

**FINANCIAL REPORT FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2023**

**THE BANK OF N.T. BUTTERFIELD & SON LIMITED**



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**The Bank of N.T. Butterfield & Son Limited**  
**Consolidated Balance Sheets (unaudited)**  
*(In thousands of US dollars, except share and per share data)*

	As at	
	September 30, 2023	December 31, 2022
<b>Assets</b>		
Cash and demand deposits with banks - Non-interest bearing	96,703	93,032
Demand deposits with banks - Interest bearing	167,775	258,239
Cash equivalents - Interest bearing	1,485,300	1,749,516
Cash and cash equivalents	1,749,778	2,100,787
Securities purchased under agreements to resell	154,113	59,871
Short-term investments	738,810	884,478
Investment in securities		
Equity securities at fair value	—	236
Available-for-sale at fair value (amortized cost: \$2,035,947 (2022: \$2,209,078))	1,797,940	1,988,865
Held-to-maturity (fair value: \$2,829,583 (2022: \$3,197,508))	3,520,650	3,738,080
Total investment in securities	5,318,590	5,727,181
Loans		
Loans	4,775,786	5,121,391
Allowance for credit losses	(26,017)	(24,961)
Loans, net of allowance for credit losses	4,749,769	5,096,430
Premises, equipment and computer software, net	153,949	146,141
Goodwill	23,100	22,892
Other intangible assets, net	47,533	51,478
Equity method investments	7,059	12,484
Other real estate owned, net	815	800
Accrued interest and other assets	236,010	203,520
<b>Total assets</b>	<b>13,179,526</b>	<b>14,306,062</b>
<b>Liabilities</b>		
Deposits		
Non-interest bearing	2,568,879	3,039,701
Interest bearing	9,292,147	9,951,375
Total deposits	11,861,026	12,991,076
Employee benefit plans	93,127	92,018
Accrued interest and other liabilities	204,003	185,864
Total other liabilities	297,130	277,882
Long-term debt	98,431	172,289
<b>Total liabilities</b>	<b>12,256,587</b>	<b>13,441,247</b>
<b>Commitments, contingencies and guarantees (Note 10)</b>		
<b>Shareholders' equity</b>		
Common share capital (BMD 0.01 par; authorized voting ordinary shares 2,000,000,000 and non-voting ordinary shares 6,000,000,000) issued and outstanding: 48,689,935 (2022: 50,277,466)	488	503
Additional paid-in capital	1,005,558	1,032,632
Retained earnings (Accumulated deficit)	320,825	229,732
Less: treasury common shares, at cost: 619,212 (2022: 619,212)	(17,845)	(20,600)
Accumulated other comprehensive income (loss)	(386,087)	(377,452)
<b>Total shareholders' equity</b>	<b>922,939</b>	<b>864,815</b>
<b>Total liabilities and shareholders' equity</b>	<b>13,179,526</b>	<b>14,306,062</b>

The accompanying notes are an integral part of these consolidated financial statements.

**The Bank of N.T. Butterfield & Son Limited**  
**Consolidated Statements of Operations (unaudited)**  
*(In thousands of US dollars, except per share data)*

	Three months ended		Nine months ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
<b>Non-interest income</b>				
Asset management	7,999	7,413	24,165	22,294
Banking	14,066	14,051	40,219	39,647
Foreign exchange revenue	11,358	11,834	33,353	36,311
Trust	14,670	12,568	41,765	38,572
Custody and other administration services	3,318	3,343	9,981	10,271
Other non-interest income	579	711	2,842	4,556
<b>Total non-interest income</b>	<b>51,990</b>	<b>49,920</b>	<b>152,325</b>	<b>151,651</b>
<b>Interest income</b>				
Interest and fees on loans	80,373	65,268	237,646	175,866
Investments (none of the investment securities are intrinsically tax-exempt)				
Available-for-sale	8,797	8,518	26,463	30,023
Held-to-maturity	19,701	20,893	60,794	55,796
Cash and cash equivalents, securities purchased under agreements to resell and short-term investments	28,823	9,969	81,164	15,225
<b>Total interest income</b>	<b>137,694</b>	<b>104,648</b>	<b>406,067</b>	<b>276,910</b>
<b>Interest expense</b>				
Deposits	46,131	11,095	119,316	20,720
Long-term debt	1,371	2,400	6,720	7,201
Securities sold under agreement to repurchase	—	—	9	—
<b>Total interest expense</b>	<b>47,502</b>	<b>13,495</b>	<b>126,045</b>	<b>27,921</b>
<b>Net interest income before provision for credit losses</b>	<b>90,192</b>	<b>91,153</b>	<b>280,022</b>	<b>248,989</b>
Provision for credit (losses) recoveries	(531)	(793)	(2,729)	(783)
<b>Net interest income after provision for credit losses</b>	<b>89,661</b>	<b>90,360</b>	<b>277,293</b>	<b>248,206</b>
Net gains (losses) on equity securities	—	42	43	28
Net realized gains (losses) on available-for-sale investments	(3)	—	(14)	—
Net gains (losses) on other real estate owned	9	(25)	38	14
Net other gains (losses)	—	54	4,015	910
<b>Total other gains (losses)</b>	<b>6</b>	<b>71</b>	<b>4,082</b>	<b>952</b>
<b>Total net revenue</b>	<b>141,657</b>	<b>140,351</b>	<b>433,700</b>	<b>400,809</b>
<b>Non-interest expense</b>				
Salaries and other employee benefits	49,929	41,005	133,452	122,424
Technology and communications	15,958	14,295	44,782	42,411
Professional and outside services	4,294	4,839	14,087	15,323
Property	7,744	7,923	22,682	23,414
Indirect taxes	5,392	5,192	16,435	16,599
Non-service employee benefits expense	1,398	958	4,193	2,823
Marketing	1,549	1,456	4,747	4,547
Amortization of intangible assets	1,438	1,402	4,292	4,286
Other expenses	4,828	4,921	15,514	15,112
<b>Total non-interest expense</b>	<b>92,530</b>	<b>81,991</b>	<b>260,184</b>	<b>246,939</b>
<b>Net income before income taxes</b>	<b>49,127</b>	<b>58,360</b>	<b>173,516</b>	<b>153,870</b>
Income tax benefit (expense)	(381)	(929)	(1,566)	(2,959)
<b>Net income</b>	<b>48,746</b>	<b>57,431</b>	<b>171,950</b>	<b>150,911</b>
<b>Earnings per common share</b>				
Basic earnings per share	1.00	1.16	3.49	3.04
Diluted earnings per share	0.99	1.15	3.46	3.03

The accompanying notes are an integral part of these consolidated financial statements.

**The Bank of N.T. Butterfield & Son Limited**  
**Consolidated Statements of Comprehensive Income (unaudited)**  
*(In thousands of US dollars)*

	Three months ended		Nine months ended	
	<u>September 30, 2023</u>	September 30, 2022	<u>September 30, 2023</u>	September 30, 2022
<b>Net income</b>	48,746	57,431	171,950	150,911
<b>Other comprehensive income (loss), net of taxes</b>				
Unrealized net gains (losses) on translation of net investment in foreign operations	(704)	(4,305)	(348)	(8,388)
Net changes on investments transferred to held-to-maturity	2,651	3,080	7,282	(93,860)
Unrealized net gains (losses) on available-for-sale investments	(30,752)	(88,092)	(16,694)	(218,201)
Employee benefit plans adjustments	508	1,773	1,125	4,382
<b>Other comprehensive income (loss), net of taxes</b>	<b>(28,297)</b>	<b>(87,544)</b>	<b>(8,635)</b>	<b>(316,067)</b>
<b>Total comprehensive income (loss)</b>	<b>20,449</b>	<b>(30,113)</b>	<b>163,315</b>	<b>(165,156)</b>

The accompanying notes are an integral part of these consolidated financial statements.

