts away from IBORs reduced the heightened financial and non-financial risks to which we are exposed. However, we remain exposed to legacy contracts that reference CDOR.

While we continue to track the transition of remaining contracts to alternative interest rate benchmarks, non-financial risks, while having diminished, continue to exist. We will remain vigilant until all contracts are fully transitioned.

Transition of legacy contracts

Our approach to transition CDOR contracts will follow dates recommended by regulatory guidance, and differ by product and business area. We will continue to communicate with our clients in a structured manner and be client led in the timing and nature of transition. It should be noted that as a result of the agreed sale of the bank to RBC expected to close on 28 March 2024, subject to customary closing conditions, full remediation of CDOR contracts will not be achieved ahead of the completion of the sale.

There were CDOR reported and US dollar LIBOR derivative exposures at 31 December 2023. The remaining US dollar LIBOR exposure relates to two customer interest rate derivatives, which converted from LIBOR to a synthetic LIBOR rate, and we will continue to actively reduce the exposure. We will also continue to migrate CDOR exposures through transitioning trades ahead of the expected CDOR demise date of 28 June 2024. This will be accomplished by working with our clients to determine their needs, and discuss legislative and specific approaches. Additionally, we are working with market participants, including clearing houses, to ensure we are able to transition contracts as the CDOR cessation date approaches.

For both the CDOR-linked derivative and loan portfolios, we continue to engage through the CARR to stay abreast of CORRA developments. On 11 January 2023, the CARR confirmed that it is developing 1- and 3-month term CORRA benchmarks. These were launched on 5 September 2023. We have begun work on a transition plan for term CORRA and based on market developments, the transition plan will address derivatives and loans linked to Banker's Acceptance ('BA') funding mechanism as it is inherently interconnected with CDOR.

With the cessation of CDOR in June 2024, it is expected that the BA will cease to exist as a money market instrument. On 16 January 2023, the Canadian Fixed-Income Forum ('CFIF') published a White Paper summarizing the key findings from a series of workshops held to collect feedback and discuss potential options of investors and other market participants to replace BAs. Following the stop sell instructions from the CARR, sale of new BAs ceased on 1 November 2023. However, customers are permitted to rollover existing BAs so long as there are no material amendments to the terms up until 28 June 2024.

During 2023, the bank transitioned its active CDOR-based hedge accounting relationships through a variety of methods. Further details are disclosed in the Derivatives note on page 86.

Financial instruments impacted by IBOR reform*

Interest Rate Benchmark Reform Phase 2, the amendments to IFRS Accounting Standards issued in August 2020, represents the second phase of the IASB's project on the effects of interest rate benchmark reform. The amendments address issues affecting financial statements when changes are made to contractual cash flows and hedging relationships.

Under these amendments, changes made to a financial instrument measured at other than fair value through profit or loss that are economically equivalent and required by interest rate benchmark reform, do not result in the derecognition or a change in the carrying amount of the financial instrument. Instead, they require the effective interest rate to be updated to reflect the change in the interest rate benchmark. In addition, hedge accounting will not be discontinued solely because of the replacement of the interest rate benchmark if the hedge meets other hedge accounting criteria.

	Financial instruments yet to transition to alternative benchmarks, by main benchmark	
	CDOR[1]	USD LIBOR
At 31 Dec 2023	**$m**	**$m**
Non-derivative financial assets	**2,050**	**—**
Non-derivative financial liabilities	**1,239**	**—**
Derivative notional contract amount	**106,515**	**—**
At 31 Dec 2022		
Non-derivative financial assets	1,786	1,579
Non-derivative financial liabilities	1,239	—
Derivative notional contract amount	98,779	6,527

1. *All CDOR financial assets are short-term draws pursuant to facilities that will expire before the cessation of CDOR, or that will be updated to ensure that customers have another loan reference rate to use for subsequent short-term draws. These amounts do not include BA facilities.*

The amounts in the above table provide an indication of the extent of the bank's exposure to IBOR benchmarks that expire after respective RFR cessation date, and which are yet to be replaced.

Agreed sale of HSBC Bank Canada

On 29 November 2022, the HSBC Group announced an agreement to sell its 100% equity stake in HSBC Bank Canada (and its subsidiaries) to Royal Bank of Canada ('RBC') for a purchase price of $13.5bn; as well as all the existing preferred shares and subordinated debt of HSBC Bank Canada held by the HSBC Group at par value. On 1 September 2023, the Competition Bureau of Canada issued its report and finding of no competition concerns regarding the proposed sale. On 21 December 2023, the Federal Minister of Finance approved the proposed acquisition, allowing the sale to proceed. We expect the sale to close on 28 March 2024, subject to customary closing conditions. Risks relating to the effective migration and transition of HSBC Bank Canada's customers, data, systems, processes and people to RBC will be managed through our established risk management programs and processes. As well, there are inherent acquisition risks where the timings could be subject to change depending on the extent of progress achieved on preparatory activities that may affect the close date.

Other risks

Other factors that may impact our results include changes in accounting standards, including their effect on our accounting policies, estimates and judgments; changes in tax rates, tax law and policy, and its interpretation by taxing authorities; risk of fraud by employees or others; unauthorized transactions by employees and human error.

Our success in delivering our strategic priorities and proactively managing the regulatory environment depends on the development and retention of our leadership and high-performing employees. The ability to continue to attract, develop and retain competent individuals in the highly competitive and active employment market continues to prove challenging.

Despite the contingency plans we have in place for resilience in the event of sustained and significant operational disruption, our ability to conduct business may be adversely affected by a disruption in the infrastructure that supports both our operations and the communities in which we do business, including but not limited to disruption caused by public health emergencies, pandemics, environmental disasters, terrorist acts and geopolitical events.

Statement of Management's Responsibility for Financial Information

The presentation and preparation of the annual consolidated financial statements, Management's Discussion and Analysis ('MD&A') and all other information in the *Annual Report and Accounts 2023* is the responsibility of the management of HSBC Bank Canada ('the bank'). The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards. The consolidated financial statements and information in the MD&A include amounts based on informed judgments and estimates of the expected effects of current events and transactions with appropriate consideration to materiality.

In meeting its responsibility for the reliability of financial information, management relies on comprehensive internal accounting, operating and system controls. The bank's overall controls include: an organizational structure providing for effective segregation of responsibilities; delegation of authority and personal accountability; written communication of policies and procedures of corporate conduct throughout the bank; careful selection and training of personnel; regular updating and application of written accounting and administrative policies and procedures necessary to ensure adequate internal control over transactions, assets and records; and a continuing program of extensive internal audit covering all aspects of the bank's operations. These controls are designed to provide reasonable assurance that financial records are reliable for preparing the consolidated financial statements and maintaining accountability for assets, that assets are safeguarded against unauthorized use or disposition, and that the bank is in compliance with all regulatory requirements. Management has a process in place to evaluate internal control over financial reporting based on the criteria established in the Internal Control - Integrated Framework (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission ('COSO').

At least once a year, the Office of the Superintendent of Financial Institutions Canada ('OSFI'), makes such examination and enquiry into the affairs of the bank as deemed necessary to ensure that the provisions of the Bank Act, having reference to the rights and interests of the depositors and the creditors of the bank, are being complied with and that the bank is in a sound financial condition.

The bank's Board of Directors oversees management's responsibilities for financial reporting through the Audit, Risk and Conduct Review Committee, which is composed of Directors who are not officers or employees of the bank. The Audit, Risk and Conduct Review Committee reviews the bank's interim and annual consolidated financial statements and MD&A, and recommends for approval by the Board of Directors. Other key responsibilities of the Audit, Risk and Conduct Review Committee include monitoring the bank's system of internal control, monitoring its compliance with legal and regulatory requirements, considering the appointment of the bank's independent external auditors and reviewing the qualifications, independence and performance of the bank's independent external auditors and internal auditors.

At 31 December 2023, we, the bank's Chief Executive Officer and Chief Financial Officer, have certified the design and effectiveness of our internal control over financial reporting as defined by the Canadian Securities Administrators under National Instrument 52-109 (Certification of Disclosure in Issuers' Annual and Interim Filings).

The bank's independent external auditors, the bank's Chief Internal Auditor and OSFI have full and free access to the Board of Directors and its committees to discuss audit, financial reporting and related matters.

Linda Seymour
President and Chief Executive Officer
HSBC Bank Canada

Daniel Hankinson
Chief Financial Officer
HSBC Bank Canada

Vancouver, Canada

9 February 2024

Our opinion

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of HSBC Bank Canada and its subsidiaries (together, the Bank) as at December 31, 2023 and 2022, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards ('IFRS Accounting Standards').

What we have audited

The Bank's consolidated financial statements comprise:

- the consolidated income statements for the years ended December 31, 2023 and 2022;
- the consolidated statements of comprehensive income for the years ended December 31, 2023 and 2022;
- the consolidated balance sheets as at December 31, 2023 and 2022;
- the consolidated statements of cash flows for the years ended December 31, 2023 and 2022;
- the consolidated statements of changes in equity for the years ended December 31, 2023 and 2022; and
- the notes to the consolidated financial statements, comprising material accounting policy information and other explanatory information.

Certain required disclosures have been presented elsewhere in the Management's Discussion and Analysis, rather than in the notes to the consolidated financial statements. These disclosures are cross-referenced from the consolidated financial statements and are identified as audited.

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report.

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

Independence

We are independent of the Bank in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada. We have fulfilled our other ethical responsibilities in accordance with these requirements.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Allowance for expected credit losses ("ECLs") on amortized cost financial assets

Key audit matter
Refer to note 2 Summary of material accounting policies (i) Impairment of amortized cost financial assets, FVOCI financial assets, certain loan commitments and financial guarantee contracts to the consolidated financial statements.
As at December 31, 2023 the allowance for ECLs on amortized cost financial assets (financial assets) was $319 million and represents management's estimate of ECLs on financial assets as at the consolidated balance sheet date.
Financial assets are considered to be Stage 1 from initial recognition until such time as a significant increase in credit risk occurs; financial assets are considered to be Stage 2 when a significant increase in credit risk has occurred; financial assets are Stage 3 when in default or otherwise considered to be credit impaired based on objective criteria for impairment. An allowance is recognised for ECLs over the next twelve months (or less, where the remaining life is less than twelve months) for Stage 1 financial assets and over the estimated life of the financial assets for Stage 2 and Stage 3 financial assets.
The ECL allowance calculation for Stage 1 and 2 is a complex calculation which involves a modeled estimate supplemented by management qualitative and quantitative judgmental adjustments (judgmental adjustments) not already considered in the modeled estimate. The modeled estimate requires significant management judgment because it involves a large number of related inputs and assumptions such as forward-looking macro-economic (macroeconomic) variables; forward looking global economic scenarios (economic scenarios) and scenario probability weights; probability of default; the assessment of whether a significant increase in credit risk has occurred; loss given default; and exposure at default.
Inflation, economic contraction and high interest rates, combined with an unstable geopolitical environment and the effects of global supply chain disruption continued to result in elevated levels of uncertainty during the year. Judgmental adjustments to the modeled estimate were considered by management to account for late breaking events, model and data limitations and deficiencies and expert credit judgments.
Management's estimation of ECLs for financial assets in Stage 3, involves significant management judgment when designing ECL scenarios for expected cash flows based on expected recoveries and in determining the key inputs and assumptions to calculate the estimated cash flows.

Allowance for expected credit losses ("ECLs") on amortized cost financial assets (continued)

Key audit matter (continued)

We considered this a key audit matter due to:

- Significant management judgment, when estimating the ECL allowance which includes:
  - For Stage 1 and 2 financial assets, selecting relevant macroeconomic variables, developing economic scenarios, determining related probability weights, probability of default, whether a significant increase in credit risk has occurred; loss given default, exposure at default and developing judgmental adjustments.
  - For Stage 3 financial assets, designing ECL scenarios for expected cash flows based on expected recoveries and in determining the key inputs and assumptions to calculate the estimated cash flows.
- Significant audit effort and high degree of auditor judgment was necessary to evaluate audit evidence as the estimation of the allowance for ECLs is complex and involves a large volume of data, interrelated inputs and assumptions, some of which are model-based.
- Audit effort involved the use of professionals with specialized skill and knowledge.

How our audit addressed the key audit matter

Our approach to addressing the matter included the following procedures, among others:

Tested the effectiveness of internal controls related to the allowance for ECLs on financial assets.

Tested how management determined the allowance for ECLs on financial assets in Stage 1 and 2 which included the following:

- Professionals with specialized skill and knowledge assisted in evaluating:
  - the appropriateness of the ECL models and
  - the reasonableness of the related assumptions and inputs such as the macroeconomic variables; the probability weighted economic scenarios; probability of default; whether a significant increase in credit risk has occurred, the loss given default and the exposure at default.
  - Evaluated management qualitative and quantitative judgmental adjustments, including the use of expert credit judgment.
- Tested the underlying data used in the models.

Tested how management determined the allowance for ECLs on financial assets in Stage 3 which included the following:

- Professionals with specialized skill and knowledge assisted in assessing the appropriateness of ECL scenarios for expected cash flows based on the expected recoveries and the reasonableness of key inputs and assumptions used in the estimation of future cash flows.
- Tested the underlying data used in the models.

Other information

Management is responsible for the other information. The other information comprises the Management's Discussion and Analysis and the information, other than the consolidated financial statements and our auditor's report thereon, included in the annual report and accounts.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRS Accounting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Bank's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Bank or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Bank's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Bank's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Bank to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Bank to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Ryan Leopold.

PricewaterhouseCoopers LLP

Chartered Professional Accountants

Vancouver, Canada

February 9, 2024

Consolidated Financial Statements

		Page
Consolidated income statement		**63**
Consolidated statement of comprehensive income		**64**
Consolidated balance sheet		**65**
Consolidated statement of cash flows		**66**
Consolidated statement of changes in equity		**67**
Notes on the Consolidated Financial Statements		
1	Basis of preparation	**68**
2	Summary of material accounting policies	**69**
3	Net fee income	**78**
4	Operating profit	**79**
5	Employee compensation and benefits	**79**
6	Share-based payments	**81**
7	Tax expense	**82**
8	Dividends	**83**
9	Segment analysis	**83**
10	Analysis of financial assets and liabilities by measurement basis	**85**
11	Trading assets	**86**
12	Derivatives	**86**
13	Financial investments	**91**
14	Property, plant and equipment	**92**
15	Investments in subsidiaries	**92**
16	Structured entity and other arrangements	**92**
17	Other assets	**93**
18	Goodwill and intangible assets	**93**
19	Trading liabilities	**94**
20	Debt securities in issue	**94**
21	Other liabilities	**94**
22	Subordinated liabilities	**94**
23	Fair values of financial instruments	**95**
24	Assets pledged, collateral received and assets transferred	**98**
25	Share capital	**99**
26	Contingent liabilities, contractual commitments and guarantees	**100**
27	Finance lease receivables and lease commitments	**100**
28	Related party transactions	**100**
29	Offsetting of financial assets and financial liabilities	**102**
30	Legal proceedings and regulatory matters	**102**
31	Events after the reporting period	**103**

Consolidated income statement

for the year ended 31 December

	Notes	2023 $m	2022 $m
Net interest income		**1,721**	1,634
– interest income		**5,234**	3,219
– interest expense		**(3,513)**	(1,585)
Net fee income	3	**753**	779
– fee income		**886**	891
– fee expense		**(133)**	(112)
Net income from financial instruments held for trading		**149**	99
Changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss		**—**	(2)
Gains less losses from financial investments		**6**	2
Other operating income		**25**	36
Total operating income		**2,654**	2,548
Change in expected credit losses and other credit impairment charges - charge		**(63)**	(110)
Net operating income	4	**2,591**	2,438
Employee compensation and benefits	5, 6	**(700)**	(607)
General and administrative expenses		**(586)**	(600)
Depreciation and impairment of property, plant and equipment		**(56)**	(63)
Amortization and impairment of intangible assets		**(128)**	(88)
Total operating expenses		**(1,470)**	(1,358)
Profit before income tax expense		**1,121**	1,080
Income tax expense	7	**(293)**	(288)
Profit for the year		**828**	792
Attributable to:			
– the common shareholder		**750**	741
– the preferred shareholder		**78**	51
Profit for the year		**828**	792
Average number of common shares outstanding (000's)		**548,668**	548,668
Basic and diluted earnings per common share ($)		**$ 1.37**	$ 1.35

Certain sections within the MD&A that are marked with an asterisk (*), and the accompanying notes, form an integral part of these consolidated financial statements.

Consolidated statement of comprehensive income

for the year ended 31 December

	Notes	2023 $m	2022 $m
Profit for the year		**828**	792
Other comprehensive income			
Items that will be reclassified subsequently to profit or loss when specific conditions are met:			
Debt instruments at fair value through other comprehensive income		**108**	(227)
– fair value gains/(losses)		**156**	(307)
– fair value gains transferred to the income statement on disposal		**(6)**	(2)
– income taxes		**(42)**	82
Cash flow hedges[1]		**253**	(537)
– fair value losses		**(103)**	(710)
– fair value (gains)/losses reclassified to the income statement		**454**	(21)
– income taxes		**(98)**	194
Items that will not be reclassified subsequently to profit or loss:			
Remeasurement of defined benefit plans		**1**	45
– before income taxes	5	**(4)**	61
– income taxes	7	**5**	(16)
Equity instruments designated at fair value through other comprehensive income		**1**	1
– fair value gain		**2**	1
– income taxes		**(1)**	–
Other comprehensive loss/(income) for the year, net of tax		**363**	(718)
Total comprehensive income for the year		**1,191**	74
Attributable to:			
– the common shareholder		**1,113**	23
– the preferred shareholder		**78**	51
Total comprehensive income for the year		**1,191**	74

Certain sections within the MD&A that are marked with an asterisk (*), and the accompanying notes, form an integral part of these consolidated financial statements.

Consolidated balance sheet

at 31 December

	Notes	2023 $m	2022 $m
Assets			
Cash and balances at central banks		**7,089**	6,326
Items in the course of collection from other banks		**12**	9
Trading assets	*11*	**3,253**	4,296
Other financial assets mandatorily measured at fair value through profit or loss		**20**	18
Derivatives	*12*	**3,964**	6,220
Loans and advances to banks		**393**	344
Loans and advances to customers		**74,093**	74,862
Reverse repurchase agreements – non-trading		**3,595**	6,003
Financial investments	*13*	**22,420**	23,400
Other assets	*17*	**1,422**	2,591
Prepayments and accrued income		**367**	351
Customers' liability under acceptances		**2,595**	3,147
Current tax assets		**41**	172
Property, plant and equipment	*14*	**325**	332
Goodwill and intangible assets	*18*	**32**	160
Deferred tax assets	*7*	**89**	71
Total assets		**119,710**	128,302
Liabilities			
Deposits by banks		**360**	712
Customer accounts		**83,236**	82,253
Repurchase agreements – non-trading		**3,654**	4,435
Items in the course of transmission to other banks		**524**	227
Trading liabilities	*19*	**1,870**	3,732
Derivatives	*12*	**4,095**	6,575
Debt securities in issue	*20*	**10,174**	15,735
Other liabilities	*21*	**3,616**	3,577
Acceptances		**2,599**	3,156
Accruals and deferred income		**1,180**	713
Retirement benefit liabilities	*5*	**210**	203
Subordinated liabilities	*22*	**1,011**	1,011
Provisions		**46**	54
Current tax liabilities		**100**	—
Deferred tax liability		**—**	1
Total liabilities		**112,675**	122,384
Equity			
Common shares	*25*	**1,125**	1,125
Preferred shares	*25*	**1,100**	1,100
Other reserves		**(424)**	(786)
Retained earnings		**5,234**	4,479
Total shareholder's equity		**7,035**	5,918
Total liabilities and equity		**119,710**	128,302

Certain sections within the MD&A that are marked with an asterisk (*), and the accompanying notes, form an integral part of these consolidated financial statements.