**The Bank of N.T. Butterfield & Son Limited**  
**Consolidated Statements of Changes in Shareholders' Equity (unaudited)**

	Three months ended				Nine months ended			
	September 30, 2023		September 30, 2022		September 30, 2023		September 30, 2022	
	Number of shares	In thousands of US dollars	Number of shares	In thousands of US dollars	Number of shares	In thousands of US dollars	Number of shares	In thousands of US dollars
<b>Common share capital issued and outstanding</b>								
Balance at beginning of period	49,757,131	498	50,248,890	502	50,277,466	503	49,911,351	499
Retirement of shares	(1,075,131)	(10)	—	—	(1,943,126)	(19)	(102,000)	(1)
Issuance of common shares	7,935	—	9,058	1	355,595	4	448,597	5
<b>Balance at end of period</b>	<b>48,689,935</b>	<b>488</b>	<b>50,257,948</b>	<b>503</b>	<b>48,689,935</b>	<b>488</b>	<b>50,257,948</b>	<b>503</b>
<b>Additional paid-in capital</b>								
Balance at beginning of period		1,024,846		1,023,097		1,032,632		1,017,640
Share-based compensation		5,038		4,351		14,524		11,297
Share-based settlements		22		18		557		613
Retirement of shares		(24,348)		—		(42,151)		(2,080)
Issuance of common shares, net of underwriting discounts and commissions		—		(1)		(4)		(5)
<b>Balance at end of period</b>		<b>1,005,558</b>		<b>1,027,465</b>		<b>1,005,558</b>		<b>1,027,465</b>
<b>Retained earnings (Accumulated deficit)</b>								
Balance at beginning of period		300,375		152,880		229,732		104,329
Net Income for the period		48,746		57,431		171,950		150,911
Common share cash dividends declared and paid, \$0.44 and \$1.32 per share (2022: \$0.44 and \$1.32 per share)		(21,426)		(21,839)		(65,250)		(65,494)
Retirement of shares		(6,870)		—		(15,607)		(1,274)
<b>Balance at end of period</b>		<b>320,825</b>		<b>188,472</b>		<b>320,825</b>		<b>188,472</b>
<b>Treasury common shares</b>								
Balance at beginning of period	619,212	(17,651)	619,212	(20,600)	619,212	(20,600)	619,212	(20,058)
Purchase of treasury common shares	1,075,131	(31,423)	—	—	1,943,126	(55,023)	102,000	(3,897)
Retirement of shares	(1,075,131)	31,229	—	—	(1,943,126)	57,778	(102,000)	3,355
<b>Balance at end of period</b>	<b>619,212</b>	<b>(17,845)</b>	<b>619,212</b>	<b>(20,600)</b>	<b>619,212</b>	<b>(17,845)</b>	<b>619,212</b>	<b>(20,600)</b>
<b>Accumulated other comprehensive income (loss)</b>								
Balance at beginning of period		(357,790)		(353,440)		(377,452)		(124,917)
Other comprehensive income (loss), net of taxes		(28,297)		(87,544)		(8,635)		(316,067)
<b>Balance at end of period</b>		<b>(386,087)</b>		<b>(440,984)</b>		<b>(386,087)</b>		<b>(440,984)</b>
<b>Total shareholders' equity</b>		<b>922,939</b>		<b>754,856</b>		<b>922,939</b>		<b>754,856</b>

The accompanying notes are an integral part of these consolidated financial statements.

The Bank of N.T. Butterfield & Son Limited  
Consolidated Statements of Cash Flows (unaudited)  
(In thousands of US dollars)

Nine months ended

	September 30, 2023	September 30, 2022
<b>Cash flows from operating activities</b>		
Net income	171,950	150,911
<b>Adjustments to reconcile net income to operating cash flows</b>		
Depreciation and amortization	26,850	31,260
Provision for credit losses (recoveries)	2,729	783
Share-based payments and settlements	15,081	11,910
Net change in equity securities at fair value	236	(28)
Net realized (gains) losses on available-for-sale investments	14	—
Net (gains) losses on other real estate owned	(38)	(14)
(Increase) decrease in carrying value of equity method investments	209	238
Dividends received from equity method investments	5,216	119
Net other non-cash movements	1,089	—
<b>Changes in operating assets and liabilities</b>		
(Increase) decrease in accrued interest receivable and other assets	(30,995)	(58,569)
Increase (decrease) in employee benefit plans, accrued interest payable and other liabilities	(6,351)	11,005
<b>Cash provided by (used in) operating activities</b>	<b>185,990</b>	<b>147,615</b>
<b>Cash flows from investing activities</b>		
(Increase) decrease in securities purchased under agreements to resell	(94,242)	(252,838)
Short-term investments other than restricted cash: proceeds from maturities and sales	1,595,489	2,218,276
Short-term investments other than restricted cash: purchases	(1,394,737)	(1,812,381)
Available-for-sale investments: proceeds from sale	5,586	—
Available-for-sale investments: proceeds from maturities and pay downs	240,789	198,451
Available-for-sale investments: purchases	(71,859)	(83,900)
Held-to-maturity investments: proceeds from maturities and pay downs	216,951	327,401
Held-to-maturity investments: purchases	—	(383,332)
Net (increase) decrease in loans	375,529	(131,421)
Additions to premises, equipment and computer software	(21,409)	(20,783)
Proceeds from sale of other real estate owned	359	731
<b>Cash provided by (used in) investing activities</b>	<b>852,456</b>	<b>60,204</b>
<b>Cash flows from financing activities</b>		
Net increase (decrease) in deposits	(1,180,727)	(695,114)
Repayment of long-term debt	(75,000)	—
Common shares repurchased	(55,023)	(3,897)
Cash dividends paid on common shares	(65,250)	(65,494)
<b>Cash provided by (used in) financing activities</b>	<b>(1,376,000)</b>	<b>(764,505)</b>
Net effect of exchange rates on cash, cash equivalents and restricted cash	(1,955)	(139,283)
<b>Net increase (decrease) in cash, cash equivalents and restricted cash</b>	<b>(339,509)</b>	<b>(695,969)</b>
<b>Cash, cash equivalents and restricted cash: beginning of period</b>	<b>2,116,546</b>	<b>2,203,497</b>
<b>Cash, cash equivalents and restricted cash: end of period</b>	<b>1,777,037</b>	<b>1,507,528</b>
<b>Components of cash, cash equivalents and restricted cash at end of period</b>		
Cash and cash equivalents	1,749,778	1,484,819
Restricted cash included in short-term investments on the consolidated balance sheets	27,259	22,709
<b>Total cash, cash equivalents and restricted cash at end of period</b>	<b>1,777,037</b>	<b>1,507,528</b>
<b>Supplemental disclosure of non-cash items</b>		
Transfer to (out of) other real estate owned	336	1,193
Transfer of available-for-sale investments to held-to-maturity investments	—	998,157
Initial recognition of right-of-use assets and operating lease liabilities	—	138

The accompanying notes are an integral part of these consolidated financial statements.

**The Bank of N.T. Butterfield & Son Limited**  
**Notes to the Consolidated Financial Statements (unaudited)**  
*(In thousands of US dollars, unless otherwise stated)*

**Note 1: Nature of business**

The Bank of N.T. Butterfield & Son Limited ("Butterfield", the "Bank" or the "Company") is incorporated under the laws of Bermuda and has a banking license under the Banks and Deposit Companies Act, 1999 ("the Act"). Butterfield is regulated by the Bermuda Monetary Authority ("BMA"), which operates in accordance with Basel principles.

Butterfield is a full service bank and wealth manager headquartered in Hamilton, Bermuda. The Bank operates its business through three geographic segments: Bermuda, the Cayman Islands, and the Channel Islands and the United Kingdom ("UK"), where its principal banking operations are located and where it offers specialized financial services. Butterfield offers banking services, comprised of retail and corporate banking, and wealth management, which consists of trust, private banking, and asset management. In the Bermuda and Cayman Islands segments, Butterfield offers both banking and wealth management. In the Channel Islands and the UK segment, the Bank offers wealth management and residential property lending. Butterfield also has operations in the jurisdictions of The Bahamas, Canada, Mauritius, Singapore and Switzerland, which are included in our Other segment.

The Bank's common shares trade on the New York Stock Exchange under the symbol "NTB" and on the Bermuda Stock Exchange ("BSX") under the symbol "NTB.BH".

**Note 2: Significant accounting policies**

The accompanying unaudited interim consolidated financial statements of the Bank have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") for interim financial information and should be read in conjunction with the Bank's audited financial statements for the year ended December 31, 2022.

In the opinion of Management, these unaudited interim consolidated financial statements reflect all adjustments (consisting primarily of normal recurring accruals) considered necessary for a fair statement of the Bank's financial position and results of operations as at the end of and for the periods presented. The Bank's results for interim periods are not necessarily indicative of results for the full year.

The preparation of financial statements in conformity with GAAP requires Management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the unaudited consolidated financial statements and the reported amounts of revenues and expenses during the reporting period, and actual results could differ from those estimates. Management believes that the most critical accounting policies upon which the financial condition depends and which involve the most complex or subjective decisions or assessments, are as follows:

- Allowance for credit losses
- Fair value of financial instruments
- Impairment of goodwill
- Employee benefit plans
- Share-based compensation

**New Accounting Standards**

**Troubled Debt Restructurings and Vintage Disclosures**

Beginning January 1, 2023, the Bank adopted Accounting Standards Update ("ASU") 2022-02, Financial Instruments - Credit Losses (Topic 326), Troubled Debt Restructurings and Vintage Disclosures. This ASU eliminates the accounting guidance for troubled debt restructurings ("TDRs") by creditors that have adopted the CECL model while enhancing disclosure requirements for loan refinancings and restructurings made with borrowers experiencing financial difficulty. In addition, this ASU also requires disclosure of current period gross charge-offs by year of origination. The Bank has elected to adopt these amendments on a prospective basis.

Accordingly, from the date of adoption, the Bank will evaluate whether a modified loan represents a new loan or a continuation of an existing loan. If the effective yield on the restructured loan is at least equal to the effective yield for comparable loans with similar collection risks and the modifications to the original loan are more than minor, the Bank will derecognize the existing loan and recognize the restructured loan as a new loan. If a loan restructuring does not meet these conditions, the Bank will account for the modification as a continuation of the existing loan. See Note 6: Loans for the new required disclosures.

**New Accounting Pronouncements**

There were no accounting developments issued during the nine months ended September 30, 2023 or accounting standards pending adoption which impacted the Bank.

**Note 3: Cash and cash equivalents**

	September 30, 2023	December 31, 2022
<b>Non-interest bearing</b>		
Cash and demand deposits with banks	96,703	93,032
<b>Interest bearing<sup>1</sup></b>		
Demand deposits with banks	167,775	258,239
Cash equivalents	1,485,300	1,749,516
<b>Sub-total - Interest bearing</b>	<b>1,653,075</b>	<b>2,007,755</b>
<b>Total cash and cash equivalents</b>	<b>1,749,778</b>	<b>2,100,787</b>

<sup>1</sup>Interest bearing cash and cash equivalents includes certain demand deposits with banks as at September 30, 2023 in the amount of \$111.5 million (December 31, 2022: \$157.2 million) that are earning interest at a negligible rate.



**Note 4: Short-term investments**

	September 30, 2023	December 31, 2022
<b>Unrestricted</b>		
Maturing within three months	368,199	390,540
Maturing between three to six months	301,679	421,734
Maturing between six to twelve months	41,673	56,445
<b>Total unrestricted short-term investments</b>	<b>711,551</b>	<b>868,719</b>
<b>Affected by drawing restrictions related to minimum reserve and derivative margin requirements</b>		
Interest earning demand and term deposits	27,259	15,759
<b>Total restricted short-term investments</b>	<b>27,259</b>	<b>15,759</b>
<b>Total short-term investments</b>	<b>738,810</b>	<b>884,478</b>

**Note 5: Investment in securities**

**Amortized Cost, Carrying Amount and Fair Value**

On the consolidated balance sheets, equity securities and available-for-sale ("AFS") investments are carried at fair value and held-to-maturity ("HTM") investments are carried at amortized cost.

	September 30, 2023				December 31, 2022			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
<b>Equity securities</b>								
Mutual funds	—	—	—	—	724	—	(488)	236
<b>Total equity securities</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>724</b>	<b>—</b>	<b>(488)</b>	<b>236</b>
<b>Available-for-sale</b>								
US government and federal agencies	1,749,637	—	(227,848)	1,521,789	1,919,285	14	(206,523)	1,712,776
Non-US governments debt securities	266,321	—	(7,557)	258,764	262,892	—	(11,429)	251,463
Asset-backed securities - Student loans	40	—	—	40	5,640	—	(14)	5,626
Residential mortgage-backed securities	19,949	—	(2,602)	17,347	21,261	—	(2,261)	19,000
<b>Total available-for-sale</b>	<b>2,035,947</b>	<b>—</b>	<b>(238,007)</b>	<b>1,797,940</b>	<b>2,209,078</b>	<b>14</b>	<b>(220,227)</b>	<b>1,988,865</b>
<b>Held-to-maturity<sup>1</sup></b>								
US government and federal agencies	3,520,650	—	(691,067)	2,829,583	3,738,080	—	(540,572)	3,197,508
<b>Total held-to-maturity</b>	<b>3,520,650</b>	<b>—</b>	<b>(691,067)</b>	<b>2,829,583</b>	<b>3,738,080</b>	<b>—</b>	<b>(540,572)</b>	<b>3,197,508</b>

<sup>1</sup>For the nine months ended September 30, 2023, and the nine months ended September 30, 2022, the provision for credit losses for HTM investments was nil.

**Investments with Unrealized Loss Positions**

The Bank does not believe that the AFS debt securities that were in an unrealized loss position as of September 30, 2023, comprising 170 securities representing 100% of the AFS portfolios' carrying value (December 31, 2022: 163 and 99.8%), represent credit losses. Total gross unrealized AFS losses were 13.2% of the fair value of the affected securities (December 31, 2022: 11.1%).

The Bank's HTM debt securities are comprised of US government and federal agencies securities and have a zero credit loss assumption under the CECL model. HTM debt securities that were in an unrealized loss position as of September 30, 2023, were comprised of 219 securities representing 100% of the HTM portfolios' carrying value (December 31, 2022: 220 and 100.0%). Total gross unrealized HTM losses were 24.4% of the fair value of affected securities (December 31, 2022: 16.9%).

Management does not intend to sell and it is likely that management will not be required to sell the securities prior to the anticipated recovery of the cost of these securities. Unrealized losses were attributable primarily to changes in market interest rates, relative to when the investment securities were purchased, and not due to a decrease in the credit quality of the investment securities. The issuers continue to make timely principal and interest payments on the securities. The following describes the processes for identifying credit impairment in security types with the most significant unrealized losses as shown in the preceding tables.

Management believes that all the **US government and federal agencies securities** do not have any credit losses, given the explicit and implicit guarantees provided by the US federal government.

Management believes that all the **Non-US governments debt securities** do not have any credit losses, given the explicit guarantee provided by the issuing government.

Investments in **Asset-backed securities - Student loans** are composed of securities collateralized by Federal Family Education Loan Program loans ("FFELP loans"). FFELP loans benefit from a US federal government guarantee of at least 97% of defaulted principal and accrued interest, with additional credit support provided in the form of over-collateralization, subordination and excess spread, which collectively total in excess of 100%. Accordingly, the vast majority of FFELP loan-backed securities are not exposed to traditional consumer credit risk.

**The Bank of N.T. Butterfield & Son Limited**  
**Notes to the Consolidated Financial Statements (unaudited) (continued)**  
*(In thousands of US dollars, unless otherwise stated)*

Investments in **Residential mortgage-backed securities** relates to 13 securities (December 31, 2022: 13) which are rated AAA and possess similar significant credit enhancement as described above. No credit losses were recognized on these securities as the weighted average credit support and the weighted average loan-to-value ratios range from 15.6% - 49.1% and 46.1% - 54.8%, respectively. Current credit support is significantly greater than any delinquencies experienced on the underlying mortgages.

In the following tables, debt securities with unrealized losses that are not deemed to be credit impaired and for which an allowance for credit losses has not been recorded are categorized as being in a loss position for "less than 12 months" or "12 months or more" based on the point in time that the fair value most recently declined below the amortized cost basis.