Approved on behalf of the Board of Directors:

Samuel Minzberg
Chairman
HSBC Bank Canada

Linda Seymour
President and Chief Executive Officer
HSBC Bank Canada

Consolidated statement of cash flows

for the year ended 31 December

	2023	2022
	$m	$m
Profit before income tax expense	**1,121**	1,080
Adjustments for non-cash items:		
Depreciation, amortization and impairment	**184**	151
Share-based payment expense	**21**	5
Change in expected credit losses and other impairment charges	**63**	110
Charge for defined benefit pension plans	**9**	11
Changes in operating assets and liabilities		
Change in prepayment and accrued income	**(16)**	(165)
Change in net trading securities and net derivatives	**(692)**	(1,839)
Change in loans and advances to customers	**700**	(6,282)
Change in reverse repurchase agreements – non-trading	**1,245**	123
Change in other assets	**1,793**	(888)
Change in accruals and deferred income	**467**	312
Change in deposits by banks	**(352)**	(601)
Change in customer accounts	**983**	8,627
Change in repurchase agreements – non-trading	**(781)**	(3,609)
Change in debt securities in issue	**(5,561)**	1,396
Change in other liabilities	**(628)**	(336)
Tax paid	**(222)**	(27)
Net cash from operating activities	**(1,666)**	(1,932)
Purchase of financial investments	**(4,379)**	(10,747)
Proceeds from the sale and maturity of financial investments	**5,511**	2,008
Purchase of intangibles and property, plant and equipment	**(11)**	(117)
Net cash from investing activities	**1,121**	(8,856)
Return of capital to parent	**—**	(600)
Dividends paid to shareholder	**(58)**	(416)
Lease principal payments	**(42)**	(48)
Net cash from financing activities	**(100)**	(1,064)
Net increase in cash and cash equivalents	**(645)**	(11,852)
Cash and cash equivalents at 1 Jan	**7,907**	19,759
Cash and cash equivalents at 31 Dec	**7,262**	7,907
Cash and cash equivalents comprise:		
Cash and balances at central bank	**7,089**	6,326
Items in the course of collection from other banks and Items in the course of transmission to other banks	**(512)**	(218)
Loans and advances to banks of one month or less	**393**	344
Non-trading reverse repurchase agreements with banks of one month or less	**292**	1,455
Cash and cash equivalents at 31 Dec	**7,262**	7,907
Interest:		
Interest paid	**(3,084)**	(1,250)
Interest received	**5,207**	3,056

Certain sections within the MD&A that are marked with an asterisk (*), and the accompanying notes, form an integral part of these consolidated financial statements.

Consolidated statement of changes in equity

for the year ended 31 December

	Share capital[1]	Retained earnings	Other reserves: Financial assets at FVOCI reserve	Other reserves: Cash flow hedging reserve	Other reserves: Total other reserves	Total equity
	$m	$m	$m	$m	$m	$m
At 1 Jan 2023	**2,225**	**4,479**	**(248)**	**(538)**	**(786)**	**5,918**
Profit for the year	**—**	**828**	**—**	**—**	**—**	**828**
Other comprehensive income, net of tax	**—**	**1**	**109**	**253**	**362**	**363**
– debt instruments at fair value through other comprehensive income	**—**	**—**	**108**	**—**	**108**	**108**
– equity instruments designated at fair value through other comprehensive income	**—**	**—**	**1**	**—**	**1**	**1**
– cash flow hedges	**—**	**—**	**—**	**253**	**253**	**253**
– remeasurement of defined benefit plans	**—**	**1**	**—**	**—**	**—**	**1**
Total comprehensive income for the year	**—**	**829**	**109**	**253**	**362**	**1,191**
Deemed dividend[2]	**—**	**(4)**	**—**	**—**	**—**	**(4)**
Dividends paid on common shares	**—**	**—**	**—**	**—**	**—**	**—**
Dividends paid on preferred shares	**—**	**(78)**	**—**	**—**	**—**	**(78)**
Return of capital to parent	**—**	**—**	**—**	**—**	**—**	**—**
Movement in respect of share-based payment arrangements	**—**	**8**	**—**	**—**	**—**	**8**
At 31 Dec 2023	**2,225**	**5,234**	**(139)**	**(285)**	**(424)**	**7,035**
At 1 Jan 2022	2,825	4,074	(22)	(1)	(23)	6,876
Profit for the year	—	792	—	—	—	792
Other comprehensive income/(loss), net of tax	—	45	(226)	(537)	(763)	(718)
– debt instruments at fair value through other comprehensive income	—	—	(227)	—	(227)	(227)
– equity instruments designated at fair value through other comprehensive income	—	—	1	—	1	1
– cash flow hedges	—	—	—	(537)	(537)	(537)
– remeasurement of defined benefit asset/liability	—	45	—	—	—	45
Total comprehensive income for the year	—	837	(226)	(537)	(763)	74
Dividends paid on common shares	—	(380)	—	—	—	(380)
Dividends paid on preferred shares	—	(51)	—	—	—	(51)
Return of capital to parent	(600)	—	—	—	—	(600)
Movement in respect of share-based payment arrangements	—	(1)	—	—	—	(1)
At 31 Dec 2022	2,225	4,479	(248)	(538)	(786)	5,918

1. *Share capital is comprised of common shares $1,125m and preferred shares $1,100m.*
2. *On 18 September 2023, HSBC Global Services (Canada) Limited ('ServCo'), which is an indirect wholly-owned subsidiary of HSBC Holdings, transferred certain shared services to the bank. The transfer was not designed to deliver economic benefits from changes in business activities, but represents a rearrangement of the organization of business activities across legal entities under the common control of HSBC Holdings in its capacity as the ultimate shareholder. The transfer of people and other supporting assets has no significant impact on the overall financial results, position or operations of the bank. The consideration paid to ServCo as part of the transaction was $2m. The combination of the net liabilities assumed and the consideration paid is recognized in equity as a deemed dividend of $4m to the ultimate shareholder.*

Certain sections within the MD&A that are marked with an asterisk (*), and the accompanying notes, form an integral part of these consolidated financial statements.

1 Basis of preparation

(a) Compliance with International Financial Reporting Standards

International Financial Reporting Standards ('IFRS® Accounting Standards') comprise accounting standards as issued or adopted by the International Accounting Standards Board ('IASB') as well as interpretations issued or adopted by the IFRS Interpretations Committee.

HSBC Bank Canada and its subsidiary undertakings (together 'the bank', 'we', 'our', 'HSBC') is an indirectly wholly-owned subsidiary of HSBC Holdings plc ('the Parent', 'HSBC Holdings'). In these consolidated financial statements, HSBC Group means the Parent and its subsidiary companies.

The consolidated financial statements of the bank have been prepared in accordance with IFRS Accounting Standards and in consideration of the accounting guidelines as issued by the Office of the Superintendent of Financial Institutions Canada ('OSFI'), as required under Section 308(4) of the Bank Act. Section 308(4) states that except as otherwise specified by OSFI, the financial statements shall be prepared in accordance with IFRS Accounting Standards.

(b) Standards adopted during the year ended 31 December 2023

The bank has adopted the requirements of IFRS 17 'Insurance contracts' from 1 January 2023 which did not have a material impact on the consolidated financial statements of the bank. The bank has also adopted a number of interpretations and amendments to standards which have had an insignificant effect on these financial statements. Accounting policies have been consistently applied.

(c) Future accounting developments

Minor amendments to IFRS Accounting Standards

The IASB has published a number of minor amendments to IFRS Accounting Standards which are effective from 1 January 2024 and 1 January 2025. We expect they will have an insignificant effect, when adopted, on our consolidated financial statements.

(d) Foreign currencies

The bank's consolidated financial statements are presented in Canadian dollars which is also its functional currency. The abbreviation '$m' represents millions of dollars. All tabular amounts are in millions of dollars except where otherwise noted.

Transactions in foreign currencies are recorded at the rate of exchange on the date of the transaction. Assets and liabilities denominated in foreign currencies are translated at the rate of exchange at the balance sheet date except non-monetary assets and liabilities measured at historical cost that are translated using the rate of exchange at the initial transaction date. Exchange differences are included in other comprehensive income or in the income statement depending on where the gain or loss on the underlying item is recognized.

(e) Presentation of information

Certain sections within the accompanying MD&A that are marked with an asterisk (*) form an integral part of these consolidated financial statements.

(f) Critical estimates and assumptions

The preparation of financial information requires the use of estimates and judgments about future conditions. In view of the inherent uncertainties and the high level of subjectivity involved in the recognition or measurement of items listed below, it is possible that the outcomes in the next financial year could differ from those on which management's estimates are based. This could result in materially different estimates and judgments from those reached by management for the purposes of these financial statements. Management's selection of the bank's accounting policies which contain critical estimates and judgments are listed below and discussed in the 'Critical estimates and judgments' section of Management's Discussion and Analysis. They reflect the materiality of the items to which the policies are applied and the high degree of judgment and estimation uncertainty involved.

- Expected credit loss;
- Valuation of financial instruments;
- Income taxes and deferred tax assets;
- Defined benefit obligations;
- Intangible assets; and
- Provisions.

(g) Segmental analysis

The bank's chief operating decision maker is the Chief Executive Officer, supported by the Executive Committee. Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Executive Officer and the Executive Committee. Our reportable segments under IFRS 8 'Operating Segments' are Commercial Banking, Global Banking, Markets and Securities Services, and Wealth and Personal Banking.

Measurement of segmental assets, liabilities, income and expenses is in accordance with the bank's accounting policies. Segmental income and expenses include transfers between segments and these transfers are conducted at arm's length. Shared costs are included in segments on the basis of the actual recharges made. Various estimate and allocation methodologies are used in the preparation of the segment financial information. We allocate expenses directly related to earning income to the segment that earned the related income. Expenses not directly related to earning income, such as overhead expenses, are allocated using appropriate methodologies. Segments' net interest income reflects internal funding charges and credits on the businesses' assets, liabilities and capital, at market rates, taking into account relevant terms.

(h) Going concern

The financial statements are prepared on a going concern basis, as the Directors are satisfied that the bank has the resources to continue in business for the foreseeable future. In making this assessment, the Directors have considered a wide range of information relating to present and future conditions, including future projections of profitability, cash flows and capital resources.

2 Summary of material accounting policies

(a) Consolidation and related policies

Investments in subsidiaries

The bank controls and consequently consolidates an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Control is initially assessed based on consideration of all facts and circumstances, including the purpose and design of the entity, the facts and circumstances relating to decision making rights and the rights to returns and/or the ability of the bank to vary the returns. Control is subsequently reassessed when there are significant changes to the initial setup, taking into account any changes in the facts and circumstances, significant changes in the rights to returns and/or the ability of the bank to vary the returns.

Where an entity is governed by voting rights, the bank would consolidate when it holds, directly or indirectly, the necessary voting rights to pass resolutions by the governing body. In all other cases, the assessment of control is more complex and requires judgment of other factors, including having exposure to variability of returns, power over the relevant activities or holding the power as agent or principal.

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured at the fair value of the consideration, including contingent consideration, given at the date of exchange. Acquisition-related costs are recognized as an expense in the income statement in the period in which they are incurred. The acquired identifiable assets, liabilities and contingent liabilities are generally measured at their fair values at the date of acquisition. The amount of non-controlling interest is measured either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets. This election is made for each business combination.

All intra-bank transactions are eliminated on consolidation.

Business combinations of entities under common control

Business combinations between the bank and other entities under the common control of HSBC Holdings are accounted for using predecessor accounting. The assets and liabilities are transferred at their existing carrying amount and the difference between the carrying value of the net assets transferred and the consideration received is recorded directly in equity.

Goodwill

Goodwill is measured as the excess of the aggregate of the consideration transferred, the amount of non-controlling interest and the fair value of the bank's previously held equity interest, if any, over the net of the amounts of the identifiable assets acquired and the liabilities assumed.

Goodwill is allocated to cash-generating units ('CGU's) for the purpose of impairment testing, which is undertaken at the lowest level at which goodwill is monitored for internal management purposes. Impairment testing is performed at least annually, or whenever there is an indication of impairment, by comparing the recoverable amount of a CGU with its carrying amount.

Structured entities

The bank is considered to sponsor another entity if, in addition to ongoing involvement with the entity, it had a key role in establishing that entity or in bringing together the relevant counterparties so the transaction that is the purpose of the entity could occur. The bank is not considered to be a sponsor if the only involvement with the entity is to provide services at arm's length and it ceases to be a sponsor once it has no ongoing involvement with the structured entity.

A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, for example when any voting rights relate to administrative tasks only, and key activities are directed by contractual arrangements. Structured entities often have restricted activities and a narrow and well defined objective.

Structured entities are assessed for consolidation in accordance with the accounting policy as set out above.

Interests in associates

The bank classifies investments in entities over which it has significant influence, and that are not subsidiaries (note 15), as associates.

Investments in associates are recognized using the equity method. Under this method, such investments are initially stated at cost, including attributable goodwill, and are adjusted thereafter for the post-acquisition change in the bank's share of net assets.

Profits on transactions between the bank and its associates are eliminated to the extent of the bank's interest in the respective associates. Losses are also eliminated to the extent of the bank's interest in the associates unless the transaction provides evidence of an impairment of the asset transferred.

(b) Operating income

Interest income and expense

Interest income and expense for all financial instruments, except for those classified as held for trading or designated at fair value, are recognized in 'Interest income' and 'Interest expense' in the income statement using the effective interest method. The effective interest rate ('EIR') is the rate that exactly discounts estimated future cash receipts or payments through the expected life of the financial instrument or, where appropriate, a shorter period, to the net carrying amount of the financial asset or financial liability.

Interest on impaired financial assets is recognized by applying the effective interest rate to the carrying value of the asset less allowance for expected credit loss allowance.

Fee income and expense

The recognition of revenue can be either over time or at a point in time depending on when the performance obligation is satisfied. When control of a good or service is transferred over time, if the customer simultaneously receives and consumes the benefits provided by the bank's performance as we perform, the bank satisfies the performance obligation and recognizes revenue over time. Otherwise, revenue is recognized at the point in time at which we transfer control of the good or service to the customer. Variable fees are recognized when all uncertainties are resolved.

For all fee types, where there is a single performance obligation, the transaction price is allocated in its entirety to that performance obligation. Where there are multiple performance obligations, the transaction price is allocated to the performance obligation to which it relates based on stand-alone selling prices.

Income which forms an integral part of the effective interest rate of a financial instrument (for example, certain loan commitment fees) is recognized as an adjustment to the effective interest rate and recorded in 'Interest income'.

The main types of fee income arising from contracts with customers, including information about performance obligations, determine the timing and satisfaction of performance obligations and determining the transaction price and the amounts allocated to performance are as follows:

Credit facilities

Credit facility fees include fees generated from providing a credit facility that are not included within the effective interest rate, such as annual facility fees (commitment fees), standby fees and other transaction based fees charged for late payments, return payments, over credit charges and foreign usage. Fees associated with loan commitments and standby letters of credit are billed upfront and recognized on a straight-line basis over the period the service is performed and the performance obligation is met (e.g. the commitment period). In the event a loan commitment or standby letter of credit is exercised, the remaining unamortized fee is recognized as an adjustment to yield over the loan term. The transaction price (excluding any interest element) usually includes an annual facility fee, which could be a fixed charge or a percentage of the approved credit limit, and other transaction-based charges, which could be either a fixed price or a percentage of the transaction value. Although fees charged can be variable (percentage of credit limit or transaction value), the uncertainty is resolved by the time the revenue is recognized as the credit limit or transaction value is known on the contract or transaction date. Therefore, there is no need to estimate the variable consideration or apply the variable consideration constraint. On the basis that the services are provided evenly over the term of the agreement, the fee is recognized on a straight line basis over the commitment period.

Funds under management

Funds under management include management fees, administration fees and transaction based fees.

Management fees are generally percentage based and therefore represent variable consideration. This amount is subject to the variable consideration constraint and is only included in the transaction price to the extent that it is highly probable that a significant reversal of cumulative revenue will not occur when the uncertainty associated with the variable consideration is subsequently resolved. At the end of each payment period, or at each reporting date, the management fee is allocated to the distinct management services that have been provided during that period. Fee income from management fees is recognized evenly over time on a straight-line basis as the services are provided and the related performance obligations are satisfied evenly over time. The fee percentage and payment period are agreed with the customer upfront. Generally, payment periods are monthly or quarterly and coincide with our reporting periods, thereby resolving the uncertainty of the variable consideration by the reporting date. For payment periods that do not coincide with our reporting periods, judgment is required to estimate the fee and determine the amount to recognize as accrued income. Accrued income is only recorded to the extent it is highly probably that a significant reversal of revenue will not occur. For most contracts, it is highly probable that a significant reversal of accrued management fee revenue will not occur.

Administration fees, where applicable, are based on the terms of each contract as agreed with the customer. These fees are either fixed upfront charges or percentage based fees calculated as a percentage of the average value of a customer's assets at the end of an agreed period. Percentage based administrative fees are included in the transaction price only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved.

Other fees are transaction based and are recognized and billed at the point in time the transaction occurs and the performance obligation is met.

Cards

Credit card arrangements involve numerous contracts between various parties. The bank has determined that the more significant contracts within the scope of IFRS 15 'Revenue from contracts with customers' are:

- the contract between the bank and the credit card holder ('Cardholder Agreement') under which we earn miscellaneous fees (e.g. late payment fees, over-limit fees, foreign exchange fees, etc.) and for some products annual fees; and
- an implied contract between the bank and merchants who accept our credit cards in connection with the purchase of their goods and/or services ('Merchant Agreement') under which we earn interchange fees.

The Cardholder Agreement obligates the bank, as the card issuer, to perform activities such as redeem loyalty points by providing goods, cash or services to the cardholder, provide ancillary services such as concierge services, travel insurance, airport lounge access and the like, process late payments, provide foreign exchange services, and others. The primary fees arising under cardholder agreements which are in scope of IFRS 15 include annual fees, transaction based fees, and penalty fees for late payments. The amount of each fee stated in the contract represents the transaction price for that performance obligation. Annual fees on credit cards are billed upfront and recognized on a straight-line basis. Other credit card fees, as noted above, are transaction based and are recognized and billed at the point in time the transaction occurs and the performance obligation is met.

Interchange fees

The implied contract between the bank and the merchant results in the bank receiving an interchange fee from the merchant. The interchange fee represents the transaction price associated with the implied contract between the bank and the merchant because it represents the amount of consideration to which the bank expects to be entitled in exchange for transferring the promised service (i.e. purchase approval and payment remittance) to the merchant. The performance obligation associated with the implied contract between the bank and the merchant is satisfied upon performance and simultaneous consumption by the customer of the underlying service (i.e. purchase approval and payment remittance). Therefore, the interchange fee is recognized as revenue each time the bank approves a purchase and remits payment to the merchant.

Account services

The bank provides services for current accounts that generate fees from various activities including: accounts statements, ATM transactions, cash withdrawals, wire transfers, utilization of cheques, debit cards and internet and telephone banking. The fees for these services are established in the customer account agreement and are either billed individually at the time the service is performed and the performance obligation is met, or on a monthly basis for a package or bundle of services as the services are performed and the performance obligation is met. Customer account agreements typically include a package of services with multiple performance obligations or a bundle of services making up a single performance obligation. In the case of a package of services, the pattern of transfer to the customer is the same for all services (stand ready obligation) therefore, all the goods and services are treated as a single performance obligation. The transaction price is allocated in its entirety to the single performance obligation. The performance obligation associated with account services is satisfied as a stand ready obligation to provide services evenly over time, and therefore, the fee income from account services is recognized evenly over time.

Net income from financial instruments held for trading is comprised of the net trading income, which includes all gains and losses from changes in the fair value of financial assets and liabilities held for trading, together with the related interest income, expense and dividends. It also includes all gains and losses from changes in the fair value of derivatives that are managed in conjunction with financial assets and liabilities measured at fair value through profit or loss.

(c) Valuation of financial instruments

All financial instruments are initially recognized at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of a financial instrument on initial recognition is generally its transaction price (that is, the fair value of the consideration given or received). However, sometimes the fair value will be based on other observable current market transactions in the same instrument, without modification or repackaging, or on a valuation technique whose variables include only data from observable markets, such as interest rate yield curves, option volatilities and currency rates. If there is a difference between the transaction price and the fair value of financial instruments whose fair value is based on a quoted price in an active market or a valuation technique that uses only data from observable markets, the bank recognizes the difference as a trading gain or loss at inception (a 'day 1 gain or loss'). In all other cases, the entire day 1 gain or loss is deferred and recognized in the income statement over the life of the transaction until the transaction matures, is closed out, the valuation inputs become observable or the bank enters into an offsetting transaction.

(d) Financial instruments measured at amortized cost

Financial assets that are held to collect the contractual cash flows and that contain contractual terms that give rise on the specified dates to cash flows that are solely payments of principal and interest, such as most loans and advances to banks and customers and some debt securities, are measured at amortized cost. In addition, most financial liabilities are measured at amortized cost. The bank accounts for regular way amortized cost financial instruments using trade date accounting. The carrying value of these financial assets at initial recognition includes any directly attributable transaction costs.