	<u>Less than 12 months</u>		<u>12 months or more</u>		Total fair value	Total gross unrealized losses
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses		
<b>September 30, 2023</b>						
<b>Available-for-sale securities with unrealized losses</b>						
US government and federal agencies	78,492	(1,102)	1,443,297	(226,746)	1,521,789	(227,848)
Non-US governments debt securities	—	—	258,764	(7,557)	258,764	(7,557)
Asset-backed securities - Student loans	—	—	40	—	40	—
Residential mortgage-backed securities	—	—	17,347	(2,602)	17,347	(2,602)
<b>Total available-for-sale securities with unrealized losses</b>	<b>78,492</b>	<b>(1,102)</b>	<b>1,719,448</b>	<b>(236,905)</b>	<b>1,797,940</b>	<b>(238,007)</b>
<b>Held-to-maturity securities with unrealized losses</b>						
US government and federal agencies	—	—	2,829,583	(691,067)	2,829,583	(691,067)

	<u>Less than 12 months</u>		<u>12 months or more</u>		Total fair value	Total gross unrealized losses
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses		
<b>December 31, 2022</b>						
<b>Available-for-sale securities with unrealized losses</b>						
US government and federal agencies	713,462	(68,016)	995,154	(138,507)	1,708,616	(206,523)
Non-US governments debt securities	—	—	251,463	(11,429)	251,463	(11,429)
Asset-backed securities - Student loans	—	—	5,626	(14)	5,626	(14)
Residential mortgage-backed securities	14,474	(1,618)	4,526	(643)	19,000	(2,261)
<b>Total available-for-sale securities with unrealized losses</b>	<b>727,936</b>	<b>(69,634)</b>	<b>1,256,769</b>	<b>(150,593)</b>	<b>1,984,705</b>	<b>(220,227)</b>
<b>Held-to-maturity securities with unrealized losses</b>						
US government and federal agencies	1,462,005	(142,228)	1,735,503	(398,344)	3,197,508	(540,572)

**Investment Maturities**

The following table presents the remaining term to contractual maturity of the Bank's securities. The actual maturities may differ as certain securities offer prepayment options to the borrowers.

	<u>Remaining term to maturity</u>						Carrying amount
	<u>Within 3 months</u>	<u>3 to 12 months</u>	<u>1 to 5 years</u>	<u>5 to 10 years</u>	<u>Over 10 years</u>	<u>No specific or single maturity</u>	
<b>September 30, 2023</b>							
<b>Available-for-sale</b>							
US government and federal agencies	—	202,473	494,506	—	—	824,810	1,521,789
Non-US governments debt securities	22,392	150,151	86,221	—	—	—	258,764
Asset-backed securities - Student loans	—	—	—	—	—	40	40
Residential mortgage-backed securities	—	—	—	—	—	17,347	17,347
<b>Total available-for-sale</b>	<b>22,392</b>	<b>352,624</b>	<b>580,727</b>	<b>—</b>	<b>—</b>	<b>842,197</b>	<b>1,797,940</b>
<b>Held-to-maturity</b>							
US government and federal agencies	—	—	—	—	—	3,520,650	3,520,650

**The Bank of N.T. Butterfield & Son Limited**  
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**Pledged Investments**

The Bank pledges certain US government and federal agencies investment securities to further secure the Bank's issued customer deposit products. The secured party does not have the right to sell or repledge the collateral.

	September 30, 2023		December 31, 2022	
	Amortized cost	Fair value	Amortized cost	Fair value
<b>Pledged Investments</b>				
Available-for-sale	28,632	25,567	—	—
Held-to-maturity	135,543	113,724	32,938	24,991

**Sale Proceeds and Realized Gains and Losses of AFS Securities**

	Nine months ended							
	September 30, 2023				September 30, 2022			
	Sale proceeds	Gross realized gains	Gross realized (losses)	Transfers to HTM	Sale proceeds	Gross realized gains	Gross realized (losses)	Transfers to HTM <sup>1</sup>
Asset-backed securities - Student loans	5,586	—	(14)	—	—	—	—	—
US government and federal agencies	—	—	—	—	—	—	—	998,157
<b>Total</b>	5,586	—	(14)	—	—	—	—	998,157

<sup>1</sup>During the nine months ended September 30, 2022, certain investments were transferred out of the AFS categorization and into HTM. The transfers were recorded at fair value of the securities on the date of transfer. The related net unrealized losses of \$99.1 million that were recorded in AOCIL will be accreted over the remaining life of the transferred investments using the effective interest rate method.

**Taxability of Interest Income**

None of the investments' interest income have received a specific preferential income tax treatment in any of the jurisdictions in which the Bank owns investments.

**Note 6: Loans**

The principal means of securing residential mortgages, personal, credit card and business loans are entitlements over assets and guarantees. Mortgage loans are generally repayable over periods of up to thirty years and personal and business loans are generally repayable over terms not exceeding five years. Government loans are repayable over a variety of terms which are individually negotiated. Amounts owing on credit cards are revolving and typically a minimum amount is due within 30 days from billing. The credit card portfolio is managed as a single portfolio and includes consumer and business cards. The effective yield on total loans as at September 30, 2023 is 6.46% (December 31, 2022: 5.91%). The interest receivable on total loans as at September 30, 2023 is \$21.7 million (December 31, 2022: \$16.6 million). The interest receivable is included in Accrued interest and other assets on the consolidated balance sheets and is excluded from all loan amounts disclosed in this note.

**Loans' Credit Quality**

The four credit quality classifications set out in the following tables are defined below and describe the credit quality of the Bank's lending portfolio. These classifications each encompass a range of more granular internal credit rating grades. Loans' internal credit ratings are assigned by the Bank's customer relationship managers as well as members of the Bank's jurisdictional and Group Credit Committees. The borrowers' financial condition is documented at loan origination and maintained periodically thereafter at a frequency which can be up to monthly for certain loans. The loans' performing status, as well as current economic trends, are continuously monitored. The Bank's jurisdictional and Group Credit Committees meet on a monthly basis. The Bank also has a Group Provisions and Impairments Committee which is responsible for approving significant provisions and other impairment charges.

A **pass** loan shall mean a loan that is expected to be repaid as agreed. A loan is classified as pass where the Bank is not expected to face repayment difficulties because the present and projected cash flows are sufficient to repay the debt and the repayment schedule as established by the agreement is being followed. Loans in this category are reviewed by the Bank's management on at least an annual basis.

A **special mention** loan shall mean a loan under close monitoring by the Bank's management on at least a quarterly basis. Loans in this category are currently still performing, but are potentially weak and present an undue credit risk exposure, but not to the point of justifying a classification of substandard.

A **substandard** loan shall mean a loan whose evident unreliability makes repayment doubtful and there is a threat of loss to the Bank unless the unreliability is averted. Loans in this category are under close monitoring by the Bank's management on at least a quarterly basis.

A **non-accrual** loan shall mean either management is of the opinion full payment of principal or interest is in doubt or that the principal or interest is 90 days past due unless it is a residential mortgage loan which is well secured and collection efforts are reasonably expected to result in amounts due. Loans in this category are under close monitoring by the Bank's management on at least a quarterly basis.

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*(In thousands of US dollars, unless otherwise stated)*

The amortized cost of loans by credit quality classification and allowance for expected credit losses by class of loans is as follows:

September 30, 2023	Pass	Special mention	Substandard	Non-accrual	Total amortized cost	Allowance for expected credit losses	Total net loans
<b>Commercial loans</b>							
Government	277,981	—	—	—	277,981	(992)	276,989
Commercial and industrial	267,173	—	870	18,401	286,444	(10,174)	276,270
Commercial overdrafts	107,284	—	186	382	107,852	(387)	107,465
<b>Total commercial loans</b>	<b>652,438</b>	<b>—</b>	<b>1,056</b>	<b>18,783</b>	<b>672,277</b>	<b>(11,553)</b>	<b>660,724</b>
<b>Commercial real estate loans</b>							
Commercial mortgage	586,094	342	1,411	3,097	590,944	(1,448)	589,496
Construction	11,868	—	—	—	11,868	—	11,868
<b>Total commercial real estate loans</b>	<b>597,962</b>	<b>342</b>	<b>1,411</b>	<b>3,097</b>	<b>602,812</b>	<b>(1,448)</b>	<b>601,364</b>
<b>Consumer loans</b>							
Automobile financing	19,582	—	17	162	19,761	(77)	19,684
Credit card	79,811	—	480	—	80,291	(1,844)	78,447
Overdrafts	39,608	—	—	43	39,651	(300)	39,351
Other consumer <sup>1</sup>	41,625	—	1,611	803	44,039	(1,274)	42,765
<b>Total consumer loans</b>	<b>180,626</b>	<b>—</b>	<b>2,108</b>	<b>1,008</b>	<b>183,742</b>	<b>(3,495)</b>	<b>180,247</b>
<b>Residential mortgage loans</b>	<b>3,141,713</b>	<b>18,172</b>	<b>120,556</b>	<b>36,514</b>	<b>3,316,955</b>	<b>(9,521)</b>	<b>3,307,434</b>
<b>Total</b>	<b>4,572,739</b>	<b>18,514</b>	<b>125,131</b>	<b>59,402</b>	<b>4,775,786</b>	<b>(26,017)</b>	<b>4,749,769</b>

<sup>1</sup>Other consumer loans' amortized cost includes \$7 million of cash and portfolio secured lending and \$26 million of lending secured by buildings in construction or other collateral.

December 31, 2022	Pass	Special mention	Substandard	Non-accrual	Total amortized cost	Allowance for expected credit losses	Total net loans
<b>Commercial loans</b>							
Government	281,518	—	—	—	281,518	(1,368)	280,150
Commercial and industrial	298,137	—	796	18,461	317,394	(10,359)	307,035
Commercial overdrafts	123,874	—	632	45	124,551	(416)	124,135
<b>Total commercial loans</b>	<b>703,529</b>	<b>—</b>	<b>1,428</b>	<b>18,506</b>	<b>723,463</b>	<b>(12,143)</b>	<b>711,320</b>
<b>Commercial real estate loans</b>							
Commercial mortgage	613,090	2,082	1,503	3,182	619,857	(884)	618,973
Construction	7,474	—	—	—	7,474	—	7,474
<b>Total commercial real estate loans</b>	<b>620,564</b>	<b>2,082</b>	<b>1,503</b>	<b>3,182</b>	<b>627,331</b>	<b>(884)</b>	<b>626,447</b>
<b>Consumer loans</b>							
Automobile financing	20,673	—	—	161	20,834	(93)	20,741
Credit card	77,419	—	295	—	77,714	(1,043)	76,671
Overdrafts	44,414	—	—	6	44,420	(355)	44,065
Other consumer <sup>1</sup>	56,699	—	—	801	57,500	(1,205)	56,295
<b>Total consumer loans</b>	<b>199,205</b>	<b>—</b>	<b>295</b>	<b>968</b>	<b>200,468</b>	<b>(2,696)</b>	<b>197,772</b>
<b>Residential mortgage loans</b>	<b>3,419,186</b>	<b>8,132</b>	<b>102,413</b>	<b>40,398</b>	<b>3,570,129</b>	<b>(9,238)</b>	<b>3,560,891</b>
<b>Total</b>	<b>4,942,484</b>	<b>10,214</b>	<b>105,639</b>	<b>63,054</b>	<b>5,121,391</b>	<b>(24,961)</b>	<b>5,096,430</b>

<sup>1</sup>Other consumer loans' amortized cost includes \$9 million of cash and portfolio secured lending and \$37 million of lending secured by buildings in construction or other collateral.

**The Bank of N.T. Butterfield & Son Limited**  
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Based on the most recent analysis performed, the amortized cost of loans by year of origination and credit quality classification is as follows:

September 30, 2023	Pass	Special mention	Substandard	Non-accrual	Total amortized cost
<b>Loans by origination year</b>					
2023	386,117	—	—	4	386,121
2022	873,050	—	17	944	874,011
2021	543,177	2,975	—	22	546,174
2020	394,899	438	2,572	28	397,937
2019	562,474	—	6,000	2,931	571,405
Prior	1,572,467	14,759	115,876	55,048	1,758,150
<b>Overdrafts and credit cards</b>	<b>240,555</b>	<b>342</b>	<b>666</b>	<b>425</b>	<b>241,988</b>
<b>Total amortized cost</b>	<b>4,572,739</b>	<b>18,514</b>	<b>125,131</b>	<b>59,402</b>	<b>4,775,786</b>

December 31, 2022	Pass	Special mention	Substandard	Non-accrual	Total amortized cost
<b>Loans by origination year</b>					
2022	971,776	—	—	4	971,780
2021	646,436	—	—	20	646,456
2020	485,944	142	508	23	486,617
2019	680,939	—	277	3,118	684,334
2018	393,623	—	12,133	1,355	407,111
Prior	1,499,410	9,767	91,795	58,483	1,659,455
<b>Overdrafts and credit cards</b>	<b>264,356</b>	<b>305</b>	<b>926</b>	<b>51</b>	<b>265,638</b>
<b>Total amortized cost</b>	<b>4,942,484</b>	<b>10,214</b>	<b>105,639</b>	<b>63,054</b>	<b>5,121,391</b>

**Age Analysis of Past Due Loans (Including Non-Accrual Loans)**

The following tables summarize the past due status of the loans. The aging of past due amounts are determined based on the contractual delinquency status of payments under the loan and this aging may be affected by the timing of the last business day at period end. Loans less than 30 days past due are included in current loans.

September 30, 2023	30 - 59 days	60 - 89 days	More than 90 days	Total past due loans	Total current	Total amortized cost
<b>Commercial loans</b>						
Government	—	—	—	—	277,981	277,981
Commercial and industrial	173	150	18,401	18,724	267,720	286,444
Commercial overdrafts	—	—	382	382	107,470	107,852
<b>Total commercial loans</b>	<b>173</b>	<b>150</b>	<b>18,783</b>	<b>19,106</b>	<b>653,171</b>	<b>672,277</b>
<b>Commercial real estate loans</b>						
Commercial mortgage	468	358	3,097	3,923	587,021	590,944
Construction	—	—	—	—	11,868	11,868
<b>Total commercial real estate loans</b>	<b>468</b>	<b>358</b>	<b>3,097</b>	<b>3,923</b>	<b>598,889</b>	<b>602,812</b>
<b>Consumer loans</b>						
Automobile financing	49	—	162	211	19,550	19,761
Credit card	356	559	480	1,395	78,896	80,291
Overdrafts	—	—	43	43	39,608	39,651
Other consumer	208	881	2,286	3,375	40,664	44,039
<b>Total consumer loans</b>	<b>613</b>	<b>1,440</b>	<b>2,971</b>	<b>5,024</b>	<b>178,718</b>	<b>183,742</b>
<b>Residential mortgage loans</b>	<b>23,585</b>	<b>15,776</b>	<b>78,630</b>	<b>117,991</b>	<b>3,198,964</b>	<b>3,316,955</b>
<b>Total amortized cost</b>	<b>24,839</b>	<b>17,724</b>	<b>103,481</b>	<b>146,044</b>	<b>4,629,742</b>	<b>4,775,786</b>

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**Notes to the Consolidated Financial Statements (unaudited) (continued)**  
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December 31, 2022	30 - 59 days	60 - 89 days	More than 90 days	Total past due loans	Total current	Total amortized cost
<b>Commercial loans</b>						
Government	—	—	—	—	281,518	281,518
Commercial and industrial	5	—	18,461	18,466	298,928	317,394
Commercial overdrafts	—	—	45	45	124,506	124,551
<b>Total commercial loans</b>	5	—	18,506	18,511	704,952	723,463
<b>Commercial real estate loans</b>						
Commercial mortgage	363	—	3,181	3,544	616,313	619,857
Construction	—	—	—	—	7,474	7,474
<b>Total commercial real estate loans</b>	363	—	3,181	3,544	623,787	627,331
<b>Consumer loans</b>						
Automobile financing	104	5	160	269	20,565	20,834
Credit card	423	231	295	949	76,765	77,714
Overdrafts	—	—	6	6	44,414	44,420
Other consumer	179	16	797	992	56,508	57,500
<b>Total consumer loans</b>	706	252	1,258	2,216	198,252	200,468
<b>Residential mortgage loans</b>	30,813	4,081	49,486	84,380	3,485,749	3,570,129
<b>Total amortized cost</b>	31,887	4,333	72,431	108,651	5,012,740	5,121,391

**Changes in Allowances For Credit Losses**

The increase in the allowance for credit losses during the nine months ended September 30, 2023 was primarily attributable to an increase in credit card provisions, changes in specific provisions on identified loans, changes in macroeconomic factors, such as GDP forecasts, and partially offset by net paydowns and maturities in the portfolio. As per the Bank's accounting policy, as disclosed in Note 2 of the December 31, 2022 Audited Consolidated Financial Statements, the Bank continuously collects and maintains attributes related to financial instruments within the scope of CECL, including current conditions, and reasonable and supportable assumptions about future economic conditions.