The bank may commit to underwriting loans on fixed contractual terms for specified periods of time. When the loan arising from the lending commitment is expected to be held for trading, the commitment to lend is recorded as a derivative. When the bank intends to hold the loan, the loan commitment is included in the impairment calculations set out below.

Non-trading reverse repurchase, repurchase and similar agreements

When debt securities are sold subject to a commitment to repurchase them at a predetermined price ('repos'), they remain on the balance sheet and a liability is recorded in respect of the consideration received. Securities purchased under commitments to resell ('reverse repos') are not recognized on the balance sheet and an asset is recorded in respect of the initial consideration paid. Non-trading repos and reverse repos are measured at amortized cost. The difference between the sale and repurchase price or between the purchase and resale price is treated as interest expense and interest income respectively, and recognized in net interest income over the life of the agreement.

(e) Financial assets measured at fair value through other comprehensive income ('FVOCI')

Financial assets held for a business model that is achieved by both collecting contractual cash flows and selling and that contain contractual terms that give rise on specified dates to cash flows that are solely payments of principal and interest are measured at FVOCI. These comprise primarily debt securities. They are recognized on trade date when the bank enters into contractual arrangements to purchase and are normally derecognized when they are either sold or redeemed. They are subsequently remeasured at fair value and changes therein (except for those relating to impairment, interest income and foreign currency exchange gains and losses which are recognized immediately in net income) are recognized in other comprehensive income until the assets are sold. Upon disposal, the cumulative gains or losses in other comprehensive income are recognized in the income statement as 'Gains less losses from financial investments'. Financial assets measured at FVOCI are included in the impairment calculations set out below and impairment is recognized in profit or loss.

(f) Equity securities measured at fair value with fair value movements presented in OCI

The equity securities for which fair value movements are shown in OCI are business facilitation and other similar investments where the bank holds the investments other than to generate a capital return. Dividends from such investments are recognized in profit or loss. Gains or

losses on the derecognition of these equity securities are not transferred to profit or loss. Otherwise, equity securities are measured at fair value through profit or loss.

(g) Financial instruments designated and otherwise mandatorily measured at fair value through profit or loss ('FVPL')

Equity securities for which the fair value movements are not shown in OCI are mandatorily classified in this category.

Additionally, financial instruments, other than those held for trading, are classified in this category if they meet one or more of the criteria set out below and are so designated irrevocably at inception:

- the use of the designation removes or significantly reduces an accounting mismatch;
- when a group of financial assets and liabilities or a group of financial liabilities is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy; and
- where the financial liability contains one or more non-closely related embedded derivatives.

Designated financial assets are recognized when the bank enters into contracts with counterparties, which is generally on trade date, and are normally derecognized when the rights to the cash flows expire or are transferred. Designated financial liabilities are recognized when the bank enters into contracts with counterparties, which is generally on settlement date, and are normally derecognized when extinguished. Subsequent changes in fair values are recognized in the income statement.

Under the above criterion, there are no such financial instruments designated at fair value by the bank at 31 December 2023.

(h) Derivatives

Derivatives are financial instruments that derive their value from the price of underlying items such as equities, interest rates or other indices. Derivatives are recognized initially, and are subsequently re-measured at fair value through profit or loss. Fair values of derivatives are obtained either from quoted market prices or by using valuation techniques. Derivatives are only offset for accounting purposes if the offsetting criteria are met.

Embedded derivatives in financial liabilities are treated as separate derivatives ('bifurcated') when their economic characteristics and risks are not closely related to those of the host non-derivative contract, their contractual terms would otherwise meet the definition of a stand-alone derivative and the combined contract is not measured at fair value through profit or loss.

Derivatives are classified as assets when their fair value is positive or as liabilities when their fair value is negative. Derivative assets and liabilities arising from different transactions are only offset if the transactions are with the same counterparty, a legal right of offset exists, and the parties intend to settle the cash flows on a net basis.

Gains and losses from changes in the fair value of derivatives, including the contractual interest, that do not qualify for hedge accounting are reported in 'Net income from financial instruments held for trading'.

When derivatives are designated as hedges, the bank classifies them as either: (i) hedges of the change in fair value of recognized assets or liabilities or firm commitments ('fair value hedges'); or (ii) hedges of the variability in highly probably future cash flows attributable to a recognized asset or liability, or a forecast transaction ('cash flow hedges').

Hedge accounting

As permitted by IFRS 9 'Financial instruments', the bank has exercised an accounting policy choice to remain with IAS 39 hedge accounting. At the inception of a hedging relationship, the bank documents the relationship between the hedging instruments and the hedged items, its risk management objective and its strategy for undertaking the hedge. The bank requires a documented assessment, both at hedge inception and on an ongoing basis, of whether or not the hedging instruments are highly effective in offsetting the changes attributable to the hedged risks in the fair values or cash flows of the hedged items.

Fair value hedge

Fair value hedge accounting does not change the recording of gains and losses on derivatives and other hedging instruments, but results in recognizing changes in the fair value of the hedged assets or liabilities attributable to the hedged risk that would not otherwise be recognized in the income statement. If a hedging relationship no longer meets the criteria for hedge accounting, hedge accounting is discontinued and the cumulative adjustment to the carrying amount of a hedged item for which the effective interest rate method is used is amortized to the income statement on a recalculated effective interest rate over the residual period to maturity, unless the hedged item has been derecognized, in which case it is recognized to the income statement immediately.

Cash flow hedge

The effective portion of gains and losses on hedging instruments is recognized in other comprehensive income and the ineffective portion of the change in fair value of derivative hedging instruments that are part of a cash flow hedge relationship is recognized immediately in the income statement within 'Net income from financial instruments held for trading'.

The accumulated gains and losses recognized in other comprehensive income are reclassified to the income statement in the periods in which the hedged item affects profit or loss. In hedges of forecast transactions that result in recognition of a non-financial asset or liability, previous gains and losses recognized in other comprehensive income are included in the initial measurement of the asset or liability.

When a hedge relationship is discontinued, any cumulative gain or loss recognized in other comprehensive income remains in equity until the forecast transaction is recognized in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss previously recognized in other comprehensive income is immediately reclassified to the income statement.

Hedge effectiveness testing

To qualify for hedge accounting, the bank requires that, at the inception of the hedge and throughout its life, each hedge must be expected to be highly effective both prospectively and retrospectively, on an ongoing basis.

The documentation of each hedging relationship sets out how the effectiveness of the hedge is assessed and the method adopted by an entity to assess hedge effectiveness will depend on its risk management strategy. For prospective effectiveness, the hedging instrument must be expected to be highly effective in offsetting changes in fair value or cash flows attributable to the hedged risk during the period for which the hedge is designated, with the effectiveness range being defined as 0.8 to 1.25. Hedge ineffectiveness is recognized in the income statement in 'Net income from financial instruments held for trading'.

Derivatives that do not qualify for hedge accounting

Non-qualifying hedges are derivatives entered into as economic hedges of assets and liabilities for which hedge accounting was not applied.

(i) Impairment of amortized cost financial assets, FVOCI financial assets, certain loan commitments and financial guarantee contracts

Expected credit losses ('ECL') are recognized for loans and advances to banks and customers, non-trading reverse repurchase agreements, customers' liability under acceptances, other financial assets held at amortized cost, debt instruments measured at amortized cost and fair value through other comprehensive income, and certain loan commitments and financial guarantee contracts. At the end of the first reporting period after initial recognition, an allowance (or provision in the case of some loan commitments and financial guarantees) is required for ECL resulting from default events that are possible within the next 12 months (or less, where the remaining life is less than 12 months) ('12-month ECL'). In the event of a significant increase in credit risk, an allowance (or provision) is recognized for ECL resulting from all possible default events over the expected life of the financial instruments ('lifetime ECL'). Financial assets (and certain loan commitments and financial guarantee contracts) where 12-month ECL is recognized are considered to be 'stage 1'; financial assets (and certain loan commitments and financial guarantee contracts) which are considered to have experienced a significant increase in credit risk are in 'stage 2'; and financial assets (and certain loan commitments and financial guarantee contracts) for which there is objective evidence of impairment so are considered to be in default or otherwise credit-impaired are in 'stage 3'. The allowance (or provision) for stage 2 and stage 3 financial assets (and certain loan commitments and financial guarantee contracts) is recognized using lifetime ECL.

Credit-impaired (stage 3)

The bank determines that a financial instrument is credit-impaired and in stage 3 by considering relevant objective evidence, primarily whether:

- contractual payments of either principal or interest are past due for more than 90 days;
- there are other indications that the borrower is unlikely to pay, such as that a concession has been granted to the borrower for economic or legal reasons relating to the borrower's financial condition; or
- the loan is otherwise considered to be in default.

If such unlikeliness to pay is not identified at an earlier stage, it is deemed to occur when an exposure is 90 days past due, even where regulatory rules permit default to be defined based on 180 days past due. Therefore, the definitions of credit-impaired and default are aligned as far as possible so that stage 3 represents all loans which are considered defaulted or otherwise credit-impaired.

Interest income is recognized by applying the effective interest rate to the amortized cost amount, i.e. gross carrying amount less ECL allowance.

Write-off

Financial assets (and the related impairment allowances) are normally written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, this is generally after receipt of any proceeds from the realization of security. In circumstances where the net realizable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier.

Forbearance

Loans are identified as forborne and classified as either performing or non-performing when we modify the contractual terms due to financial difficulty of the borrower. Non-performing forborne loans are stage 3 and classified as non-performing until they meet the cure criteria, as specified by applicable credit risk policy (for example, when the loan is no longer in default and no other indicators of default have been present for at least 12 months). Any amount written off as a result of any modification of contractual terms upon entering forbearance would not be reversed.

The bank applies the EBA Guidelines on the application of definition of default, which affect credit risk policies and our reporting in respect of the status of loans as credit impaired principally due to forbearance (or curing thereof). Further details are provided under the 'Forborne loans and advances' section of the MD&A.

Performing forborne loans are migrated to stage 2 and remain classified as forborne until they meet applicable cure criteria (for example, no additional concessions are provided by the bank and no indicators of default are present for a period of at least 24 months). At this point, the loan is either stage 1 or stage 2 as determined by comparing the risk of default occurring at the reporting date (based on the modified contractual terms) and the risk of a default occurring at initial recognition (based on the original, unmodified contractual terms).

A forborne loan is derecognized if the existing agreement is cancelled and a new agreement is made on substantially different terms, or if the terms of an existing agreement are modified such that the forborne loan is a substantially different financial instrument. Any new loans that arise following derecognition events in these circumstances would generally be classified as purchased or originated credit impaired 'POCI' and will continue to be disclosed as forborne.

Loan modifications other than forborne loans

In most circumstances, loan modifications that are not identified as forborne are considered to be commercial restructurings. Where a commercial restructuring results in a modification (whether legalized through an amendment to the existing terms or the issuance of a new loan contract) such that the bank's rights to the cash flows under the original contract have expired, the old loan is derecognized and a new loan is recognized at fair value. The rights to cash flows are generally considered to have expired if the commercial restructure is at market

rates and no payment-related concession has been provided. In certain circumstances, modifications to loans are made that are not considered to be renegotiated or commercial restructuring. Such loans are not derecognized and will continue to be subject to the impairment policy. Changes made to these financial instruments that are economically equivalent and required by interest rate benchmark reform do not result in the derecognition or a change in the carrying amount of the financial instrument, but instead require the effective interest rate to be updated to reflect the change of the interest rate benchmark.

Significant increase in credit risk (stage 2)

An assessment of whether credit risk has increased significantly since initial recognition is performed at each reporting period by considering the change in the risk of default occurring over the remaining life of the financial instrument. The assessment explicitly or implicitly compares the risk of default occurring at the reporting date compared to that at initial recognition, taking into account reasonable and supportable information, including information about past events, current conditions and future economic conditions. The assessment is unbiased, probability-weighted, and to the extent relevant, uses forward-looking information consistent with that used in the measurement of ECL. The analysis of credit risk is multi-factor. The determination of whether a specific factor is relevant and its weight compared with other factors depends on the type of product, the characteristics of the financial instrument and the borrower, and the geographical region. Therefore, it is not possible to provide a single set of criteria that will determine what is considered to be a significant increase in credit risk and these criteria will differ for different types of lending, particularly between retail and wholesale. However, unless identified at an earlier stage, all financial assets are deemed to have suffered a significant increase in credit risk when payments are 30 days past due. In addition, wholesale loans that are individually assessed, typically corporate and commercial customers, and included on a watch or worry list are included in stage 2.

For wholesale portfolios, the quantitative comparison assesses default risk using a lifetime probability of default (‘PD’) which encompasses a wide range of information including the obligor’s customer risk rating (‘CRR’), macroeconomic condition forecasts and credit transition probabilities. Significant increase in credit risk is measured by comparing the average PD for the remaining term estimated at origination with the equivalent estimation at reporting date. The significance of changes in PD was informed by expert credit risk judgment, referenced to historical credit migrations and to relative changes in external market rates.

For wholesale loans originated prior to the implementation of IFRS 9, the origination PD does not include adjustments to reflect expectations of future macroeconomic conditions since these are not available without the use of hindsight. In the absence of this data, the origination PD is approximated assuming through-the-cycle (‘TTC’) PDs and TTC migration probabilities, consistent with the instrument’s underlying modeling approach and the CRR at origination. For these loans, the quantitative comparison is supplemented with additional CRR deterioration-based thresholds, as set out in the table below:

Origination CRR	Additional significance criteria - number of CRR grade notches deterioration required to identify as significant credit deterioration (stage 2) (> or equal to)
0.1	5 notches
1.1 - 4.2	4 notches
4.3 - 5.1	3 notches
5.2 - 7.1	2 notches
7.2 - 8.2	1 notch
8.3	0 notch

Further information about the 23-grade scale used for CRR can be found on page 30.

For certain portfolios of debt securities where external market ratings are available and credit ratings are not used in credit risk management, the debt securities will be in stage 2 if their credit risk increases to the extent they are no longer considered investment grade. Investment grade is where the financial instrument has a low risk of incurring losses, the structure has a strong capacity to meet its contractual cash flow obligations in the near term and adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfill their contractual cash flow obligations.

For retail portfolios, default risk is assessed using a reporting date 12-month PD derived from credit scores which incorporate all available information about the customer. This PD is adjusted for the effect of macroeconomic forecasts for periods longer than 12 months and is considered to be a reasonable approximation of a lifetime PD measure. Retail exposures are first segmented into homogeneous portfolios, generally by product and brand. Within each portfolio, the stage 2 accounts are defined as accounts with an adjusted 12-month PD greater than the average 12-month PD of loans in that portfolio 12 months before they become 30 days past due. The expert credit risk judgment is that no prior increase in credit risk is significant. This portfolio-specific threshold identifies loans with a PD higher than would be expected from loans that are performing as originally expected and higher than that which would have been acceptable at origination. It therefore approximates a comparison of origination to reporting date PDs.

Unimpaired and without significant increase in credit risk (stage 1)

ECL resulting from default events that are possible within the next 12 months (‘12-month ECL’) are recognized for financial instruments that remain in stage 1.

Movement between stages

Financial assets can be transferred between the different categories depending on their relative increase in credit risk since initial recognition. Financial instruments are transferred out of stage 2 if their credit risk is no longer considered to be significantly increased since initial recognition based on the assessments described above. Except for forborne loans, financial instruments are transferred out of stage 3 when they no longer exhibit any evidence of credit impairment as described above. Non-performing forborne loans are transferred out of stage 3 when they no longer exhibit any evidence of credit impairment and meet the curing criteria as described above.

Measurement of ECL

The assessment of credit risk, and the estimation of ECL, are unbiased and probability-weighted, and incorporate all available information which is relevant to the assessment including information about past events, current conditions and reasonable and supportable forecasts of

future events and economic conditions at the reporting date. In addition, the estimation of ECL should take into account the time value of money.

In general, the bank calculates ECL using three main components: a probability of default, a loss given default ('LGD') and the exposure at default ('EAD').

The 12-month ECL is calculated by multiplying the 12-month PD, LGD, and EAD. Lifetime ECL is calculated using the lifetime PD instead. The 12-month and lifetime PDs represent the probability of default occurring over the next 12 months and the remaining maturity of the instrument respectively.

The EAD represents the expected balance at default, taking into account the repayment of principal and interest from the balance sheet date to the default event together with any expected drawdowns of committed facilities. The LGD represents expected losses on the EAD given the event of default, taking into account, among other attributes, the mitigating effect of collateral value at the time it is expected to be realized and the time value of money.

The bank leverages the Basel II IRB framework where possible, with recalibration to meet the differing IFRS 9 requirements as follows:

Model	Regulatory capital	IFRS 9
PD	• Through the cycle (represents long-run average PD through a full economic cycle) • The definition of default includes a backstop of 90+ days past due	• Point in time (based on current conditions, adjusted to take into account estimates of future conditions that will impact PD) • Default backstop of 90+ days past due
EAD	• Cannot be lower than current balance	• Amortization captured for term products
LGD	• Downturn LGD (consistent losses expected to be suffered during a severe but plausible economic downturn) • Regulatory floors may apply to mitigate risk of underestimating downturn LGD due to lack of historical data • Discounted using cost of capital • All collection costs included	• Expected LGD (based on estimate of loss given default including the expected impact of future economic conditions such as the change in value of collateral) • No floors • Discounted using the original effective interest rate of the loan • Only costs associated with obtaining/selling collateral included
Other		• Discounted back from point of default to balance sheet date

While 12-month PDs are recalibrated from Basel models where possible, the lifetime PDs are determined by projecting the 12-month PD using a term structure. For the wholesale methodology, the lifetime PD also takes into account credit migration, i.e. a customer migrating through CRR bands over its life.

The estimation of ECL for financial assets in stage 3 involves significant management judgement when designing ECL scenarios for expected cash flows based on expected recoveries and in determining the key inputs and assumptions to calculate the estimated cash flows. The ECL for wholesale stage 3 is determined on an individual basis using a discounted cash flows ('DCF') methodology. There is judgement involved in the estimation of expected future cash flows which are based on the relationship manager's estimates at the reporting date, reflecting reasonable assumptions and projections of future recoveries and receipts of interest. Collateral is taken into account if it is likely that the recovery of the outstanding amount will include realization of collateral based on the estimated fair value of collateral at the time of expected realization, less costs for obtaining and selling the collateral. The cash flows are discounted at a reasonable approximation of the original effective interest rate. For significant cases, cash flows using up to four different scenarios are probability-weighted and, if applicable, include reference to the forward economic guidance applied more generally by the bank and the judgment of the relationship manager in relation to the likelihood of each scenario. For less significant cases, the effect of different economic scenarios and work-out strategies is approximated and applied as an adjustment to the most likely outcome. The movements associated with these variables are referred to as 'Changes to risk parameters' in the 'Reconciliation of allowances for loans and advances to banks and customers including loan commitments and financial guarantees' section within the MD&A.

Period over which ECL is measured

ECL is measured at each reporting date after the initial recognition of the financial asset. The maximum period considered when measuring ECL (be it 12-month or lifetime ECL) is the maximum contractual period over which the bank is exposed to credit risk. For wholesale overdrafts, credit risk management actions are taken no less frequently than on an annual basis and therefore this period is to the expected date of the next substantive credit review. The date of the substantive credit review also represents the initial recognition of the new facility. However, where the financial instrument includes both a drawn and undrawn commitment and the contractual ability to demand repayment and cancel the undrawn commitment does not serve to limit the bank's exposure to credit risk to the contractual notice period, the contractual period does not determine the maximum period considered. Instead, ECL is measured over the period the bank remains exposed to credit risk that is not mitigated by credit risk management actions. This applies to retail overdrafts and credit cards, where the period is the average time taken for stage 2 exposures to default or close as performing accounts, determined on a portfolio basis and ranging from between two and nine years. In addition, for these facilities it is not possible to identify the ECL on the loan commitment component separately from the financial asset component. As a result, the total ECL is recognized in the loss allowance for the financial asset unless the total ECL exceeds the gross carrying amount of the financial asset, in which case the ECL is recognized as a provision.

Forward-looking economic inputs

Four forward-looking global economic scenarios have been used to capture the current economic environment and to articulate management's view of the range of potential outcomes. Three of these scenarios are drawn from consensus forecasts and distributional estimates. They represent a 'most likely' scenario (the Central scenario) and two, less likely, 'Outer' scenarios on either side of the Central, referred to as the consensus Upside and consensus Downside scenario respectively. The fourth scenario, the Downside 2 scenario, reflects management's view of severe downside risk.