	Nine months ended September 30, 2023				
	Commercial	Commercial real estate	Consumer	Residential mortgage	Total
Balance at the beginning of period	12,143	884	2,696	9,238	24,961
Provision increase (decrease)	546	574	933	705	2,758
Recoveries of previous charge-offs	70	—	787	574	1,431
Charge-offs, by origination year					
2023	—	—	—	—	—
2022	—	—	(29)	—	(29)
2021	—	—	(19)	—	(19)
2020	—	—	(20)	—	(20)
2019	—	—	(2)	—	(2)
Prior	(1,147)	(9)	(122)	(1,162)	(2,440)
Overdrafts and credit cards	(63)	—	(711)	—	(774)
Other	4	(1)	(18)	166	151
<b>Allowances for expected credit losses at end of period</b>	11,553	1,448	3,495	9,521	26,017

**The Bank of N.T. Butterfield & Son Limited**  
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*(In thousands of US dollars, unless otherwise stated)*

	Nine months ended September 30, 2022				
	Commercial	Commercial real estate	Consumer	Residential mortgage	Total
Balance at the beginning of period	11,126	1,168	3,020	12,759	28,073
Provision increase (decrease)	1,302	(192)	560	(546)	1,124
Recoveries of previous charge-offs	1	—	930	240	1,171
Charge-offs	(18)	—	(2,350)	(2,683)	(5,051)
Other	(72)	(1)	(10)	(171)	(254)
<b>Allowances for expected credit losses at end of period</b>	<b>12,339</b>	<b>975</b>	<b>2,150</b>	<b>9,599</b>	<b>25,063</b>

**Collateral-dependent loans**

Management identified that the repayment of certain commercial and consumer mortgage loans is expected to be provided substantially through the operation or the sale of the collateral pledged to the Bank ("collateral-dependent loans"). The Bank believes that for the vast majority of loans identified as collateral-dependent, the sale of the collateral will be sufficient to fully reimburse the loan's carrying amount.

**Non-Performing Loans**

During the nine months ended September 30, 2023, no interest was recognized on non-accrual loans. Non-performing loans at September 30, 2023 include PCD loans, which have all been on non-accrual status since their acquisition. No credit deteriorated loans were purchased during the period.

	September 30, 2023				December 31, 2022			
	Non-accrual loans with an allowance	Non-accrual loans without an allowance	Past due more than 90 days and accruing	Total non-performing loans	Non-accrual loans with an allowance	Non-accrual loans without an allowance	Past due more than 90 days and accruing	Total non-performing loans
<b>Commercial loans</b>								
Commercial and industrial	18,099	302	—	18,401	18,159	302	—	18,461
Commercial overdrafts	—	382	—	382	—	45	—	45
<b>Total commercial loans</b>	<b>18,099</b>	<b>684</b>	<b>—</b>	<b>18,783</b>	<b>18,159</b>	<b>347</b>	<b>—</b>	<b>18,506</b>
<b>Commercial real estate loans</b>								
Commercial mortgage	1,921	1,176	—	3,097	1,494	1,688	—	3,182
<b>Total commercial real estate loans</b>	<b>1,921</b>	<b>1,176</b>	<b>—</b>	<b>3,097</b>	<b>1,494</b>	<b>1,688</b>	<b>—</b>	<b>3,182</b>
<b>Consumer loans</b>								
Automobile financing	128	34	—	162	141	20	—	161
Credit card	—	—	480	480	—	—	295	295
Overdrafts	—	43	—	43	—	6	—	6
Other consumer	532	270	1,611	2,413	649	152	—	801
<b>Total consumer loans</b>	<b>660</b>	<b>347</b>	<b>2,091</b>	<b>3,098</b>	<b>790</b>	<b>178</b>	<b>295</b>	<b>1,263</b>
<b>Residential mortgage loans</b>	<b>20,739</b>	<b>15,775</b>	<b>47,677</b>	<b>84,191</b>	<b>20,621</b>	<b>19,777</b>	<b>10,964</b>	<b>51,362</b>
<b>Total non-performing loans</b>	<b>41,419</b>	<b>17,982</b>	<b>49,768</b>	<b>109,169</b>	<b>41,064</b>	<b>21,990</b>	<b>11,259</b>	<b>74,313</b>

**Loan Modifications Made to Borrowers Experiencing Financial Difficulty (from January 1, 2023)**

The following table summarizes the amortized cost basis of loan modifications made to borrowers experiencing financial difficulty during the nine-month period ended September 30, 2023.

September 30, 2023	Amortized cost basis			In % of the class of loans	Weighted average financial effects	
	Term extension and interest rate reduction	Term extension	Interest rate reduction		Months of term extension	Interest rate reduction
<b>Residential mortgage loans</b>	<b>2,012</b>	<b>2,222</b>	<b>5,221</b>	<b>0.3 %</b>	<b>31</b>	<b>3.0 %</b>

**Age analysis of modified loans**

As at September 30, 2023, except for \$0.3 million of residential mortgages for which a reduction in interest rate was granted and which are 30 to 59 days past due, all loans to borrowers experiencing financial difficulty for which a concession was granted in the preceding nine-month period are current.

**Modified loans that subsequently defaulted**

As at September 30, 2023, no loans to borrowers experiencing financial difficulty for which a concession was granted in the preceding nine-month period had a payment default.

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**Loans modified in a TDR (Prior to January 1, 2023)**

As at December 31, 2022, the Bank had no loans that were modified in a TDR during the preceding 12 months that subsequently defaulted.

<b>TDRs (prior to January 1, 2023) Outstanding</b>	December 31, 2022	
	Accrual	Non-accrual
Commercial loans	796	—
Commercial real estate loans	1,503	2,357
Residential mortgage loans	59,175	10,342
<b>Total TDRs outstanding</b>	<b>61,474</b>	<b>12,699</b>

**Note 7: Credit risk concentrations**

Concentrations of credit risk in the lending and off-balance sheet credit-related arrangements portfolios arise when a number of customers are engaged in similar business activities, are in the same geographic region, or when they have similar economic features that would cause their ability to meet contractual obligations to be similarly affected by changes in economic conditions. The Bank regularly monitors various segments of its credit risk portfolio to assess potential concentrations of risks and to obtain collateral when deemed necessary. In the Bank's commercial portfolio, risk concentrations are evaluated primarily by industry and by geographic region of loan origination. In the consumer portfolio, concentrations are evaluated primarily by products. Credit exposures include loans, guarantees and acceptances, letters of credit and commitments for undrawn lines of credit. Unconditionally cancellable credit cards and overdraft lines of credit are excluded from the tables below.

The following table summarizes the credit exposure of the Bank by geographic region. The exposure amounts disclosed below do not include accrued interest and are gross of allowances for credit losses and gross of collateral held.

<b>Geographic region</b>	September 30, 2023				December 31, 2022			
	Cash due from banks, resell agreements and short-term investments	Loans	Off-balance sheet	Total credit exposure	Cash due from banks, resell agreements and short-term investments	Loans	Off-balance sheet	Total credit exposure
Belgium	5,183	—	—	5,183	2,641	—	—	2,641
Bermuda	43,720	1,792,815	199,635	2,036,170	40,671	1,920,467	243,904	2,205,042
Canada	813,648	—	—	813,648	1,216,876	—	—	1,216,876
Cayman	31,581	1,175,123	186,655	1,393,359	36,609	1,236,373	233,599	1,506,581
Germany	1,588	—	—	1,588	20,422	—	—	20,422
Guernsey	2	617,377	197,556	814,935	1	674,562	199,714	874,277
Ireland	43,278	—	—	43,278	26,597	—	—	26,597
Japan	13,591	—	—	13,591	13,071	—	—	13,071
Jersey	—	170,497	14,734	185,231	—	150,769	35,042	185,811
Norway	355,540	—	—	355,540	99,777	—	—	99,777
Switzerland	2,094	—	—	2,094	2,748	—	—	2,748
The Bahamas	1,568	5,833	—	7,401	1,521	7,510	—	9,031
United Kingdom	727,571	1,014,141	53,846	1,795,558	715,750	1,131,710	108,406	1,955,866
United States	600,514	—	—	600,514	865,671	—	—	865,671
Other	2,823	—	—	2,823	2,781	—	—	2,781
<b>Total gross exposure</b>	<b>2,642,701</b>	<b>4,775,786</b>	<b>652,426</b>	<b>8,070,913</b>	<b>3,045,136</b>	<b>5,121,391</b>	<b>820,665</b>	<b>8,987,192</b>



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**Note 8: Deposits**

**By Maturity**

September 30, 2023	Demand		Total demand deposits	Term				Total term deposits	Total deposits
	Non-interest bearing	Interest bearing		Within 3 months	3 to 6 months	6 to 12 months	After 12 months		
Demand or less than \$100k <sup>1</sup>	2,568,879	5,722,361	8,291,240	38,408	16,324	17,152	10,423	82,307	8,373,547
Term - \$100k or more	N/A	N/A	—	2,415,661	591,333	399,383	81,102	3,487,479	3,487,479
<b>Total deposits</b>	<b>2,568,879</b>	<b>5,722,361</b>	<b>8,291,240</b>	<b>2,454,069</b>	<b>607,657</b>	<b>416,535</b>	<b>91,525</b>	<b>3,569,786</b>	<b>11,861,026</b>

December 31, 2022	Demand		Total demand deposits	Term				Total term deposits	Total deposits
	Non-interest bearing	Interest bearing		Within 3 months	3 to 6 months	6 to 12 months	After 12 months		
Demand or less than \$100k <sup>1</sup>	3,039,701	6,844,127	9,883,828	32,764	9,814	12,848	11,391	66,817	9,950,645
Term - \$100k or more	N/A	N/A	—	2,093,464	447,471	423,737	75,759	3,040,431	3,040,431
<b>Total deposits</b>	<b>3,039,701</b>	<b>6,844,127</b>	<b>9,883,828</b>	<b>2,126,228</b>	<b>457,285</b>	<b>436,585</b>	<b>87,150</b>	<b>3,107,248</b>	<b>12,991,076</b>

<sup>1</sup>The weighted-average interest rate on interest-bearing demand deposits as at September 30, 2023 is 0.79% (December 31, 2022: 0.47%).

**By Type and Segment**

	September 30, 2023			December 31, 2022		
	Payable on demand	Payable on a fixed date	Total	Payable on demand	Payable on a fixed date	Total
Bermuda	3,747,364	799,204	4,546,568	3,813,274	674,895	4,488,169
Cayman	2,834,702	996,572	3,831,274	3,641,646	651,168	4,292,814
Channel Islands and the UK	1,709,174	1,774,010	3,483,184	2,428,908	1,781,185	4,210,093
<b>Total deposits</b>	<b>8,291,240</b>	<b>3,569,786</b>	<b>11,861,026</b>	<b>9,883,828</b>	<b>3,107,248</b>	<b>12,991,076</b>

**Note 9: Employee benefit plans**

The Bank maintains trustee pension plans including non-contributory defined benefit plans and a number of defined contribution plans, and provides post-retirement medical benefits to its qualifying retirees. The defined benefit provisions under the pension plans are generally based upon years of service and average salary during the relevant years of employment. The defined benefit and post-retirement medical plans are not open to new participants and are non-contributory and the funding required is provided by the Bank, based upon the advice of independent actuaries. The defined benefit pension plans are in the Bermuda, Guernsey and UK jurisdictions, and the defined benefit post-retirement medical plan is in Bermuda. The Bank has a residual obligation on top of its defined contribution plan in Mauritius.

The Bank included an estimate of the 2023 Bank contribution and estimated benefit payments for the next ten years under the pension and post-retirement plans in its audited financial statements for the year-ended December 31, 2022. During the nine months ended September 30, 2023, there have been no material revisions to these estimates.

Line item in the consolidated statements of operations	Three months ended		Nine months ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
<b>Defined benefit pension expense (income)</b>				
Interest cost	1,346	741	4,024	2,280
Expected return on plan assets	(1,534)	(1,624)	(4,586)	(4,998)
Amortization of net actuarial (gains) losses	571	552	1,713	1,666
Amortization of prior service (credit) cost	20	19	59	63
Settlement (gain) loss	—	26	—	(794)
<b>Total defined benefit pension expense (income)</b>	<b>403</b>	<b>(286)</b>	<b>1,210</b>	<b>(1,783)</b>
<b>Post-retirement medical benefit expense (income)</b>				
Service cost	19	32	57	97
Interest cost	1,197	778	3,590	2,336
Amortization of net actuarial (gains) losses	131	361	393	1,083
Amortization of prior service (credit) cost	(333)	131	(1,000)	393
<b>Total post-retirement medical benefit expense (income)</b>	<b>1,014</b>	<b>1,302</b>	<b>3,040</b>	<b>3,909</b>

The components of defined benefit pension expense (income) and post-retirement benefit expense (income) other than the service cost component are included in the line item non-service employee benefits expense in the consolidated statements of income.

**Note 10: Credit related arrangements, repurchase agreements and commitments**

**Commitments**

The Bank enters into contractual commitments to extend credit, normally with fixed expiration dates or termination clauses, at specified rates and for specific purposes. Substantially all of the Bank's commitments to extend credit are contingent upon customers maintaining specific credit standards at the time of loan funding. Management assesses the credit risk associated with certain commitments to extend credit in determining the level of the allowance for expected credit losses.

The Bank has a facility with one of its custodians, whereby the Bank may offer up to US\$200 million of standby letters of credit to its customers on a fully secured basis. Under the standard terms of the facility, the custodian has the right to set-off against securities held of 110% of the utilized facility. At September 30, 2023, \$118.9 million (December 31, 2022: \$121.3 million) of standby letters of credit were issued under this facility.

<b>Outstanding unfunded commitments to extend credit</b>	<b>September 30, 2023</b>	December 31, 2022
Commitments to extend credit	405,948	564,324
Documentary and commercial letters of credit	240	2,331
<b>Total unfunded commitments to extend credit</b>	<b>406,188</b>	<b>566,655</b>
Allowance for credit losses	(245)	(274)

**Credit-Related Arrangements**

Standby letters of credit and letters of guarantee are issued at the request of a Bank customer in order to secure the customer's payment or performance obligations to a third party. These guarantees represent an irrevocable obligation of the Bank to pay the third party beneficiary upon presentation of the guarantee and satisfaction of the documentary requirements stipulated therein, without investigation as to the validity of the beneficiary's claim against the customer. Generally, the term of the standby letters of credit does not exceed one year, while the term of the letters of guarantee does not exceed four years. The types and amounts of collateral security held by the Bank for these standby letters of credit and letters of guarantee are generally represented by deposits with the Bank or a charge over assets held in mutual funds.

The Bank considers the fees collected in connection with the issuance of standby letters of credit and letters of guarantee to be representative of the fair value of its obligation undertaken in issuing the guarantee. In accordance with applicable accounting standards related to guarantees, the Bank defers fees collected in connection with the issuance of standby letters of credit and letters of guarantee. The fees are then recognized in income proportionately over the life of the credit agreements. The following table presents the outstanding financial guarantees. Collateral is shown at estimated market value less selling cost. Where the collateral is cash, it is shown gross including accrued income.

<b>Outstanding financial guarantees</b>	<b>September 30, 2023</b>			December 31, 2022		
	Gross	Collateral	Net	Gross	Collateral	Net
Standby letters of credit	242,792	235,642	7,150	250,543	243,393	7,150
Letters of guarantee	3,446	3,410	36	3,467	3,431	36
<b>Total</b>	<b>246,238</b>	<b>239,052</b>	<b>7,186</b>	<b>254,010</b>	<b>246,824</b>	<b>7,186</b>

**Repurchase agreements**

The Bank utilizes repurchase agreements and resell agreements (reverse repurchase agreements) to manage liquidity. The risks of these transactions include changes in the fair value of the securities posted or received as collateral and other credit related events. The Bank manages these risks by ensuring that the collateral involved is appropriate and by monitoring the value of the securities posted or received as collateral on a daily basis.