Management have assigned probability weights to the scenarios that reflect their view of the distribution of risks. The Central scenario has been assigned a weighting of 70%, the consensus Upside scenario has been assigned a weighting of 5%, the consensus Downside scenario has been assigned a weighting of 15%, and the Downside 2 scenario has been assigned a weighting of 10%. The difference between the

Central and Outer scenarios in terms of economic severity being informed by the spread of external forecast distributions among professional industry forecasts.

The Outer scenarios are economically plausible, internally consistent states of the world and will not necessarily be as severe as scenarios used in stress testing. The period of forecast is five years, after which the forecasts will revert to long-term consensus trend expectations. The Downside 2 scenario explores more extreme economic outcomes and the variables do not, by design, revert to long-term trend expectations. The economic factors include, but are not limited to, gross domestic product, unemployment, house price growth, and Brent oil prices.

(j) Employee compensation and benefits

Post-employment benefits

The bank operates a number of pension and other post-employment benefit plans. These plans include both defined benefit and defined contribution plans and various other post-employment benefits such as post-employment healthcare. Pension plans in which the risks are shared by entities under common control are considered group pension plans. One of the pension plans is a group plan with employees of both the bank and HSBC Global Services (Canada) Limited ('ServCo'), a subsidiary of HSBC Holdings, participating in the plan. The pension plans are funded by contributions from the bank and ServCo and the employees of both entities. The bank and ServCo make contributions to the defined benefit plans in respect of their employees, based on actuarial valuation. The supplemental pension arrangements and post-employment benefits are not funded.

Payments to defined contribution plans are charged as an expense to the bank as the employees render service.

The defined benefit pension costs and the present value of defined benefit obligations are calculated at the reporting date by the schemes' actuaries using the Projected Unit Credit Method. The bank and Servco are charged defined benefit pension costs for their respective employees.

The net charge to the income statement mainly comprises the service cost and the net interest on the net defined benefit liability, and is presented in operating expenses.

The past service cost, which is charged immediately to the income statement, is the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or curtailment (a significant reduction by the entity in the number of employees covered by a plan).

Re-measurements of the net defined benefit liability, which comprise actuarial gains and losses, return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income.

Actuarial gains and losses comprise experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred), as well as the effects of changes in actuarial assumptions.

The fair value of an annuity, issued by a third party that is held within a plan for the benefit of the plan participants and which makes annuity payments that exactly match the amount and timing of some of the benefits payable under the plan, is deemed to be equivalent to the actuarial value of the related defined benefit obligation.

The net defined benefit liability represents the present value of defined benefit obligations reduced by the fair value of plan assets, after applying the asset ceiling test, where the net defined benefit surplus is limited to the present value of available refunds and reductions in future contributions to the plan.

The cost of obligations arising from other post-employment defined benefit plans, such as defined benefit health-care plans, are accounted for on the same basis as defined benefit pension plans.

Share-based payments

The bank enters into both equity-settled and cash-settled share-based payment arrangements with its employees as compensation for services provided by employees.

The vesting period for these schemes may commence before the grant date if the employees have started to render services in respect of the award before the grant date. Expenses are recognized when the employee starts to render service to which the award relates.

HSBC Holdings is the grantor of its equity instruments awarded to employees of the bank. The bank is required to partially fund share-based payment arrangements awarded to its employees. The cost of share-based payment arrangements with employees is measured by reference to the fair value of equity instruments on the date they are granted, and recognized as an expense on a straight-line basis over the vesting period. As a result of the bank's share-based payment arrangements being accounted for as equity-settled, the difference between the share-based payment expense, and the fair value of the equity instruments issued to satisfy those arrangements, is recognized in 'Retained Earnings' over the vesting period.

Fair value is determined by using appropriate valuation models, taking into account the terms and conditions of the award. Vesting conditions include service conditions and performance conditions; any other features of the arrangement are non-vesting conditions. Market performance conditions and non-vesting conditions are taken into account when estimating the fair value of the award at the grant date. Vesting conditions, other than market performance conditions, are not taken into account in the initial estimate of the fair value at the grant date. They are taken into account by adjusting the number of equity instruments included in the measurement of the transaction.

A cancellation that occurs during the vesting period is treated as an acceleration of vesting, and recognized immediately for the amount that would otherwise have been recognized for services over the vesting period. Failure to meet a vesting condition by the employee is not treated as a cancellation and the amount of expense recognized for the award is adjusted to reflect the number of awards expected to vest.

(k) Tax

Income tax comprises current tax and deferred tax. Income tax is recognized in the income statement except to the extent that it relates to items recognized in other comprehensive income or directly in equity, in which case it is recognized in the same statement in which the related item appears. When determining the taxation rate for amounts reported in income or other comprehensive income, the bank firstly

calculates the overall taxation rate and then applies that taxation rate to items of income and other comprehensive income unless another allocation approach is more appropriate based on how the graduated rate applies to the reported items.

Current tax is the tax expected to be payable on the taxable profit for the year, calculated using tax rates enacted or substantively enacted by the balance sheet date, and any adjustment to tax payable in respect of previous years. The bank provides for potential current tax liabilities that may arise on the basis of the amounts expected to be paid to the tax authorities. Current tax assets and liabilities are offset when the bank intends to settle on a net basis and the legal right to offset exists.

Tax laws are complex and can be subject to interpretation. Management applies its own judgment to the application and interpretation of tax laws, but the interpretation by the relevant tax authorities may differ. Tax liabilities are recognized based on best estimates of the probable outcome. If the final outcome is in favor of the decisions made by the relevant tax authorities, additional liabilities and expense in excess of the amounts recorded may result.

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the balance sheet and the amounts attributed to such assets and liabilities for tax purposes. Deferred tax liabilities are generally recognized for all taxable temporary differences and deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which deductible temporary differences can be utilized.

Deferred tax is calculated using the tax rates expected to apply in the periods in which the assets will be realized or the liabilities settled, based on tax rates and laws enacted, or substantively enacted, by the balance sheet date. Deferred tax assets and liabilities are offset when the bank has a legal right to offset.

Deferred tax relating to actuarial gains and losses on post-employment benefits is recognized in other comprehensive income. Deferred tax relating to share-based payment transactions is recognized directly in equity to the extent that the amount of the estimated future tax deduction exceeds the amount of the related cumulative remuneration expense. Tax relating to fair value re-measurements of debt instruments at fair value through other comprehensive income and cash flow hedging instruments which are charged or credited directly to other comprehensive income is recognized in the statement of comprehensive income and is subsequently recognized in the income statement when the deferred fair value gain or loss is recognized in the income statement.

(l) Provisions, contingent liabilities and guarantees

Provisions

Provisions represent liabilities of uncertain timing or amount and are recognized when the bank has a present legal or constructive obligation as a result of a past event which results in a probable outflow of resources to settle the obligation and for which a reliable estimate can be made of the obligation at the reporting date. Provisions are measured based upon the best estimate of the amount that would be required to settle the provision at the reporting date. The bank makes provisions for undrawn commitments and guarantees to reflect the best estimate of losses incurred by the bank at the reporting date. In other instances, the bank may recognize provisions for matters such as litigation when the recognition criteria described above are met.

Contingent liabilities

Contingent liabilities are possible obligations that arise from past events whose existence will be confirmed by uncertain future events not wholly within the control of the bank or are present obligations that have arisen from past events where it is not probable that settlement will require the outflow of economic benefits or where the amount of settlement cannot be reliably measured. Contingent liabilities, which include certain guarantees and letters of credit pledged as collateral security, and contingent liabilities related to legal proceedings or regulatory matters, are not recognized in the financial statements but are disclosed unless the probability of settlement is remote.

Financial guarantee contracts

Financial guarantee contacts are contracts that require the bank to make specified payments to reimburse the holder for a loss incurred because a specified debtor fails to make payment when due. Liabilities under financial guarantee contracts are recorded initially at their fair value, which is generally the fee received or receivable. Subsequently, financial guarantee liabilities are measured at the higher of the initial fair value, less cumulative amortization, and the expected credit loss.

(m) Lease commitments

Agreements which convey the right to control the use of an identified asset for a period of time in exchange for consideration are classified as leases. As a lessee, the bank recognizes a right-of-use asset in 'Property, plant and equipment' and a corresponding liability in 'Other liabilities'. The asset will be amortized over the length of the lease, and the lease liability measured using a methodology similar to amortized cost. The lease liability is initially recognized as the net present value of the lease payments over the term of the lease. The lease term is considered to be the non-cancellable period of the lease together with the periods covered by an option to extend if the bank is reasonably certain to extend and periods covered by an option to terminate the lease if the bank is reasonably certain not to terminate early. In determining the lease term, the bank considers all relevant facts and circumstances that create an economic incentive for it to exercise an extension option or not to terminate early. The right-of-use asset is initially recognized at an amount equal to the lease liability adjusted by any lease incentives received.

The amortization charge of the right-of-use asset is included in 'Depreciation'. Interest on the lease liability is included in 'interest expense'. As permitted by IFRS 16, the bank has used the practical expedient of excluding lease payments for short-term leases and leases for which the underlying asset value is low when recognizing right-of-use assets and corresponding liabilities. These are recognized as an expense on a straight-line basis over the lease term.

As a lessor, leases which transfer substantially all the risks and rewards incidental to the ownership of assets, are classified as finance leases. Under finance leases, the bank presents the present value of the future finance lease payments receivable and residual value accruing to it in 'Loans and advances to banks' or 'Loans and advances to customers'. All other leases are classified as operating leases. The bank presents assets subject to operating leases in 'Property, plant and equipment'. Impairment losses are recognized to the extent that carrying values are not fully recoverable. Finance income on finance leases is recognized in 'Net interest income' over the lease term so as to give a constant

rate of return. Rentals receivable under operating leases are recognized on a straight-line basis over the lease term and are recognized in 'Other operating income'.

(n) Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is reported in the balance sheet when there is an unconditional legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

(o) Property, plant and equipment

Land and buildings are stated at historical cost, less impairment losses and depreciation over their estimated useful lives, as follows:

- freehold land is not depreciated;
- freehold buildings are depreciated over their estimated useful lives, which are generally between 20 and 40 years; and
- leasehold improvements are depreciated over the shorter of their unexpired term of the lease or their remaining useful lives.

Equipment, fixtures and fittings (including equipment on operating leases where the bank is the lessor) are stated at cost less impairment losses and depreciation over their useful lives, which are generally between 3 and 5 years.

Property, plant and equipment is subject to an impairment review if their carrying amount may not be recoverable.

(p) Intangible assets

The bank's intangible assets include both purchased and internally generated computer software. The cost of internally generated software comprises all directly attributable costs necessary to create, produce and prepare the software to be capable of operating in the manner intended by management. Costs incurred in the ongoing maintenance of software are expensed immediately as incurred.

Intangible assets are subject to impairment review if there are events or changes in circumstances that indicate that the carrying amount may not be recoverable. Computer software is stated at cost less amortization and accumulated impairment losses and is amortized over the estimated useful life, which is generally between 3 and 5 years. The estimated useful life is subject to review, and if expectations of the period over which economic benefits to be derived from the asset differ from the previous estimate, the estimated useful life of the asset is changed. A change in the estimated useful life of an asset is accounted for prospectively.

(q) Share capital

Financial instruments issued are generally classified as equity when there is no contractual obligation to transfer cash or other financial assets. Incremental costs directly attributable to the issue of equity instruments are shown in equity as a deduction from the proceeds, net of tax.

(r) Cash and cash equivalents

Cash and cash equivalents include highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value. Such investments are normally those with less than three months', or a lesser period depending on the instrument, maturity from the date of acquisition, and include cash and cash balances at the central bank, items in the course of collection from or in transmission to other banks, loans and advances to banks, non-trading reverse repurchase agreements, and T-bills and certificates of deposit.

3 Net fee income

Net fee income by business segment

	2023						2022					
	Commercial Banking	**Wealth and Personal Banking**	**Global Banking**	**Markets and Securities Services**	**Corporate Centre[1]**	**Total**	Commercial Banking	Wealth and Personal Banking	Global Banking	Markets and Securities Services	Corporate Centre[1]	Total
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	$m	$m	$m	$m	$m	$m
Account services	**49**	**20**	**9**	**—**	**—**	**78**	48	18	11	—	—	77
Broking income	**—**	**11**	**—**	**—**	**—**	**11**	—	13	—	—	—	13
Cards	**36**	**70**	**2**	**—**	**—**	**108**	30	64	2	—	—	96
Credit facilities	**317**	**—**	**17**	**—**	**—**	**334**	311	—	30	—	—	341
Funds under management	**—**	**215**	**—**	**—**	**—**	**215**	—	224	—	—	—	224
Imports/exports	**10**	**—**	**1**	**—**	**—**	**11**	10	—	1	—	—	11
Insurance agency commission	**—**	**5**	**—**	**—**	**—**	**5**	—	4	—	—	—	4
Guarantee and other	**31**	**5**	**10**	**1**	**—**	**47**	37	6	10	(3)	—	50
Remittances	**33**	**5**	**11**	**—**	**—**	**49**	33	5	10	—	—	48
Underwriting and advisory	**1**	**—**	**19**	**8**	**—**	**28**	1	—	17	13	(4)	27
Fee income	**477**	**331**	**69**	**9**	**—**	**886**	470	334	81	10	(4)	891
Less: fee expense	**(40)**	**(81)**	**(8)**	**(4)**	**—**	**(133)**	(23)	(82)	(3)	(4)	—	(112)
Net fee income	**437**	**250**	**61**	**5**	**—**	**753**	447	252	78	6	(4)	779

1. *Corporate Centre is not an operating segment of the bank. The numbers in this column provide a reconciliation between operating segments and the entity results.*

4 Operating profit

Operating profit is stated after the following items

	Footnote	2023 $m	2022 $m
Income			
Interest recognized on financial assets measured at amortized cost	1	**4,674**	2,966
Interest recognized on financial assets measured at FVOCI	1	**560**	253
Expense			
Interest on financial instruments, excluding interest on financial liabilities held for trading or otherwise mandatorily measured at fair value		**(3,503)**	(1,577)
Interest expense recognized on lease liabilities		**(10)**	(8)
Depreciation on the right-of-use assets		**(33)**	(37)

1. *Interest revenue calculated using the effective interest method comprises interest recognized on financial assets measured at either amortized cost or fair value through other comprehensive income.*

5 Employee compensation and benefits

Total employee compensation

	2023 $m	2022 $m
Wages and salaries	**573**	486
Post-employment benefits	**59**	51
Other	**68**	70
Year ended 31 Dec	**700**	607

Post-employment benefits

We sponsor a number of defined benefit and defined contribution plans providing pension, other retirement and post-employment benefits to eligible employees. Non-pension plans are comprised of healthcare and other post-employment benefits and are not funded.

Income statement charge

	2023 $m	2022 $m
Defined benefit plans	**17**	18
– pension plans	**10**	12
– non-pension plans	**7**	6
Defined contribution pension plans	**42**	33
Year ended 31 Dec	**59**	51

Post-employment defined benefit plans

Principal actuarial assumptions

The principal actuarial financial assumptions used to calculate the bank's obligations under its defined benefit plans are presented in the table below. The 2023 and 2022 assumptions will also form and have formed the basis for measuring periodic costs under the plans in 2024 and 2023 respectively.

		Pension plans		Non-pension plans	
	Footnote	2023 %	2022 %	2023 %	2022 %
Discount rate		**4.65**	5.20	**4.65**	5.20
Rate of pay increase		**3.00**	2.75	**3.00**	2.75
Healthcare cost trend rates – Initial rate		**n/a**	n/a	**4.72**	4.51
Healthcare cost trend rates – Ultimate rate	1	**n/a**	n/a	**4.05**	4.05

1. *The non-pension 'Healthcare cost trend rates – Ultimate rate' is applied from 2040 (2022: Ultimate rate for prior year was applied from 2040).*

The bank determines the discount rates to be applied to its obligations in consultation with the plans' actuaries, on the basis of the current average yield of high quality Canadian corporate bonds, with maturities consistent with those of the defined benefit obligations. At 31 December 2023, the weighted average duration of the defined benefit obligation was 12 years (2022: 12.2 years).

Mortality assumption

Assumptions regarding future mortality have been based on published mortality tables. The life expectancies underlying the defined benefit obligation at the reporting dates are as follows:

	Average years from age 65	
	2023	2022
For a male currently aged 65	**24**	24
For a male currently aged 45	**25**	25
For a female currently aged 65	**25**	25
For a female currently aged 45	**27**	27

Actuarial assumption sensitivities

The following table shows the effect of a ¼ percentage point change ('25bps') in key assumptions on the present value of defined benefit obligation at 31 December:

Pension plans

	2023	2022
	$m	$m
Discount rate		
Change in defined benefit obligation at year-end from a 25 bps increase	**(19)**	(16)
Change in defined benefit obligation at year-end from a 25 bps decrease	**19**	17
Rate of pay increase		
Change in defined benefit obligation at year-end from a 25 bps increase	**2**	2
Change in defined benefit obligation at year-end from a 25 bps decrease	**(2)**	(2)

Non-pension plans

	2023	2022
	$m	$m
Change in defined benefit obligation at year-end from a 25 bps increase in the discount rate	**(4)**	(3)
Change in defined benefit obligation at year-end from a 25 bps decrease in the discount rate	**4**	3

Fair value of plan assets and present value of defined benefit obligations

		Plans for the bank				Group plan[1]	
		Pension plans		Non-pension plans		Pension plan	
		2023	2022	**2023**	2022	**2023**	2022
	Footnote	**$m**	$m	**$m**	$m	**$m**	$m
Fair value of plan assets							
At 1 Jan		**502**	652	**—**	—	**41**	48
Interest on plan assets		**25**	20	**—**	—	**3**	1
Contributions by the employer		**12**	15	**6**	6	**2**	3
Actuarial gains/(losses)		**30**	(152)	**—**	—	**2**	(11)
Benefits paid		**(36)**	(32)	**(6)**	(6)	**(1)**	—
Non-investment expenses		**(1)**	(1)	**—**	—	**—**	—
At 31 Dec		**532**	502	**—**	—	**47**	41
Present value of defined benefit obligations							
At 1 Jan		**(567)**	(750)	**(105)**	(140)	**(41)**	(57)
Transfer of post-retirement benefits from ServCo to the bank	2	**—**	n/a	**(3)**	n/a	**—**	n/a
Current service cost		**(4)**	(7)	**(1)**	(2)	**(1)**	(2)
Interest cost		**(29)**	(22)	**(6)**	(4)	**(2)**	(1)
Actuarial (losses)/gains arising from changes in:		**(34)**	180	**(8)**	36	**(5)**	19
– financial assumptions		**(37)**	183	**(8)**	36	**(4)**	19
– experience adjustments		**3**	1	**—**	—	**(1)**	—
– other	3	**—**	(4)	**—**	—	**—**	—
Benefits paid		**36**	32	**6**	5	**1**	—
At 31 Dec		**(598)**	(567)	**(117)**	(105)	**(48)**	(41)
– funded		**(531)**	(503)	**—**	—	**(48)**	—
– unfunded		**(67)**	(64)	**(117)**	(105)	**—**	—
Other – effect of limit on plan surpluses		**(23)**	(32)	**—**	—	**(4)**	(8)
Net liability	4	**(89)**	(97)	**(117)**	(105)	**(5)**	(8)

1. *The pension plan in which both ServCo and the bank employees actively participate is considered a 'group plan' as the risks are shared by entities under common control. The group plan is funded by contributions from the bank and ServCo and the employees of each entity. The bank and ServCo determine their respective contributions to the defined benefit plan in regards to their employees, based on actuarial valuation.*
2. *On 18 September 2023, ServCo transferred certain shared services to the bank, including post-retirement benefits relating to transferred employees. The transfer was not designed to deliver economic benefits from changes in business activities, but represents a rearrangement of the organization of business activities across legal entities under the common control of HSBC Holdings in its capacity as the ultimate shareholder. The transfer of people and other supporting assets has no significant impact on the overall financial results, position or operations of the bank.*
3. *During 2022, the bank's pension plans purchased a buy-in annuity policy for $331m which resulted in a $4m remeasurement of the net defined benefit plans.*
4. *At 31 December 2023, the bank's share of net liability in the group plan was $4m (2022: $1m).*

Pension plan assets

	Plans for the bank		Group plan	
	2023	2022	**2023**	2022
	$m	$m	**$m**	$m
Debt securities	**1**	—	**—**	—
– Corporate bonds	**1**	—	**—**	—
Investment funds	**214**	187	**44**	37
– Global equity funds	**22**	18	**4**	3
– Fixed income funds	**192**	169	**40**	34
Other	**317**	315	**3**	4
– Buy-in annuities	**312**	303	**2**	2
– Cash and cash equivalents and other	**5**	12	**1**	2
Total	**532**	502	**47**	41

The actual return on plan assets for the year ended 31 December 2023 was a gain of $57m (2022: loss of $134m).

Actuarial valuations for the majority of the bank's pension plans are prepared annually and for non-pension arrangements triennially. The most recent actuarial valuations of the defined benefit pension plans for funding purposes were conducted as at 31 December 2022 and the most recent actuarial valuation of the non-pension arrangements was as at 31 December 2020. Based on the most recent valuations of the plans, the bank expects to make $11.7m of contributions to defined benefit pension plans during 2024.

The defined benefit pension plans expose the bank to risks, including: interest rate risk to the extent that the assets are not invested in bonds that match the plans' obligations, general market risk in respect of its equity investments, and longevity risk in respect of pensioners and beneficiaries living longer than assumed. These risks would be realized through higher pension costs and a higher defined benefit liability.

The bank takes steps to manage these risks through an asset liability management program, which includes reducing interest rate and market risk over time by increasing its asset allocation to fixed income funds and annuities that more closely match the plan's obligations.

In 2022, the bank purchased buy-in annuities to cover the majority of the inactive members in some of the plans for the bank. The annuity provider started covering pensions for the plan members included in the buy-in beginning November 2022. Purchasing the annuity transferred the majority of the risks associated with the pension plan to the annuity provider, including interest rate risk, market risk and longevity risk.

Summary of remeasurement, net on defined benefit obligations

	Pension plans		Non-pension plans	
	2023	2022	**2023**	2022
	$m	$m	**$m**	$m
Actuarial gains/(losses) on assets	**30**	(152)	**—**	—
Actuarial (losses)/gains on liabilities	**(34)**	180	**(8)**	36
Actuarial gains/(losses) on maximum balance sheet item	**11**	(3)	**—**	—
Transfer of post-retirement benefits from ServCo to the bank	**—**	n/a	**(3)**	n/a
Net charge to the consolidated statement of comprehensive income	**7**	25	**(11)**	36

6 Share-based payments

Share-based payments income statement charge

	2023	2022
	$m	$m
Restricted share awards	**20**	6
Cash settled restricted shares and other shares	**1**	—
Year ended 31 Dec	**21**	6

During 2023, $21m was charged to the income statement in respect of share-based payment transactions (2022: $6m) mostly relating to restricted share awards. This was $15m higher than in 2022 due to the acceleration of the vesting schedule and retention share awards as a result of the agreed sale to RBC. These awards are generally granted to employees early in the year following the year to which the award relates. The charge for these awards is recognized from the start of the period to which the service relates to the end of the vesting period. The vesting period is the period over which the employee satisfies certain service conditions in order to become entitled to the award. Due to the staggered vesting profile of certain deferred share awards, the employee becomes entitled to a portion of the award at the end of each year during the vesting period. The income statement charge reflects this vesting profile.

The purpose of restricted share awards is to support retention of key employees, and to reward employee performance and potential. Vesting of restricted share awards is generally subject to continued employment with a vesting period and may be subject to performance conditions.

The weighted average fair value of shares awarded by the HSBC Group for restricted share awards in 2023 was $8.91 per share (2022: $7.49 per share). Fair value is measured at the prevailing market price at the date of the share award.

The bank carries a liability in respect of restricted share awards of $20m at 31 December 2023 (2022: $7m) to its parent, HSBC Holdings, for the funding of shares expected to be issued to settle the award.

7 Tax expense

Analysis of tax expense

	2023	2022
	$m	$m
Current taxation	**310**	272
– federal	**174**	152
– provincial	**136**	120
Deferred taxation	**(17)**	16
– origination and reversal of temporary differences	**(17)**	16
Year ended 31 Dec	**293**	288

The provision for income taxes shown in the consolidated income statement is at a rate that is different than the combined federal and provincial statutory income tax rate for the following reasons:

	2023	2022
	%	%
Combined federal and provincial income tax rate	**27.8**	26.5
Adjustments resulting from:		
– adjustments related to prior years	**(1.9)**	—
– adjustment to the tax rate	**0.2**	0.2
Effective tax rate	**26.1**	26.7

In addition to the amount charged to the income statement, the aggregate amount of current and deferred taxation relating to items that are taken directly to equity was a $138m decrease in equity (2022: $259m increase in equity).

Deferred Taxation

Movement in deferred taxation during the year

	2023	2022
	$m	$m
At 1 Jan	**70**	103
Income statement credit/(charge)	**11**	(21)
Income statement credit - prior period	**6**	4
Other comprehensive income:	**2**	(16)
– share-based payments	**2**	—
– actuarial gains and losses	**—**	(16)
At 31 Dec	**89**	70

Deferred taxation accounted for in the balance sheet

	2023	2022
	$m	$m
Net deferred tax assets	**89**	70
– retirement benefits	**60**	55
– expected credit losses	**63**	69
– property, plant and equipment	**—**	(32)
– assets leased to customers	**(66)**	(54)
– share-based payments	**4**	1
– other temporary differences	**28**	31

The amount of temporary differences for which no deferred tax asset is recognized in the balance sheet is $9.2m (2022: $10.8m). This amount is in respect of capital losses where the recoverability of potential benefits is not considered likely. Due to the agreed sale of the bank to RBC, the capital losses will expire on the date of the change of control.

Deferred tax is not recognized in respect of the bank's investments in subsidiaries where remittance of retained earning is not contemplated, and for those associates where it has been determined that no additional tax will arise. The aggregate amount of temporary differences associated with investments where no deferred tax liability is recognized is $290m (2022: $214m).

On the evidence available, including management's updated analysis and projection of income, there will be sufficient taxable income generated by the bank to support the recognition of its net deferred tax asset.

8 Dividends

Dividends declared on our shares

	Footnotes	2023		2022	
		$ per share	$m	$ per share	$m
Common shares	1	—	—	0.69259	380
Class 1 preferred shares:					
– Series H		1.88630	38	1.08412	22
– Series I	2	—	—	1.15000	16
– Series J	2	1.88880	27	—	—
– Series K		1.36252	13	1.36252	13

1. *On 15 March 2022, the bank returned $600m of common share capital to HSBC Overseas Holdings (UK) Limited.*
2. *On 31 December 2022, HSBC Overseas Holdings (UK) Limited, holder of the preferred shares Series I, exercised their option to convert the preferred shares Series I into preferred shares Series J in accordance with their terms.*

9 Segment analysis

Our business segments

Commercial Banking

Commercial Banking serves customers ranging from small enterprises focused primarily on domestic markets through to corporates operating globally. It supports customers with tailored financial products and services to allow them to operate efficiently and to grow. Services provided include working capital, term loans, payment services and international trade facilitation, among other services, as well as expertise in mergers and acquisitions, and access to financial markets.

Wealth and Personal Banking

Wealth and Personal Banking provides banking and wealth management services for our personal customers to help them to manage their finances and protect and build their financial future. Customer offerings include: liability-driven services (deposits and account services), asset-driven services (credit and lending), and fee-driven and other services (financial advisory and asset management).

Global Banking

Global Banking provides financial services and products to corporates, governments and institutions. Our comprehensive range of products and solutions can be combined and customized to meet our customers' specific objectives - from primary equity and debt capital to global trade and receivables finance.

Markets and Securities Services

Markets and Securities Services enables our corporate and institutional clients to access financial markets and liquidity, unlock investment opportunities, manage risk and transact seamlessly. We bring together financing solutions, sales and trading, research, clearing and settlement, global and direct custody, and asset servicing.

Profit/(loss) for the year

	2023					
	Commercial Banking	Wealth and Personal Banking	Global Banking	Markets and Securities Services	Corporate Centre[1]	Total
	$m	$m	$m	$m	$m	$m
Net interest income	747	800	143	41	(10)	1,721
Net fee income	437	250	61	5	–	753
Net income from financial instruments held for trading	48	58	1	31	11	149
Other income	3	6	1	2	19	31
Total operating income	**1,235**	**1,114**	**206**	**79**	**20**	**2,654**
Change in expected credit losses and other credit impairment charges - (charge)/release	(33)	(39)	9	–	–	(63)
Net operating income	**1,202**	**1,075**	**215**	**79**	**20**	**2,591**
– external	1,387	925	121	139	19	2,591
– inter-segment	(185)	150	94	(60)	1	–
Total operating expenses	**(445)**	**(711)**	**(82)**	**(50)**	**(182)**	**(1,470)**
Profit/(loss) before income tax expense	**757**	**364**	**133**	**29**	**(162)**	**1,121**

1. *Corporate Centre is not an operating segment of the bank. The numbers in this column provide a reconciliation between operating segments and the entity results.*

Profit/(loss) for the year

	2022					
	Commercial Banking	Wealth and Personal Banking	Global Banking	Markets and Securities Services	Corporate Centre[1]	Total
	$m	$m	$m	$m	$m	$m
Net interest income	712	709	160	49	4	1,634
Net fee income	447	252	78	6	(4)	779
Net income from financial instruments held for trading	37	33	(15)	48	(4)	99
Other income	1	16	—	1	18	36
Total operating income	1,197	1,010	223	104	14	2,548
Change in expected credit losses and other credit impairment charges - (charge)	(73)	(33)	(4)	—	—	(110)
Net operating income	1,124	977	219	104	14	2,438
– external	1,178	1,023	108	115	14	2,438
– inter-segment	(54)	(46)	111	(11)	—	—
Total operating expenses	(411)	(663)	(88)	(51)	(145)	(1,358)
Profit/(loss) before income tax expense	713	314	131	53	(131)	1,080

1. *Corporate Centre is not an operating segment of the bank. The numbers in this column provide a reconciliation between operating segments and the entity results.*

Balance sheet information

	Commercial Banking	**Wealth and Personal Banking**	**Global Banking**	**Markets and Securities Services**	**Corporate Centre[1]**	**Total**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**
At 31 Dec 2023						
Loans and advances to customers	**34,281**	**36,290**	**3,522**	**—**	**—**	**74,093**
Customers' liability under acceptances	**2,202**	**12**	**381**	**—**	**—**	**2,595**
Total external assets	**47,389**	**49,090**	**8,955**	**13,865**	**411**	**119,710**
Customer accounts	**27,901**	**46,084**	**8,941**	**310**	**—**	**83,236**
Acceptances	**2,206**	**12**	**381**	**—**	**—**	**2,599**
Total external liabilities	**35,404**	**54,247**	**11,732**	**10,981**	**311**	**112,675**
At 31 Dec 2022						
Loans and advances to customers	34,027	36,713	4,122	—	—	74,862
Customers' liability under acceptances	2,795	12	340	—	—	3,147
Total external assets	48,282	51,701	9,004	18,866	449	128,302
Customer accounts	30,008	45,094	6,871	280	—	82,253
Acceptances	2,804	12	340	—	—	3,156
Total external liabilities	39,919	55,889	10,187	16,182	207	122,384

1. *Corporate Centre is not an operating segment of the bank. The numbers in this column provide a reconciliation between operating segments and the entity results.*

10 Analysis of financial assets and liabilities by measurement basis

Financial assets and financial liabilities are measured on an ongoing basis at either fair value or amortized cost. The following tables analyze the carrying amount of financial assets and liabilities by category and by balance sheet heading:

		2023				
		Financial instruments measured at FVPL	**Debt instruments measured at FVOCI**	**Equity instruments measured at FVOCI**	**Financial instruments measured at amortized cost**	**Total**
	Footnote	**$m**	**$m**	**$m**	**$m**	**$m**
Financial assets						
Cash and balances at central bank		**—**	**—**	**—**	**7,089**	**7,089**
Items in the course of collection from other banks		**—**	**—**	**—**	**12**	**12**
Trading assets		**3,253**	**—**	**—**	**—**	**3,253**
Other financial assets mandatorily measured at fair value through profit or loss		**20**	**—**	**—**	**—**	**20**
Derivatives		**3,964**	**—**	**—**	**—**	**3,964**
Loans and advances to banks		**—**	**—**	**—**	**393**	**393**
Loans and advances to customers	1	**—**	**—**	**—**	**74,093**	**74,093**
Reverse repurchase agreements – non-trading		**—**	**—**	**—**	**3,595**	**3,595**
Financial investments		**—**	**12,352**	**10**	**10,058**	**22,420**
Customers' liability under acceptances		**—**	**—**	**—**	**2,595**	**2,595**
Total		**7,237**	**12,352**	**10**	**97,835**	**117,434**
Financial liabilities						
Deposits by banks		**—**	**—**	**—**	**360**	**360**
Customer accounts		**—**	**—**	**—**	**83,236**	**83,236**
Repurchase agreements – non-trading		**—**	**—**	**—**	**3,654**	**3,654**
Items in the course of transmission to other banks		**—**	**—**	**—**	**524**	**524**
Trading liabilities		**1,870**	**—**	**—**	**—**	**1,870**
Derivatives		**4,095**	**—**	**—**	**—**	**4,095**
Debt securities in issue		**—**	**—**	**—**	**10,174**	**10,174**
Acceptances		**—**	**—**	**—**	**2,599**	**2,599**
Subordinated liabilities		**—**	**—**	**—**	**1,011**	**1,011**
Total		**5,965**	**—**	**—**	**101,558**	**107,523**

		2022				
Financial assets						
Cash and balances at central bank		—	—	—	6,326	6,326
Items in the course of collection from other banks		—	—	—	9	9
Trading assets		4,296	—	—	—	4,296
Other financial assets mandatorily measured at fair value through profit or loss		18	—	—	—	18
Derivatives		6,220	—	—	—	6,220
Loans and advances to banks		—	—	—	344	344
Loans and advances to customers	1	—	—	—	74,862	74,862
Reverse repurchase agreements – non-trading		—	—	—	6,003	6,003
Financial investments		—	15,024	15	8,361	23,400
Customers' liability under acceptances		—	—	—	3,147	3,147
Total		10,534	15,024	15	99,052	124,625
Financial liabilities						
Deposits by banks		—	—	—	712	712
Customer accounts		—	—	—	82,253	82,253
Repurchase agreements – non-trading		—	—	—	4,435	4,435
Items in the course of transmission to other banks		—	—	—	227	227
Trading liabilities		3,732	—	—	—	3,732
Derivatives		6,575	—	—	—	6,575
Debt securities in issue		—	—	—	15,735	15,735
Acceptances		—	—	—	3,156	3,156
Subordinated liabilities		—	—	—	1,011	1,011
Total		10,307	—	—	107,529	117,836

1. *Includes finance lease receivables that are measured in accordance with IFRS 16. Refer to note 27 for details.*

11 Trading assets

	Footnote	2023 $m	2022 $m
Debt securities			
– Canadian and Provincial Government bonds	1	**2,844**	3,599
– treasury and other eligible bills		**322**	323
– other debt securities		**87**	374
At 31 Dec		**3,253**	4,296
Trading assets		**3,253**	4,296
– not subject to repledge or resale by counterparties		**1,022**	1,438
– which may be repledged or resold by counterparties		**2,231**	2,858

1. *Including government guaranteed bonds.*

Term to maturity of debt securities

	2023 $m	2022 $m
Less than 1 year	**981**	1,106
1-5 years	**1,492**	2,066
5-10 years	**540**	906
Over 10 years	**240**	218
At 31 Dec	**3,253**	4,296

12 Derivatives

Fair values of derivatives by product contract type held

	Assets			Liabilities		
	Held for trading $m	Hedge accounting $m	Total $m	Held for trading $m	Hedge accounting $m	Total $m
Foreign exchange	**1,158**	**115**	**1,273**	**1,124**	**41**	**1,165**
Interest rate	**2,461**	**229**	**2,690**	**2,509**	**420**	**2,929**
Commodity	**1**	**—**	**1**	**1**	**—**	**1**
At 31 Dec 2023	**3,620**	**344**	**3,964**	**3,634**	**461**	**4,095**
Foreign exchange	2,051	—	2,051	1,925	66	1,991
Interest rate	3,738	431	4,169	3,846	738	4,584
Commodity	—	—	—	—	—	—
At 31 Dec 2022	5,789	431	6,220	5,771	804	6,575

Notional amounts by remaining term to maturity of the derivative portfolio

	Held for trading				Hedge accounting				Total
	Less than 1 year	1 - 5 years	Over 5 years	Total	Less than 1 year	1 - 5 years	Over 5 years	Total	
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Interest rate contracts	**96,649**	**48,342**	**28,686**	**173,677**	**9,191**	**20,025**	**—**	**29,216**	**202,893**
– futures	**1,266**	**64**	**120**	**1,450**	**—**	**—**	**—**	**—**	**1,450**
– swaps	**95,354**	**48,239**	**28,566**	**172,159**	**9,191**	**20,025**	**—**	**29,216**	**201,375**
– caps	**—**	**39**	**—**	**39**	**—**	**—**	**—**	**—**	**39**
– other interest rate	**29**	**—**	**—**	**29**	**—**	**—**	**—**	**—**	**29**
Foreign exchange contracts	**86,389**	**13,801**	**222**	**100,412**	**—**	**4,019**	**—**	**4,019**	**104,431**
– spot	**2,435**	**—**	**—**	**2,435**	**—**	**—**	**—**	**—**	**2,435**
– forward	**75,717**	**10,402**	**—**	**86,119**	**—**	**—**	**—**	**—**	**86,119**
– currency swaps and options	**8,237**	**3,399**	**222**	**11,858**	**—**	**4,019**	**—**	**4,019**	**15,877**
Other derivative contracts	**662**	**370**	**—**	**1,032**	**—**	**—**	**—**	**—**	**1,032**
– commodity	**662**	**370**	**—**	**1,032**	**—**	**—**	**—**	**—**	**1,032**
At 31 Dec 2023	**183,700**	**62,513**	**28,908**	**275,121**	**9,191**	**24,044**	**—**	**33,235**	**308,356**
Interest rate contracts	164,549	75,601	36,700	276,850	6,319	24,567	29	30,915	307,765
– futures	601	1,329	65	1,995	—	—	—	—	1,995
– swaps	163,777	74,231	36,635	274,643	6,319	24,567	29	30,915	305,558
– caps	—	41	—	41	—	—	—	—	41
– other interest rate	171	—	—	171	—	—	—	—	171
Foreign exchange contracts	118,410	13,867	222	132,499	—	2,534	—	2,534	135,033
– spot	2,004	—	—	2,004	—	—	—	—	2,004
– forward	99,623	9,181	—	108,804	—	—	—	—	108,804
– currency swaps and options	16,783	4,686	222	21,691	—	2,534	—	2,534	24,225
Other derivative contracts	6	3	—	9	—	—	—	—	9
– commodity	6	3	—	9	—	—	—	—	9
At 31 Dec 2022	282,965	89,471	36,922	409,358	6,319	27,101	29	33,449	442,807

The following tables summarize the fair values of the bank's derivative portfolio at 31 December segregated between derivatives that are in a favourable or receivable position and those in an unfavourable or payable position. Fair values of derivative instruments are determined using observable inputs (note 23).

	Held for trading			Hedge accounting			
	Favourable position	Unfavourable position	Net position	Favourable position	Unfavourable position	Net position	Total net position
	$m	$m	$m	$m	$m	$m	$m
Interest rate contracts	**2,461**	**(2,509)**	**(48)**	**229**	**(420)**	**(191)**	**(239)**
– swaps	**2,461**	**(2,509)**	**(48)**	**229**	**(420)**	**(191)**	**(239)**
– other interest rate	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Foreign exchange contracts	**1,158**	**(1,124)**	**34**	**115**	**(41)**	**74**	**108**
– spot	**3**	**(3)**	**—**	**—**	**—**	**—**	**—**
– forward	**1,060**	**(1,027)**	**33**	**—**	**—**	**—**	**33**
– currency swaps and options	**95**	**(94)**	**1**	**115**	**(41)**	**74**	**75**
Other derivative contracts	**1**	**(1)**	**—**	**—**	**—**	**—**	**—**
– commodity	**1**	**(1)**	**—**	**—**	**—**	**—**	**—**
At 31 Dec 2023	**3,620**	**(3,634)**	**(14)**	**344**	**(461)**	**(117)**	**(131)**
Interest rate contracts	3,738	(3,846)	(108)	431	(738)	(307)	(415)
– swaps	3,735	(3,846)	(111)	431	(738)	(307)	(418)
– other interest rate	3	—	3	—	—	—	3
Foreign exchange contracts	2,051	(1,925)	126	—	(66)	(66)	60
– spot	3	(1)	2	—	—	—	2
– forward	1,784	(1,660)	124	—	—	—	124
– currency swaps and options	264	(264)	—	—	(66)	(66)	(66)
Other derivative contracts	—	—	—	—	—	—	—
– commodity	—	—	—	—	—	—	—
At 31 Dec 2022	5,789	(5,771)	18	431	(804)	(373)	(355)

Use of derivatives

The bank undertakes derivative activities for three primary purposes: to create risk management solutions for clients, to manage the portfolio risks arising from client business, and to manage and hedge our own risks. Most of the bank's derivative exposures arise from sales and trading activities and are treated as traded risk for market risk management purposes.

The bank's derivative activities give rise to open positions in portfolios of derivatives. These positions are managed constantly to ensure that they remain within acceptable risk levels in accordance with the bank's approved risk management policies, with offsetting deals being used

to achieve this where necessary. When entering into derivative transactions, the bank employs the same credit risk management procedures that are used for traditional lending to assess and approve potential credit exposures.

Analysis of the derivative portfolio and related credit exposure

	2023				2022			
	Notional amount[1]	Positive replacement cost[2]	Credit equivalent amount[3]	Risk-weighted balance[4]	Notional amount[1]	Positive replacement cost[2]	Credit equivalent amount[3]	Risk-weighted balance[4]
	$m	$m	$m	$m	$m	$m	$m	$m
Interest rate contracts	**202,893**	**199**	**410**	**82**	307,765	137	316	55
– futures	**1,450**	**—**	**1**	**—**	1,995	—	—	—
– swaps	**201,375**	**199**	**409**	**82**	305,558	137	313	55
– caps	**39**	**—**	**—**	**—**	41	—	—	—
– other interest rate contracts	**29**	**—**	**—**	**—**	171	—	3	—
Foreign exchange contracts	**104,431**	**324**	**1,716**	**494**	135,033	380	2,221	528
– spot	**2,435**	**—**	**—**	**—**	2,004	—	—	—
– forward	**86,119**	**301**	**1,533**	**429**	108,804	288	1,911	426
– currency swaps and options	**15,877**	**23**	**183**	**65**	24,225	92	310	102
Other derivative contracts	**1,032**	**—**	**—**	**—**	9	—	—	—
– commodity	**1,032**	**—**	**—**	**—**	9	—	—	—
At 31 Dec	**308,356**	**523**	**2,126**	**576**	442,807	517	2,537	583

1. *The notional contract amounts of derivatives held for trading purposes and derivatives designated in hedge accounting relationships indicate the nominal value of transactions outstanding at the balance sheet date; they do not represent amounts at risk.*
2. *Positive replacement cost represents the total fair value of all outstanding contracts in a gain position after factoring in the master netting agreements.*
3. *Credit equivalent amount is the current replacement cost plus an amount for future credit exposure associated with the potential for future changes in currency and interest rates. The future credit exposure is calculated using a formula prescribed by OSFI in its capital adequacy guidelines.*
4. *Risk-weighted balance represents a measure of the amount of regulatory capital required to support the derivative activities. It is estimated by risk weighting the credit equivalent amounts according to the credit worthiness of the counterparties using factors prescribed by OSFI in its capital adequacy guidelines.*

Interest rate futures are exchange-traded. All other contracts are over-the-counter.

Derivatives held for trading

Most of the bank's derivative transactions relate to sales and trading activities. Sales activities include the structuring and marketing of derivative products to customers to enable them to take, transfer, modify or reduce current or expected risks. Trading activities in derivatives are entered into principally for the purpose of generating profits from short-term fluctuations in price or margin. Positions may be traded actively or be held over a period of time to benefit from expected changes in currency rates, interest rates, equity prices or other market parameters. Trading includes market-making, positioning and arbitrage activities. Market-making entails quoting bid and offer prices to other market participants for the purpose of generating revenues based on spread and volume; positioning means managing market risk positions in the expectation of benefiting from favourable movements in prices, rates or indices; arbitrage involves identifying and profiting from price differentials between markets and products.

Other derivatives classified as held for trading include non-qualifying hedging derivatives, ineffective hedging derivatives and the components of hedging derivatives that are excluded from assessing hedge effectiveness. Non-qualifying hedging derivatives are entered into for risk management purposes as described in the following section but do not meet the criteria for hedge accounting.

Derivatives in hedge accounting relationships

The bank uses derivatives (principally interest rate swaps) for hedging purposes in the management of its own asset and liability portfolios and structural positions. This enables the bank to optimize the overall cost to the bank of accessing debt capital markets, and to mitigate the market risk which would otherwise arise from structural imbalances in the maturity and other profiles of its assets and liabilities.

Fair value hedges

The bank's fair value hedges principally consist of interest rate swaps that are used to protect against changes in the fair value of fixed-rate financial instruments due to movements in market interest rates. For qualifying fair value hedges, all changes in the fair value of the derivative and in the fair value of the item in relation to the risk being hedged are recognized in the income statement. If the hedge relationship is terminated, the fair value adjustment to the hedged item continues to be reported as part of the basis of the item and is amortized to the income statement as a yield adjustment over the remainder of the hedging period.

Hedging instrument by hedged risk

	Hedging Instrument				
		Carrying amount			
	Notional amount[1]	Assets	Liabilities	Balance sheet presentation	Change in fair value[2]
Hedged Risk	$m	$m	$m		$m
Interest rate	**10,721**	**90**	**112**	**Derivatives**	**(170)**
At 31 Dec 2023	**10,721**	**90**	**112**		**(170)**
Interest rate	14,479	431	34	Derivatives	396
At 31 Dec 2022	14,479	431	34		396

1. *The notional contract amounts of derivatives designated in qualifying hedge accounting relationships indicate the nominal value of transactions outstanding at the balance sheet date; they do not represent amounts at risk.*
2. *Used in effectiveness testing; comprising the full fair value change of the hedging instrument not excluding any component.*

Hedged item by hedged risk

	Hedged Item						Ineffectiveness	
	Carrying amount		Accumulated fair value hedge adjustments included in carrying amount			Change in fair value[1]	Recognized in profit and loss	
	Assets	Liabilities	Assets	Liabilities	Balance sheet presentation			Profit and loss presentation
Hedged Risk	$m	$m	$m	$m		$m	$m	
Interest rate	**10,300**	**–**	**32**	**–**	**Financial investments**	**184**	**(1)**	**Net income from financial instruments held for trading**
	–	**88**	**–**	**(1)**	**Debt securities in issue**	**(16)**		
At 31 Dec 2023	**10,300**	**88**	**32**	**(1)**		**168**	**(1)**	
Interest rate	11,658	–	(415)	–	Financial investments	(433)	(3)	Net income from financial instruments held for trading
	–	2,077	–	27	Debt securities in issue	33		
At 31 Dec 2022	11,658	2,077	(415)	27		(400)	(3)	

1. *Used in effectiveness assessment; comprising amount attributable to the designated hedged risk that can be a risk component.*

Sources of hedge ineffectiveness may arise from basis risk including but not limited to the discount rates used for calculating the fair value of derivatives, hedges using instruments with a non-zero fair value and notional and timing differences between the hedged items and hedging instruments.

For some debt securities held, the bank manages interest rate risk in a dynamic risk management strategy. The assets in scope of this strategy are high quality fixed-rate debt securities, which may be sold to meet liquidity and funding requirements.

The interest rate risk of fixed rate debt securities issued by the bank is managed in a non-dynamic risk management strategy.

Timing of the notional amounts and average rates of the hedging instruments (excluding dynamic hedges)

Hedged risk	Notional amount More than 3 months but less than 1 year $m	Rate (average) %	Notional amount More than 1 year but less than 5 years $m	Rate (average) %
Interest rate				
– swaps	15	4.96	74	4.30
At 31 Dec 2023	**15**		**74**	
Interest rate				
– swaps	1,015	0.26	1,090	3.10
At 31 Dec 2022	1,015		1,090	

Cash flow hedges

The bank's cash flow hedging instruments consist principally of interest rate swaps and cross-currency swaps that are used to manage the variability in future interest cash flows of non-trading financial assets and liabilities, arising due to changes in market interest rates and foreign-currency basis.

The bank applies macro cash flow hedging strategies for interest-rate risk exposures on portfolios of replenishing current and forecasted issuances of non-trading assets and liabilities that bear interest at variable rates, including rolling such instruments. The amounts and timing of future cash flows, representing both principal and interest flows, are projected for each portfolio of financial assets and liabilities on the basis of their contractual terms and other relevant factors, including estimates of prepayments and defaults. The aggregate cash flows representing both principal balances and interest cash flows across all portfolios are used to determine the effectiveness and ineffectiveness. Macro cash flow hedges are considered to be dynamic hedges.

The bank also hedges the variability in future cash-flows on foreign-denominated financial assets and liabilities arising due to changes in foreign exchange market rates with cross-currency swaps; these are considered non-dynamic hedges.

At 31 December 2023, the bank has assessed the fair value losses recognized in other comprehensive income which are attributable to derivatives designated in cash flow hedging relationships and has determined that the losses are expected to be recoverable over the expected term of the hedge accounting relationships. Accordingly, the bank transfers the effective amounts on cash flow hedges to the income statement over the period in which designated interest or foreign exchange risk impacts net income. During the year ended 31 December 2023, the bank reclassified $422m (2022: $(22)m) on active hedges and $32m (2022: $1m) on previously terminated cash flow hedges to the income statement.

Of the remaining amount in the cash flow hedging reserve in equity of $285m (2022: $538m), an amount of $87m (2022: nil) relates to IBOR cash flow hedging relationships, where the hedging derivative was previously terminated, which will be reclassified to income over the remaining term of the original hedging relationship as the amounts are expected to be recoverable, with the effective portion of $198m (2022: $538m) on active hedges remaining in the cash flow hedging reserve until the hedged items impact net income.

Hedging instrument by hedged risk

	Hedging Instrument					Hedged Item	Ineffectiveness	
		Carrying amount						
	Notional amount[1]	Assets	Liabilities	Balance sheet presentation	Change in fair value	Change in fair value	Recognized in profit and loss	Profit and loss presentation
Hedged Risk	$m	$m	$m		$m	$m	$m	$m
Foreign currency	**4,019**	**115**	**41**	**Derivatives**	**67**	**(67)**	**—**	**Net income from financial instruments held for trading**
Interest rate	**18,495**	**139**	**308**	**Derivatives**	**(164)**	**169**	**6**	
At 31 Dec 2023	**22,514**	**254**	**349**		**(97)**	**102**	**6**	
Foreign currency	2,534	—	65	Derivatives	(58)	57	—	Net income from financial instruments held for trading
Interest rate	16,437	—	704	Derivatives	(664)	652	(12)	
At 31 Dec 2022	18,971	—	769		(722)	709	(12)	

1. *The notional contract amounts of derivatives designated in qualifying hedge accounting relationships indicate the nominal value of transactions outstanding at the balance sheet date; they do not represent amounts at risk.*

Sources of hedge ineffectiveness may arise from basis risk, including but not limited to timing differences between the hedged items and hedging instruments and hedges using instruments with a non-zero fair value.

Reconciliation of equity and analysis of other comprehensive income by risk type

	2023		2022	
	Interest rate	Foreign Currency	Interest rate	Foreign Currency
	$m	$m	$m	$m
Cash flow hedging reserve at 1 Jan	**(455)**	**(83)**	(8)	7
Fair value (losses)/gains	**(170)**	**67**	(652)	(57)
Fair value losses/(gains) reclassified from the cash flow hedge reserve to the income statement	**444**	**10**	44	(65)
Income taxes	**(77)**	**(21)**	161	32
Cash flow hedging reserve at 31 Dec	**(258)**	**(27)**	(455)	(83)

Interest Rate Benchmark Reform: Amendments to IFRS 9 and IAS 39 'Financial Instruments'

The bank has adopted both the first set of amendments ('Phase 1') and the second set of amendments ('Phase 2') to IFRS 9 and IAS 39 applicable to hedge accounting. The hedge accounting relationships that are affected by Phase 1 and Phase 2 amendments are presented in the balance sheet as 'Financial investments', 'Loans and advances to customers', 'Debt securities in issue' and 'Deposits by banks'. The notional value of the derivatives impacted by the IBORs reform, including those designated in hedge accounting relationships, is disclosed on page 56 in the section 'Financial instruments impacted by IBOR reform'. For further details on IBOR transition, see page 56.

As part of risk management, the bank had transitioned US dollar LIBOR hedging instruments to USD RFR.

The Bank of Canada's Canadian Alternative Reference Rate ('CARR') working group was tasked with analyzing the current status of the Canadian Dollar Offered Rate ('CDOR') and making recommendations. On 16 May 2022, Refinitiv Benchmark Services (UK) Limited ('RBSL'), the administrator CDOR, announced that it will cease the calculation and publication of CDOR after 28 June 2024. This decision aligns with the recommendation made by the Bank of Canada's CARR working group in December 2021, and follows a broad public consultation from RBSL regarding that recommendation. Concurrently, OSFI published their expectation that Federally Regulated Financial Institutions transition all new derivatives and securities to an alternative benchmark rate by 30 June 2023 and all loan agreements by 28 June 2024. The bank will continue to monitor the situation closely. CDOR hedging derivatives have transitioned to CORRA in 2023.

The bank expanded its CORRA-linked product offering and implemented a transition program of CDOR-linked products.

During the third quarter of 2023, the bank commenced the transition of CDOR-based cash flow hedges to CORRA replacement rate hedge accounted derivatives for cash flow hedges, based on RBSL's 2022 announcement that it will cease the calculation and publication of CDOR after June 2024. As the product offerings continued, using CORRA as the replacement rate, no amount was recycled from other comprehensive income to the income statement. In addition, the bank terminated a number of its CDOR-based fair value hedges and commenced the amortization of past basis adjustments of $198m (2022: nil) which will continue until the earlier of maturity of the hedged fixed rate bonds or sale of the bonds, with amortization recorded to interest expense of $23m during 2023 (2022: nil). As a result, at 31 December 2023, the bank does not have any remaining CDOR-based active fair value hedges.

As part of its risk management practices, the bank enters into cash flow hedges and fair value hedges which involve the use of CORRA derivatives. All active cash flow hedges and fair value hedges transited to CORRA in 2023, with hedged risks on previously terminated cash flow hedges expected to transition not later than the CDOR cessation date.

Hedging instrument impacted by IBOR reform

	Hedging instrument				
	Impacted by IBOR Reform				
	USD	CAD	Total	Not Impacted by IBOR Reform	Notional contract amount[1]
	$m	$m	$m	$m	$m
Fair Value Hedges	—	—	—	**10,721**	**10,721**
Cash Flow Hedges	—	—	—	**22,514**	**22,514**
At 31 Dec 2023	—	—	—	**33,235**	**33,235**
Fair Value Hedges	1,015	9,095	10,110	4,369	14,479
Cash Flow Hedges	—	16,437	16,437	2,534	18,971
At 31 Dec 2022	1,015	25,532	26,547	6,903	33,450

1. *The notional contract amounts of derivatives designated in qualifying hedge accounting relationships indicate the nominal value of transactions outstanding at the balance sheet date; they do not represent amounts at risk.*

13 Financial investments

Carrying amount of financial investments

		2023	2022
	Footnote	$m	$m
Financial investments measured at fair value through other comprehensive income		**12,362**	15,039
– Canadian and Provincial Government bonds	1	**7,628**	10,577
– international Government bonds	1	**2,370**	2,678
– other debt securities issued by banks and other financial institutions		**1,139**	1,578
– treasury and other eligible bills		**1,215**	191
– equity securities		**10**	15
Debt instruments measured at amortized cost		**10,058**	8,361
– Canadian and Provincial Government bonds		**5,862**	5,660
– international Government bonds		**2,348**	2,003
– other debt securities issued by banks and other financial institutions		**693**	698
– treasury and other eligible bills		**1,155**	—
At 31 Dec		**22,420**	23,400
Financial investments			
– not subject to repledge or resale by counterparties		**22,309**	23,163
– which may be repledged or resold by counterparties		**111**	237
At 31 Dec		**22,420**	23,400

1. *Includes government guaranteed bonds.*

Term to maturity of financial investments

	2023	2022
	$m	$m
Less than 1 year	**8,669**	4,504
1-5 years	**13,741**	18,845
5-10 years	**—**	36
No specific maturity	**10**	15
At 31 Dec	**22,420**	23,400

14 Property, plant and equipment

	Leasehold improvements	Equipment, fixtures and fittings	Right-of-use assets[1]	Total
	$m	$m	$m	$m
Cost				
At 1 Jan 2023	**120**	**77**	**367**	**564**
Additions at cost	**4**	**9**	**1**	**14**
Disposals and write-offs	**(46)**	**(36)**	**(1)**	**(83)**
Net remeasurements	**—**	**—**	**37**	**37**
At 31 Dec 2023	**78**	**50**	**404**	**532**
Accumulated depreciation and impairment				
At 1 Jan 2023	**(67)**	**(43)**	**(122)**	**(232)**
Depreciation and impairment charge for the year	**(11)**	**(12)**	**(33)**	**(56)**
Disposals and write-offs	**46**	**34**	**1**	**81**
At 31 Dec 2023	**(32)**	**(21)**	**(154)**	**(207)**
Net carrying amount at 31 Dec 2023	**46**	**29**	**250**	**325**
Cost				
At 1 Jan 2022	96	57	317	470
Additions at cost	26	20	36	82
Disposals and write-offs	(2)	—	(26)	(28)
Net remeasurements	—	—	40	40
At 31 Dec 2022	120	77	367	564
Accumulated depreciation and impairment				
At 1 Jan 2022	(57)	(34)	(116)	(207)
Depreciation and impairment charge for the year	(16)	(11)	(37)	(64)
Disposals and write-offs	6	2	31	39
At 31 Dec 2022	(67)	(43)	(122)	(232)
Net carrying amount at 31 Dec 2022	53	34	245	332

1. *The recognized right-of-use assets relate to the lease of properties for our branches and offices.*

15 Investments in subsidiaries

At 31 December 2023, HSBC Bank Canada wholly-owned the following principal subsidiaries:

Subsidiary	Place of incorporation	Carrying value of voting shares[1]
		$m
HSBC Finance Mortgages Inc.	Toronto, Ontario, Canada	410
HSBC Trust Company (Canada)	Vancouver, British Columbia, Canada	201
HSBC Securities (Canada) Inc.	Toronto, Ontario, Canada	187
HSBC Mortgage Corporation (Canada)	Vancouver, British Columbia, Canada	45
HSBC Global Asset Management (Canada) Limited	Vancouver, British Columbia, Canada	19
HSBC Private Investment Counsel (Canada) Inc.	Toronto, Ontario, Canada	9

1. *The carrying value of voting shares is the bank's equity in such investments.*

16 Structured entity and other arrangements

Mortgage Backed Securities

The bank periodically creates National Housing Act Mortgage Backed Securities with certain of the bank's mortgages identified as collateral for such securities and issues these legally created securities to either the Canada Housing Trust or directly to the Canada Mortgage and Housing Corporation through the Government of Canada's Insured Mortgage Purchase Program. The Canada Housing Trust is a structured entity sponsored by Canada Mortgage and Housing Corporation which issues Canada Mortgage Bonds. The bank does not have any decision-making power over Canada Housing Trust or the Canada Mortgage and Housing Corporation. The bank's only exposure to the Trust and the Corporation is derived from the contractual arrangements arising from the legal transfer of the mortgage backed securities and related collateral. Additional information can be found in note 24 in respect to assets securitized.

HSBC Investment funds

The bank establishes and manages investment funds such as mutual funds and pooled funds, acts as an investment manager and earns market-based management fees. The bank does not consolidate those mutual and pooled funds in which our interests indicate that we are exercising our decision making power as an agent of the other unit holders. Seed capital is provided from time to time to HSBC managed investment funds for initial launch. However, the bank continues to earn fees from asset management services provided to these entities. During 2023, the bank earned fee income of $213m from its involvement with these asset management entities (2022: $221m). The total assets under management ('AUM') in these entities at 31 December 2023 was $18,736m (31 December 2022: $17,762m). The bank consolidates those investment funds in which it has power to direct the relevant activities of the funds and in which the seed capital, or the

units held by the bank, are significant relative to the total variability of returns of the funds such that the bank is deemed to be a principal rather than an agent. During the years ended December 31, 2023 and 2022, we have not provided any financial or non-financial support to any consolidated or unconsolidated investment funds when we were not contractually obligated to do so. Furthermore, we have no intention to provide such support in the future.

HSBC Mortgage Fund

The bank periodically transfers mortgages to the HSBC Mortgage Fund (the 'fund') in accordance with the investment parameters of the fund and recognizes a liability for mortgages sold with recourse for the initial proceeds received. The bank provides an undertaking to repurchase mortgages which are in arrears for a period that is greater than 90 days and repurchases mortgages in certain circumstances when an individual mortgage is prepaid in full. In addition to these obligations the bank provides a liquidity arrangement to the HSBC Mortgage Fund whereby if the level of redemption requests by unitholders cannot be met by the fund the bank will either repurchase such funds as are deemed necessary by the HSBC Mortgage Fund to satisfy the liquidity requirements arising from unitholder requests or facilitate the purchase of such mortgages by a third party at the bank's discretion. The bank has not received any such liquidity requests from the fund in respect of unitholder redemptions. The fund is not consolidated as the bank does not have control over the fund as it has insufficient absolute returns or variability of returns to consolidate the fund. Information on mortgages sold with recourse can be found in note 24.

HSBC Canadian Covered Bond (Legislative) Guarantor Limited Partnership

HSBC Canadian Covered Bond (Legislative) Guarantor Limited Partnership ('the Guarantor LP') was established by the bank to support our covered bond program by providing a direct, unconditional and irrevocable guarantee for the payment of interest and principal due under the covered bond program. The Guarantor LP holds residential mortgages acquired from the bank for the purpose of meeting its obligations under the covered bond guarantee. The entity is consolidated as the bank has the decision-making power over its activities and remains exposed to the performance of the underlying mortgages.

See note 20 for further details on the covered bond program.

HSBC Canadian Covered Bond (Legislative) GP Inc.

The HSBC Canadian Covered Bond (Legislative) GP Inc. ('the Managing General Partner') is wholly-owned by the bank and is responsible for the day-to-day operations of the Guarantor LP. The directors and officers of the Managing General Partner are the bank's employees.

17 Other assets

	2023	2022
	$m	$m
Accounts receivable	**512**	1,121
Settlement accounts	**501**	463
Cash collateral	**391**	997
Other	**18**	10
At 31 Dec	**1,422**	2,591

18 Goodwill and intangible assets

	2023	2022
	$m	$m
Goodwill	**23**	23
Computer software	**9**	137
At 31 Dec	**32**	160

Goodwill

Impairment testing

The bank's impairment test in respect of goodwill allocated to a cash-generating unit ('CGU') is performed annually in early January, unless there is an earlier indication of potential impairment. At 31 December 2023, the net recoverable amount exceeds the carry value of the cash-generating unit including goodwill. Therefore, no goodwill impairment was recognized in 2023 (2022: nil).

Basis of the recoverable amount

The recoverable amount of CGU to which goodwill has been allocated is based on value in use ('VIU'). The VIU is calculated by discounting management's cash flow projections for the CGU.

Computer software

As a consequence of the agreed sale to RBC, the bank has determined that the estimated remaining useful life of the internally generated computer software is less than 1 year considering that they relate to HSBC Group proprietary systems which are not expected to be transferred on closing to RBC. Incremental amortization due to a change in estimate amounts to $79m for 2023 (2022: $11m). Additionally, $24m of work in progress that will not be put to use due to the agreed sale was impaired in 2022.

19 Trading liabilities

	2023	2022
	$m	$m
Net short positions in securities	**1,870**	3,732
At 31 Dec	**1,870**	3,732

20 Debt securities in issue

	2023	2022
	$m	$m
Bonds and medium term notes	**6,097**	11,432
Covered bonds	**4,010**	3,887
Money market instruments	**67**	416
At 31 Dec	**10,174**	15,735

Term to maturity

		2023	2022
	Footnote	$m	$m
Less than 1 year	1	**1,256**	7,502
1-5 years	1	**8,888**	8,162
5-10 years		**30**	71
At 31 Dec		**10,174**	15,735

1. *Includes covered bonds.*

The Canadian registered covered bonds, which are debt securities in issue, are secured by a segregated pool of uninsured residential mortgages on properties in Canada that is held by a separate guarantor entity, HSBC Canadian Covered Bond (Legislative) Guarantor Limited Partnership, established by the bank exclusively for the Covered Bond Program (the 'Program'). Under the terms of the Program, the bank issued covered bonds that are direct, unsecured and unconditional obligations of the bank. The covered bonds are treated equivalent to deposits that are ranked *pari passu* with all customer accounts of the bank without any preference among themselves and at least *pari passu* with all other unsubordinated and unsecured obligations of the bank, present and future.

The legal title on the residential mortgages that is secured by a segregated pool is held by the Guarantor LP.

At 31 December 2023, the total amount of the mortgages transferred and outstanding was $8,058m (2022: $7,652m) and $4,010m of covered bonds were recorded as debt securities in issue on our consolidated balance sheet (2022: $3,887m).

21 Other liabilities

	2023	2022
	$m	$m
Mortgages sold with recourse	**1,931**	1,930
Lease liabilities	**270**	264
Accounts payable	**580**	792
Settlement accounts	**423**	272
Cash collateral	**360**	280
Other	**52**	39
At 31 Dec	**3,616**	3,577

22 Subordinated liabilities

Subordinated debt and debentures, which are unsecured and subordinated in right of payment to the claims of depositors and certain other creditors, comprise:

		Year of Maturity	Carrying amount	
			2023	**2022**
	Footnote		**$m**	**$m**
Interest rate (%)				
Issued to HSBC Group				
– 3 month Canadian Dollar Offered Rate plus 1.92%	1	2028	**1,000**	1,000
Issued to third parties				
– 30 day bankers' acceptance rate plus 0.50%		2083	**11**	11
Debt and debentures at amortized cost			**1,011**	1,011

1. *The subordinated debt issued to HSBC Group includes non-viability contingency capital ('NVCC') provisions, necessary for the instrument to qualify as Tier 2 regulatory capital under Basel III. In the event that OSFI determines that a regulatory defined non-viability trigger event has occurred, NVCC provisions require the full and permanent write-off of the subordinated debt.*

23 Fair values of financial instruments

Control framework

Fair values are subject to a control framework designed to ensure that they are either determined, or validated, by a function independent of the risk-taker. To this end, ultimate responsibility for the determination of fair values lies with the bank's finance department ('Finance'). Finance establishes the accounting policies and procedures governing valuation, and is responsible for ensuring that they comply with all relevant accounting standards.

Where fair values are determined by reference to externally quoted prices or observable pricing inputs to models, independent price determination or validation is used. For inactive markets, the bank sources alternative market information, with greater weight given to information that is considered to be more relevant and reliable. Examples of the factors considered are price observability, instrument comparability, consistency of data sources, underlying data accuracy and timing of prices.

For fair values determined using valuation models, the control framework includes development or validation by independent support functions of the model logic, inputs, model outputs and adjustments. Valuation models are subject to a process of due diligence before becoming operational and are calibrated against external market data on an ongoing basis.

Changes in fair value are generally subject to a profit and loss analysis process and are disaggregated into high-level categories including portfolio changes, market movements and other fair value adjustments.

Fair value hierarchy

Fair values of financial assets and liabilities are determined according to the following hierarchy:

- Level 1 – valuation technique using quoted market price: financial instruments with quoted prices for identical instruments in active markets that the bank can access at the measurement date.
- Level 2 – valuation technique using observable inputs: financial instruments with quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in inactive markets and financial instruments valued using models where all significant inputs are observable.
- Level 3 – valuation technique with significant unobservable inputs: financial instruments valued using valuation techniques where one or more significant inputs are unobservable.

The best evidence of fair value is a quoted price in an actively traded market. In the event that the market for a financial instrument is not active, a valuation technique is used. The judgment as to whether a market is active may include, but is not restricted to, the consideration of factors such as the magnitude and frequency of trading activity, the availability of prices and the size of bid/offer spreads. In inactive markets, obtaining assurance that the transaction price provides evidence of fair value or determining the adjustments to transaction prices that are necessary to measure the fair value of the instrument requires additional work during the valuation process.

Valuation techniques incorporate assumptions about factors that other market participants would use in their valuations. A range of valuation techniques is employed, dependent upon the instrument type and available market data. Most valuation techniques are based upon discounted cash flow analysis, in which expected future cash flows are calculated and discounted to present value using a discounting curve. Prior to consideration of credit risk, the expected future cash flows may be known, as would be the case for the fixed leg of an interest rate swap, or may be uncertain and require projection, as would be the case for the floating leg of an interest rate swap. The valuation techniques the bank applies utilize market forward curves, if available. In option models, the probability of different potential future outcomes must be considered. In addition, the value of some products are dependent upon more than one market factor, and in these cases it will typically be necessary to consider how movements in one market factor may impact the other market factors. The model inputs necessary to perform such calculations include interest rate yield curves, exchange rates, volatilities, correlations, prepayment and default rates.

The majority of valuation techniques employ only observable market data and so the reliability of the fair value measurement is high. However, certain financial instruments are valued on the basis of valuation techniques that feature one or more significant market inputs that are unobservable, and for them, the derivation of fair value is more judgmental. An instrument in its entirety is classified as valued using significant unobservable inputs if, in the opinion of management, a significant proportion of the instrument's carrying amount and/or inception profit ('day 1 gain and loss') is driven by unobservable inputs. 'Unobservable' in this context means that there is little or no current market data available from which to determine the level at which an arm's length transaction would be likely to occur. It generally does not mean that there is no market data available at all upon which to base a determination of fair value (consensus pricing data may, for example, be used). Furthermore, in some cases the majority of the fair value derived from a valuation technique with significant unobservable inputs may be attributable to the observable inputs. Consequently, the effect of uncertainty in the determining unobservable inputs will generally be restricted to uncertainty about the overall fair value of the financial instrument being measured.

In certain circumstances, primarily where debt is hedged with interest rate derivatives, the bank uses fair value to measure the carrying value of its own debt in issue. The bank records its own debt in issue at fair value, based on quoted prices in an active market for the specific instrument concerned, if available. When quoted market prices are unavailable, the own debt in issue is valued using valuation techniques, the inputs for which are either based upon quoted prices in an inactive market for the instrument, or are estimated by comparison with quoted prices in an active market for similar instruments. In both cases, the fair value includes the effect of applying the credit spread which is appropriate to the bank's liabilities. For all issued debt securities, discounted cash flow modeling is used to separate the change in fair value that may be attributed to the bank's credit spread movements from movements in other market factors such as benchmark interest rates or foreign exchange rates. Specifically, the change in fair value of issued debt securities attributable to the bank's own credit spread is computed as follows: for each security at each reporting date, an externally verifiable price is obtained or a price is derived using credit spreads for similar securities for the same issuer. Then, using discounted cash flow, each security is valued using a risk-free discount curve. The difference in the valuations is attributable to the bank's own credit spread. This methodology is applied consistently across all securities.

Gains and losses arising from changes in the credit spread of liabilities issued by the bank reverse over the contractual life of the debt, provided that the debt is not repaid early. All positions in non-derivative financial instruments, and all derivative portfolios, are valued at bid or offer prices as appropriate. Long positions are marked at bid prices; short positions are marked at offer prices.

The fair value of a portfolio of financial instruments quoted in an active market is calculated as the product of the number of units and its quoted price and no block discounts are made.

Transaction costs are not included in the fair value calculation, nor are the future costs of administering the over the counter derivative portfolio. These, along with trade origination costs such as brokerage fees and post-trade costs, are included either in 'Fee expense' or in 'Total operating expenses'.

A detailed description of the valuation techniques applied to instruments of particular interest follows:

Debt securities, treasury and other eligible bills, and equities

The fair value of these instruments is based on quoted market prices from an exchange, dealer, broker, industry group or pricing service, when available. When unavailable, the fair value is determined by reference to quoted market prices for similar instruments, adjusted as appropriate for the specific circumstances of the instruments.

In the absence of quoted market prices, fair value is determined using valuation techniques based on the calculation of the present value of expected future cash flows of the assets. The inputs to these valuation techniques are derived from observable market data and, where relevant, assumptions in respect of unobservable inputs.

Derivatives

Over-the-counter (i.e. non-exchange traded) derivatives are valued using valuation models. Valuation models calculate the present value of expected future cash flows, based upon 'no-arbitrage' principles. For many vanilla derivative products, such as interest rate swaps and European options, the modeling approaches used are standard across the industry. For more complex derivative products, there may be some differences in market practice. Inputs to valuation models are determined from observable market data wherever possible, including prices available from exchanges, dealers, brokers or providers of consensus pricing. Certain inputs may not be observable in the market directly, but can be determined from observable prices via model calibration procedures. Finally, some inputs are not observable, but can generally be estimated from historical data or other sources. Examples of inputs that are generally observable include foreign exchange spot and forward rates, benchmark interest rate curves and volatility surfaces for commonly traded option products. Examples of inputs that may be unobservable include volatility spreads, in whole or in part, for less commonly traded option products, and correlations between market factors such as foreign exchange rates, interest rates and equity prices.

HSBC views the Overnight Indexed Swap ('OIS') curve or the Risk Free Rate ('RFR') curve where available as the base discounting curve for all derivatives, both collateralized and uncollateralized, and utilizes a 'funding fair value adjustment' to reflect the funding of uncollateralized derivative exposure at rates other than OIS or RFR.

Derivative products valued using valuation techniques with significant unobservable inputs comprise certain long-dated foreign exchange options.

Bases of valuing financial assets and liabilities measured at fair value

The table below provides an analysis of the various bases described above which have been deployed for valuing financial assets and financial liabilities measured at fair value in the consolidated financial statements.

	Valuation techniques			
	Level 1 quoted market price	Level 2 using observable inputs	Level 3 with significant unobservable inputs	Total
	$m	$m	$m	$m
At 31 Dec 2023				
Assets				
Trading assets	**3,172**	**81**	**—**	**3,253**
Other financial assets mandatorily measured at fair value through profit or loss	**—**	**20**	**—**	**20**
Derivatives	**—**	**3,964**	**—**	**3,964**
Financial investments	**12,352**	**10**	**—**	**12,362**
Liabilities				
Trading liabilities	**1,785**	**85**	**—**	**1,870**
Derivatives	**—**	**4,095**	**—**	**4,095**
At 31 Dec 2022				
Assets				
Trading assets	3,966	330	—	4,296
Other financial assets mandatorily measured at fair value through profit or loss	—	18	—	18
Derivatives	—	6,220	—	6,220
Financial investments	15,024	15	—	15,039
Liabilities				
Trading liabilities	3,486	246	—	3,732
Derivatives	—	6,575	—	6,575

Transfers between levels of the fair value hierarchy are deemed to occur at the end of each reporting period. Transfers into and out of levels of the fair value hierarchy are primarily attributable to changes in observability of valuation inputs and price transparency. At 31 December 2023, there were no transfers from Level 1 to Level 2 (31 December 2022: nil), nor from Level 2 to Level 1 (31 December 2022: trading liabilities, $1m).

Fair values of financial instruments not carried at fair value

Fair values at the balance sheet date of the assets and liabilities set out below are estimated for the purpose of disclosure as follows:

(a) Loans and advances to banks and customers

The fair value of loans and advances is based on observable market transactions, where available. In the absence of observable market transactions, fair value is estimated using discounted cash flow models. Performing loans are grouped, as far as possible, into homogeneous pools segregated by maturity and coupon rates. In general, contractual cash flows are discounted using the bank's estimate of the discount rate that a market participant would use in valuing instruments with similar maturity, repricing and credit risk characteristics.

The fair value of a loan portfolio reflects both loan impairments at the reporting date and estimates of market participants' expectations of credit losses over the life of the loans. For impaired loans, fair value is estimated by discounting the future cash flows over the time period in which they are expected to be recovered.

(b) Deposits by banks and customer accounts

For the purposes of estimating fair value, deposits by banks and customer accounts are grouped by residual maturity. Fair values are estimated using discounted cash flows, applying current rates offered for deposits of similar remaining maturities. The fair value of a deposit repayable on demand approximates its book value.

(c) Debt securities in issue and subordinated liabilities

Fair values are determined using quoted market prices at the reporting date where available, or by reference to quoted market prices for similar instruments.

The fair values in this note are stated at a specific date and may be significantly different from the amounts which will actually be paid on the maturity or settlement dates of the instruments. In many cases, it would not be possible to realize immediately the estimated fair values given the size of the portfolios measured. Accordingly, these fair values do not represent the value of these financial instruments to the bank as a going concern.

For all classes of financial instruments, fair value represents the product of the value of a single instrument, multiplied by the number of instruments held.

The following table lists financial instruments whose carrying amount is a reasonable approximation of fair value because, for example, they are short-term in nature or reprice to current market rates frequently:

Assets	Liabilities
Cash and balances at central bank	Items in the course of transmission to other banks
Items in the course of collection from other banks	Deposits by banks
Loans and advances to banks	Acceptances
Customers' liability under acceptances	Short-term payables within 'Other liabilities'
Short-term receivables within 'Other assets'	Accruals
Reverse repurchase agreements – non-trading	Repurchase agreements – non-trading
Accrued income	

Fair values of financial instruments not carried at fair value

	Footnote	Carrying amount[1]	Fair value			
			Level 1 quoted market price	Level 2 using observable inputs	Level 3 with significant unobservable inputs	Total
		$m	$m	$m	$m	$m
At 31 Dec 2023						
Assets						
Loans and advances to customers	2	**74,093**	**—**	**—**	**73,407**	**73,407**
Financial investments – at amortized cost		**10,058**	**9,939**	**—**	**—**	**9,939**
Liabilities						
Customer accounts		**83,236**	**—**	**83,929**	**—**	**83,929**
Debt securities in issue		**10,174**	**—**	**9,988**	**—**	**9,988**
Subordinated liabilities		**1,011**	**—**	**1,095**	**—**	**1,095**
At 31 Dec 2022						
Assets						
Loans and advances to customers	2	74,862	—	—	74,025	74,025
Financial investments – at amortized cost		8,361	8,194	—	—	8,194
Liabilities						
Customer accounts		82,253	—	82,430	—	82,430
Debt securities in issue		15,735	—	15,258	—	15,258
Subordinated liabilities		1,011	—	1,110	—	1,110

1. *Accrued interest is separately presented on the balance sheet and accordingly is not included in the carrying amount of the financial instruments above.*
2. *Loans and advances to customers specifically relating to Canada: carrying amount $69,186m (2022: $70,168m) and fair value $68,545m (2022: $69,383m).*

24 Assets pledged, collateral received and assets transferred

Assets charged as security for liabilities and contingent obligations

In the ordinary course of business, we pledge assets recorded on our consolidated balance sheet in relation to securitization activity, covered bonds, mortgages sold with recourse, securities lending and securities sold under repurchase agreements. These transactions are conducted under terms that are usual and customary to standard securitization, covered bonds, mortgages sold with recourse, securities lending and repurchase agreements. In addition, we also pledge assets to secure our obligations within payment and depository clearing systems.

	Footnotes	2023	2022
		$m	$m
Cash		**391**	997
Residential mortgages	1	**8,579**	9,118
Debt securities		**2,685**	3,336
At 31 Dec		**11,655**	13,451

1. *Includes the mortgages pledged for the covered bond program.*

The bank is required to pledge assets to secure its obligations in the Large Value Transfer System ('LVTS'), which processes electronically in real-time large value and time-critical payments in Canada. In the normal course of business, pledged assets are released upon settlement of the bank's obligations at the end of each business day. Only in rare circumstances are we required to borrow from the Bank of Canada to cover any settlement obligations. Under those circumstances, the pledged assets would be used to secure the borrowing. No amounts were outstanding under this arrangement at 31 December 2023 or 2022. Consequently, the assets pledged with respect to the bank's LVTS obligations have not been included in the table above.

Collateral accepted as security for assets

The fair value of financial assets accepted as collateral that the bank is permitted to sell or repledge in the absence of default is $4,775m (2022: $7,864m). The fair value of financial assets accepted as collateral that have been sold or repledged is $3,803m (2022: $6,688m). The bank is obliged to return equivalent assets.

These transactions are conducted under terms that are usual and customary to standard securities borrowing and reverse repurchase agreements.

Assets transferred

The following table analyzes the carrying amount of financial assets at 31 December that did not qualify for derecognition during the year as the bank did not transfer substantially all of the variability of the risks and rewards of ownership and their associated financial liabilities recognized for the proceeds received. The assets pledged, as disclosed in the previous section, include transfers to third parties that do not qualify for derecognition.

Transferred financial assets not qualifying for full derecognition and associated financial liabilities

	Footnotes	Carrying amount of:		Fair value of:		
		Transferred assets	Associated liabilities	Transferred assets	Associated liabilities	Net position
		$m	$m	$m	$m	$m
At 31 Dec 2023						
– assets securitized		**2,313**	**2,273**	**2,268**	**2,262**	**6**
– mortgages sold with recourse		**1,931**	**1,931**	**1,852**	**1,852**	**—**
– repurchase agreements	1	**2,342**	**2,342**	**2,342**	**2,342**	**—**
At 31 Dec 2022						
– assets securitized		2,908	2,870	2,847	2,813	34
– mortgages sold with recourse		1,930	1,930	1,843	1,843	—
– repurchase agreements	1	3,095	3,095	3,095	3,095	—

1. *Transfers of financial assets subject to repurchase agreements are presented prior to any offsetting adjustments.*

In addition to assets securitized as noted above which did not result in derecognition of the transferred financial instruments, the bank has also created $942m (2022: $697m) of securitized assets which are collateralized by certain of the bank's mortgage receivables which remain on the bank's balance sheet and are presented within loans and advances to customers. A liability has not been recognized as the securitized assets have not been transferred to third parties. The retained mortgage-backed securities are available as collateral for secured funding liabilities.

25 Share capital

Authorized

Preferred – Unlimited number of Class 1 preferred shares in one or more series and unlimited number of Class 2 preferred shares in one or more series. We may, from time to time, divide any unissued Class 1 preferred shares into separate series and fix the number of shares in each series along with the associated rights, privileges, restrictions and conditions.

Common – Unlimited number of common shares.

Issued and fully paid

	Footnotes	2023		2022	
		Number of shares	Share capital $m	Number of shares	Share capital $m
Preferred shares Class 1	1	**44,000,000**	**1,100**	44,000,000	1,100
– Series H	2	**20,000,000**	**500**	20,000,000	500
– Series J	3	**14,000,000**	**350**	14,000,000	350
– Series K	4	**10,000,000**	**250**	10,000,000	250
Common shares	5	**548,668,000**	**1,125**	548,668,000	1,125

1. *The Class 1 preferred shares include non-viability contingency capital ('NVCC') provisions, necessary for the preferred shares to qualify as Tier 1 regulatory capital under Basel III. In the event that OSFI determines that a regulatory defined non-viability trigger event has occurred, NVCC provisions require the write-off and cancellation of the preferred shares against equity.*
2. *The Series H shares are non-voting, non-cumulative and redeemable. Dividends are based on the three-month Government of Canada Treasury Bill yield plus 2.94%, payable quarterly, as and when declared. Subject to regulatory approval, the bank may (i) on 30 June 2025 and every 5 years thereafter, redeem a portion or all of the Series H shares at a cash redemption price of $25 per share or (ii) on any other date on or after 30 June 2020 redeem a portion or all of the Series H shares at a cash redemption price of $25.50. The holder of the Series H shares may on 30 June 2025 and every 5 years thereafter, convert a portion or all of the Series H shares into Series G shares. The Series G shares are non-voting, non-cumulative and redeemable. Dividends are based on the 5-year Government of Canada bond yield plus 2.94%, payable quarterly, as and when declared. If outstanding, subject to regulatory approval, the bank may on 30 June 2030 and every 5 years thereafter, redeem a portion or all of the Series G shares at a cash redemption price of $25 per share. If outstanding, the holder of the Series G shares may, subject to certain conditions, on 30 June 2030 and every 5 years thereafter, convert a portion or all of the Series G shares into non-cumulative floating rate Series H preferred shares.*
3. *The Series J shares are non-voting, non-cumulative and redeemable. Dividends are based on the three-month Government of Canada Treasury Bill yield plus 2.95%, payable quarterly, as and when declared. Subject to regulatory approval, the bank may (i) on 31 December 2027 and every 5 years thereafter, redeem a portion or all of the Series J shares at a cash redemption price of $25 per share or (ii) on any other date on or after 31 December 2022 redeem a portion or all of the Series J shares at a cash redemption price of $25.50. The holder of the Series J shares may on 31 December 2027 and every 5 years thereafter, convert a portion or all of the Series J shares into Series I shares. The Series I shares are non-voting, non-cumulative and redeemable. Dividends are based on the 5-year Government of Canada bond yield plus 2.95%, payable quarterly, as and when declared. If outstanding, subject to regulatory approval, the bank may on 31 December 2022 and every 5 years thereafter, redeem a portion or all of the Series I shares at a cash redemption price of $25 per share. If outstanding, the holder of the Series I shares may, subject to certain conditions, on 31 December 2022 and every 5 years thereafter, convert a portion or all of the Series I shares into non-cumulative floating rate Series J preferred shares.*
4. *The Series K shares are non-voting, non-cumulative and redeemable. The initial dividend was fixed at $0.35560 per share and was paid on 31 December 2019. Thereafter, each share yields 5.45%, payable quarterly, as and when declared. On 30 September 2024 and every 5 years thereafter, the dividend rate will reset to be equal to the then current 5-year Government of Canada bond yield plus 4.011%. Subject to regulatory approval, the bank may on 30 September 2024 and every 5 years thereafter, redeem a portion or all of the Series K shares at a cash redemption price of $25 per share. The holder of the Series K shares may, subject to certain conditions, on 30 September 2024 and every 5 years thereafter, convert a portion or all of the Series K shares into non-cumulative floating rate Series L preferred shares. The Series L shares are non-voting, non-cumulative and redeemable. Dividends are based on the three-month Government of Canada Treasury Bill yield plus 4.011%, payable quarterly, as and when declared. Subject to regulatory approval, the bank may (i) on 30 September 2029 and every 5 years thereafter, redeem a portion or all of the Series L shares at a cash redemption price of $25 per share or (ii) on any other date on or after 30 September 2024 redeem a portion or all of the Series L shares at a cash redemption price of $25.50. The holder of the Series L shares may on 30 September 2029 and every 5 years thereafter, convert a portion or all of the Series L shares into Series K shares.*
5. *On 15 March 2022, the bank returned $600m of common share capital to HSBC Overseas Holdings (UK) Limited.*

26 Contingent liabilities, contractual commitments and guarantees

	Footnote	2023 $m	2022 $m
Guarantees:			
– financial guarantees	1	**1,689**	1,725
– performance guarantees	2	**4,406**	4,174
At 31 Dec		**6,095**	5,899
Commitments:			
– standby facilities, credit lines and other commitments to lend		**47,530**	46,337
– documentary credits and short-term trade-related transactions		**529**	641
At 31 Dec		**48,059**	46,978

1. *Financial guarantees require the issuer to make specified payments to reimburse the holder for a loss incurred because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument. The amounts in the above table are nominal principal amounts.*
2. *Performance bonds, bid bonds, standby letters of credit and other transaction-related guarantees are undertakings by which the obligation on the bank and/or the bank to make payment depends on the outcome of a future event.*

The preceding table discloses the nominal principal amounts of off-balance sheet liabilities and commitments for the bank, which represent the maximum amounts at risk should the contracts be fully drawn upon and the clients default. As a significant portion of guarantees and commitments are expected to expire without being drawn upon, the total of the nominal principal amounts is not indicative of future liquidity requirements.

The bank provides guarantees and similar undertakings on behalf of both third party customers and other entities within the bank. These guarantees are generally provided in the normal course of the bank's banking business. The risks and exposures arising from guarantees are captured and managed in accordance with the bank's overall credit risk management policies and procedures. Guarantees with terms of more than one year are subject to the bank's annual credit review process.

27 Finance lease receivables and lease commitments

Finance lease receivables

The bank leases a variety of assets to third parties under finance leases, including transport assets, property and general plant and machinery. At the end of the lease terms, assets may be sold to third parties or leased for further terms. This includes sale and lease-back arrangements. Rentals are calculated to recover the cost of assets less their residual value, and earn finance income.

	2023			2022		
	Total future minimum payments $m	Unearned finance income $m	Present value $m	Total future minimum payments $m	Unearned finance income $m	Present value $m
Lease receivables:						
No later than one year	**641**	**(72)**	**569**	577	(60)	517
One to two years	**512**	**(50)**	**462**	476	(43)	433
Two to three years	**407**	**(32)**	**375**	342	(28)	314
Three to four years	**267**	**(17)**	**250**	276	(17)	259
Four to five years	**122**	**(7)**	**115**	164	(8)	156
Later than five years	**96**	**(3)**	**93**	105	(5)	100
At 31 Dec	**2,045**	**(181)**	**1,864**	1,940	(161)	1,779

Lease commitments

The amount of lease agreements with a commencement date after 31 December 2023 is nil (2022: $3m).

28 Related party transactions

The immediate parent company of the bank is HSBC Overseas Holdings (UK) Limited and the ultimate parent company is HSBC Holdings. Both are incorporated in England. The bank's related parties include the immediate parent, ultimate parent, fellow subsidiaries and Key Management Personnel.

(a) Transactions with Key Management Personnel

Key Management Personnel are defined as those persons having authority and responsibility for planning, directing and controlling the activities of the bank and includes members of the Board of HSBC Bank Canada.

Compensation of Key Management Personnel

The following represents the compensation paid to the Key Management Personnel of the bank in exchange for services rendered to the bank.

Compensation of Key Management Personnel

	Footnote	2023 $m	2022 $m
Short-term employee benefits	1	**17**	22
Post-employment benefits		**1**	1
Share-based payments		**3**	2
Year ended 31 Dec		**21**	25

1. *Directors receive fees but do not receive salaries and other short-term employee benefits.*

Other transactions, arrangements and agreements involving Key Management Personnel

The disclosure of the year-end balance and the highest balance during the year is considered the most meaningful information to represent transactions during the year. The transactions below were made in the ordinary course of business and on substantially the same terms, including interest rates and security, as for comparable transactions with persons of a similar standing or, where applicable, with other employees. The transactions did not involve more than the normal risk of repayment or present other unfavourable features.

		2023		2022	
	Footnote	Highest balance during the year $m	Balance at 31 December $m	Highest balance during the year $m	Balance at 31 December $m
Key Management Personnel	1				
– loans		**6.2**	**5.4**	7.2	6.8
– credit cards		**0.4**	**0.1**	0.6	0.2

1. *Includes Key Management Personnel, close family members of Key Management Personnel and entities which are controlled, jointly controlled or significantly influenced, or for which significant voting power is held, by Key Management Personnel or their close family member.*

(b) Transactions between the bank and HSBC Group

Transactions detailed below include amounts due to/from the bank and HSBC Group. The disclosure of the year-end balance and the highest balance during the year is considered the most meaningful information to represent transactions during the year. The transactions below were made in the ordinary course of business and on substantially the same terms, including interest rates and security, as for comparable transactions with third party counterparties. Certain collateral for derivatives are handled by other HSBC Group affiliates who have agreements with selected clearing houses and exchanges.

	2023		2022	
	Highest balance during the year $m	Balance at 31 December $m	Highest balance during the year $m	Balance at 31 December $m
Assets				
Derivatives	**5,430**	**3,267**	5,368	5,046
Loans and advances to banks	**276**	**190**	1,218	210
Reverse repurchase agreements – non-trading	**208**	**–**	446	41
Other assets	**2,270**	**540**	1,566	1,044
Liabilities				
Deposits by banks	**621**	**257**	1,210	628
Customer accounts	**73**	**71**	59	56
Repurchase agreements – non-trading	**1,532**	**–**	339	6
Derivatives	**5,596**	**3,291**	5,570	5,481
Other liabilities	**810**	**453**	1,798	150
Subordinated liabilities	**1,000**	**1,000**	1,000	1,000

On 15 March 2022, the bank returned $600m of common share capital to HSBC Overseas Holdings (UK) Limited; no changes occurred in the number of issued shares.

On 31 December 2022, HSBC Overseas Holdings (UK) Limited, holder of the preferred shares Series I, exercised their option to convert the preferred shares Series I into preferred shares Series J in accordance with their terms.

Under a contract in place since the creation of HSBC Global Services (Canada) Limited ('ServCo') on 1 January 2019, which is an indirect wholly-owned subsidiary of HSBC Holdings, the bank is responsible for a portion of any severance paid by ServCo to employees that are former bank employees in the event of termination of employment.

During 2023, a short-term loan facility from HSBC Hong Kong matured and was repaid.

On 18 September 2023, ServCo transferred certain shared services to the bank. The transfer was not designed to deliver economic benefits from changes in business activities, but represents a rearrangement of the organization of business activities across legal entities under the

common control of HSBC Holdings in its capacity as the ultimate shareholder. The transfer of people and other supporting assets has no significant impact on the overall financial results, position or operations of the bank.

The consideration paid to ServCo as part of the transaction was $2m. The combination of the net liabilities assumed and the consideration paid is recognized in equity as a deemed dividend of $4m to the ultimate shareholder.

	2023	2022
	$m	$m
Income statement		
Interest income	**(172)**	4
Interest expense	**(137)**	(60)
Fee income	**18**	23
Fee expense	**(17)**	(15)
Other operating income	**20**	20
General and administrative expenses	**(310)**	(396)

29 Offsetting of financial assets and financial liabilities

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements

		Amounts subject to enforceable netting arrangements					
					Amounts not set off in the balance sheet		
		Gross amounts	**Amounts offset**	**Net amounts in the balance sheet**	**Financial instruments, including non-cash collateral**[1]	**Cash collateral**	**Net amount**
	Footnote	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
Financial assets							
Derivatives (note 12)	2	**3,964**	**—**	**3,964**	**(3,464)**	**(614)**	**(114)**
Reverse repurchase agreements:		**4,752**	**(1,157)**	**3,595**	**(3,595)**	**—**	**—**
– loan and advances to banks at amortized cost		**292**	**—**	**292**	**(292)**	**—**	**—**
– loan and advances to customers at amortized cost		**4,460**	**(1,157)**	**3,303**	**(3,303)**	**—**	**—**
Loans and advances to customers		**579**	**—**	**579**	**(392)**	**—**	**187**
At 31 Dec 2023		**9,295**	**(1,157)**	**8,138**	**(7,451)**	**(614)**	**73**
Derivatives (note 12)	2	6,220	—	6,220	(5,693)	(483)	44
Reverse repurchase agreements:		7,935	(1,932)	6,003	(6,003)	—	—
– loan and advances to banks at amortized cost		1,521	(66)	1,455	(1,455)	—	—
– loan and advances to customers at amortized cost		6,414	(1,866)	4,548	(4,548)	—	—
Loans and advances to customers		442	—	442	(258)	—	184
At 31 Dec 2022		14,597	(1,932)	12,665	(11,954)	(483)	228
Financial liabilities							
Derivatives (note 12)	2	**4,095**	**—**	**4,095**	**(3,506)**	**(637)**	**(48)**
Repurchase agreements		**4,811**	**(1,157)**	**3,654**	**(3,654)**	**—**	**—**
– deposits by banks at amortized cost		**690**	**—**	**690**	**(690)**	**—**	**—**
– customer accounts at amortized cost		**4,121**	**(1,157)**	**2,964**	**(2,964)**	**—**	**—**
Customer accounts excluding repos at amortized cost		**1,006**	**—**	**1,006**	**(392)**	**—**	**614**
At 31 Dec 2023		**9,912**	**(1,157)**	**8,755**	**(7,552)**	**(637)**	**566**
Derivatives (note 12)	2	6,575	—	6,575	(5,311)	(1,192)	72
Repurchase agreements		6,367	(1,932)	4,435	(4,435)	—	—
– deposits by banks at amortized cost		1,092	(66)	1,026	(1,026)	—	—
– customer accounts at amortized cost		5,275	(1,866)	3,409	(3,409)	—	—
Customer accounts excluding repos at amortized cost		1,110	—	1,110	(258)	—	852
At 31 Dec 2022		14,052	(1,932)	12,120	(10,004)	(1,192)	924

1. *The disclosure was enhanced in 2022 to present all financial instruments (whether recognised on our balance sheet or as non-cash collateral received or pledged) within "financial instruments, including non-cash collateral" as balance sheet classification has no effect on the rights of set-off associated with financial instruments.*
2. *Includes derivative amounts that are both subject to and not subject to enforceable master netting agreements and similar agreements.*

30 Legal proceedings and regulatory matters

The bank is subject to a number of legal proceedings and regulatory matters arising in the normal course of our business. The bank does not expect the outcome of any of these proceedings, in aggregate, to have a material effect on its consolidated balance sheet or its consolidated income statement. This is, however, an area of significant judgment and the potential liability resulting from these matters could in aggregate be material to the bank's consolidated balance sheet or consolidated income statement.

31 Events after the reporting period

Dividends

At this time, no dividends have been declared on HSBC Bank Canada shares during the first quarter of 2024.

There have been no other material events after the reporting period which would require disclosure or adjustment to the 31 December 2023 consolidated financial statements.

These accounts were approved by the Board of Directors on 9 February 2024 and authorized for issue.

HSBC Group international network[1]

Services are provided in 62 countries and territories

Europe	Asia-Pacific	Americas	Middle East and Africa
Armenia	Australia	Argentina	Algeria
Belgium	Bangladesh	Bermuda	Bahrain
Channel Islands	China	Brazil	Egypt
Czech Republic	Hong Kong Special Administrative Region	British Virgin Islands	Israel
Denmark	India	Canada	Kuwait
France	Indonesia	Cayman Islands	Lebanon
Germany	Japan	Chile	Oman
Ireland	Korea, Republic of	Colombia	Qatar
Isle of Man	Macau Special Administrative Region	Mexico	Saudi Arabia
Italy	Malaysia	Peru	South Africa
Luxembourg	Maldives	United States of America	Turkey
Malta	Mauritius	Uruguay	United Arab Emirates
Netherlands	New Zealand		
Poland	Philippines		
Russia	Singapore		
Spain	Sri Lanka		
Sweden	Taiwan		
Switzerland	Thailand		
United Kingdom	Vietnam		

[1]As of February 2024

Executive Committee[1]

Linda Seymour
General Manager,
President and Chief
Executive Officer
Toronto

Kimberly Flood
Senior Vice President and
Head of Communications
Toronto

Georgia Stavridis
Executive Vice President and
Chief Compliance Officer
Vancouver

Larry Tomei
Executive Vice President
and Head of Wealth and
Personal Banking
Toronto

Lilac Bosma
General Counsel
Vancouver

Kim Hallwood
Head of Corporate
Sustainability
Vancouver

Daniel Hankinson
Chief Financial Officer
Toronto

Sophia Tsui
Chief Risk Officer
Vancouver

Marty Halpin
Head of Markets and
Securities Services
Toronto

Scott Lampard
Executive Vice President
and Managing Director,
Head of Global Banking
Toronto

Kim Toews
Executive Vice President and
Head of Human Resources
Vancouver

Alan Turner
Executive Vice President
and Head of Commercial
Banking
Toronto

Lisa Dalton
Chief of Staff, Office of the
CEO
Vancouver

Anna Camilleri
Senior Vice President
and Chief Auditor
Vancouver

Caroline Tose
Chief Operating Officer
Vancouver

Alicia Evers
Corporate Secretary and
Head of Governance
Toronto

Board of Directors[1]

Samuel Minzberg
Chair of the Board,
HSBC Bank Canada and
Of Counsel, Davies Ward
Phillips & Vineberg LLP

Linda Seymour
General Manager,
President and Chief
Executive Officer,
HSBC Bank Canada

Larry Tomei
Executive Vice President
and Head of Wealth and
Personal Banking, HSBC
Bank Canada

Andrea Nicholls
Chief Financial Officer,
Dentons Canada LLP

Karen Gavan
Corporate Director

Robert McFarlane
Chair of the Audit, Risk and
Conduct Review Committee,
HSBC Bank Canada and
Corporate Director

Mark Saunders
Corporate Director

Fiona Macfarlane
Corporate Director

Michael Roberts
Group Managing Director
and Chief Executive Officer,
HSBC US and Americas,
HSBC Holdings plc
President and Chief Executive
Officer, HSBC North America
Holdings Inc.

[1]As of February 2024

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