As at September 30, 2023, the Bank had 7 open positions (December 31, 2022: 2) in resell agreements with a remaining maturity of less than 30 days involving pools of mortgages issued by US federal agencies. The amortized cost of these resell agreements is \$154.1 million (December 31, 2022: \$59.9 million) and is included in securities purchased under agreements to resell on the consolidated balance sheets. As at September 30, 2023, there were no positions (December 31, 2022: no positions) which were offset on the consolidated balance sheets to arrive at the carrying value, and there was no collateral amount which was available to offset against the future settlement amount.

**Legal Proceedings**

There are actions and legal proceedings pending against the Bank and its subsidiaries which arose in the normal course of its business. Management, after reviewing all actions and proceedings pending against or involving the Bank and its subsidiaries, considers that the resolution of these matters would in the aggregate not be material to the consolidated financial position of the Bank, except as noted in the following paragraph.

As publicly announced, in November 2013, the US Attorney's Office for the Southern District of New York applied for and secured the issuance of so-called John Doe Summonses to six US financial institutions with which the Bank had correspondent bank relationships in connection with a US cross border tax investigation. On August 3, 2021, the Bank announced it had reached a resolution with the United States Department of Justice concerning this inquiry. The resolution is in the form of a non-prosecution agreement with a three-year term. The Bank paid \$5.6 million in respect of Forfeiture and Tax Restitution Amounts which is consistent with that previously provisioned for.

**Note 11: Leases**

The Bank enters into operating lease agreements either as the lessee or the lessor, mostly for office and parking spaces as well as for small office equipment. The terms of the existing leases, including renewal options that are reasonably certain to be exercised, extend up to the year 2035. Certain lease payments will be adjusted during the related lease's term based on movements in the relevant consumer price index.

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	Three months ended		Nine months ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
<b>Lease costs</b>				
Operating lease costs	1,920	1,800	5,717	5,777
Short-term lease costs	641	722	1,863	1,646
Sublease income	(284)	(279)	(842)	(926)
<b>Total net lease cost</b>	<b>2,277</b>	<b>2,243</b>	<b>6,738</b>	<b>6,497</b>
<b>Operating lease income</b>	<b>248</b>	<b>246</b>	<b>760</b>	<b>748</b>
<b>Other information for the period</b>				
Right-of-use assets related to new operating lease liabilities	—	—	—	138
Operating cash flows from operating leases	1,931	1,790	5,834	5,771
<b>Other information at end of period</b>				
			<b>September 30, 2023</b>	<b>December 31, 2022</b>
Operating leases right-of-use assets (included in other assets on the balance sheets)			30,898	33,641
Operating lease liabilities (included in other liabilities on the balance sheets)			30,138	32,965
Weighted average remaining lease term for operating leases (in years)			8.90	9.24
Weighted average discount rate for operating leases			5.40 %	5.40 %

The following table summarizes the maturity analysis of the Bank's commitments for long-term leases as at December 31, 2022:

Year ending December 31	Operating Leases
2023	7,129
2024	6,457
2025	4,133
2026	3,357
2027	3,152
2028 & thereafter	17,735
<b>Total commitments</b>	<b>41,963</b>
Less: effect of discounting cash flows to their present value	(8,998)
<b>Operating lease liabilities</b>	<b>32,965</b>

**Note 12: Segmented information**

The Bank is managed by the Chairman & Chief Executive Officer ("CEO") on a geographic basis. The Bank presents four reportable segments, three geographical and one other: Bermuda, Cayman, Channel Islands and the UK, and Other. The Other segment is composed of several operating segments that have been aggregated in accordance with GAAP. Each reportable segment has a managing director who reports to the Chairman & CEO. The Chairman and CEO and the segment managing director have final authority over resource allocation decisions and performance assessment.

The geographic segments reflect this management structure and the manner in which financial information is currently evaluated by the Chairman & CEO. Segment results are determined based on the Bank's management reporting system, which assigns balance sheet and income statement items to each of the geographic segments. The process is designed around the Bank's organizational and management structure and, accordingly, the results derived are not necessarily comparable with similar information published by other financial institutions. A description of each reportable segment and table of financial results is presented below.

Accounting policies of the reportable segments are the same as those described in Note 2 of the Bank's audited financial statements for the year ended December 31, 2022. Transactions between segments are accounted for on an accrual basis and are all eliminated upon consolidation. The Bank generally does not allocate assets, revenues and expenses among its business segments, with the exception of certain corporate overhead expenses and loan participation revenue and expenses. Loan participation revenue and expenses are allocated pro-rata based upon the percentage of the total loan funded by each jurisdiction participating in the loan.

The **Bermuda** segment provides a comprehensive range of retail, commercial and private banking services. Retail services are offered to individuals and small to medium-sized businesses through three branch locations and through internet banking, mobile banking, automated teller machines ("ATMs") and debit cards. Retail services include deposit services, consumer and mortgage lending, credit cards and personal insurance products. Commercial banking includes commercial lending and mortgages, cash management, payroll services, remote banking and letters of credit. Treasury services include money market and foreign exchange activities. Bermuda's wealth management offering consists of Butterfield Asset Management Limited, which provides investment management, advisory and brokerage services and Butterfield Trust (Bermuda) Limited, which provides trust, estate, company management and custody services. Bermuda is also the location of the Bank's head offices and accordingly, retains the unallocated corporate overhead expenses.

The **Cayman** segment provides a comprehensive range of retail, commercial and private banking services. Retail services are offered to individuals and small to medium-sized businesses through three branch locations and through internet banking, mobile banking, ATMs and debit cards. Retail services include deposit services, consumer and mortgage lending, credit cards and property/auto insurance. Commercial banking includes commercial lending and mortgages, cash management, payroll services, remote banking and letters of credit. Treasury services include money market and foreign exchange activities. Cayman's wealth management offering comprises investment management, advisory and brokerage services and Butterfield Trust (Cayman) Limited, which provides trust, estate and company management.

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The **Channel Islands and the UK** segment includes the jurisdictions of Guernsey and Jersey (Channel Islands), and the UK. In the Channel Islands, a broad range of services are provided to private clients and financial intermediaries including mortgage lending, private banking and treasury services, internet banking, wealth management and fiduciary services. The jurisdiction also offers mortgage lending to the retail market. The UK jurisdiction provides mortgage services for high-value residential properties.

The **Other** segment includes the jurisdictions of The Bahamas, Canada, Mauritius, Singapore and Switzerland. These operating segments individually and collectively do not meet the quantitative threshold for segmented reporting and are therefore aggregated as non-reportable operating segments.

<b>Total Assets by Segment</b>	<b>September 30, 2023</b>	December 31, 2022
Bermuda	5,235,391	5,405,365
Cayman	4,122,160	4,566,144
Channel Islands and the UK	3,931,432	4,626,183
Other	42,077	35,874
<b>Total assets before inter-segment eliminations</b>	<b>13,331,060</b>	<b>14,633,566</b>
Less: inter-segment eliminations	(151,534)	(327,504)
<b>Total</b>	<b>13,179,526</b>	<b>14,306,062</b>

Three months ended September 30, 2023	Net interest income		Provision for credit (losses) recoveries	Non-interest income	Net revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
	Customer	Inter- segment							
Bermuda	46,171	(1,210)	(572)	21,665	66,054	10	66,064	50,093	15,971
Cayman	30,901	1,784	(93)	15,426	48,018	(3)	48,015	17,439	30,576
Channel Islands and the UK	13,109	(574)	134	10,433	23,102	—	23,102	21,654	1,448
Other	11	—	—	9,323	9,334	(1)	9,333	8,582	751
<b>Total before eliminations</b>	<b>90,192</b>	<b>—</b>	<b>(531)</b>	<b>56,847</b>	<b>146,508</b>	<b>6</b>	<b>146,514</b>	<b>97,768</b>	<b>48,746</b>
Inter-segment eliminations	—	—	—	(4,857)	(4,857)	—	(4,857)	(4,857)	—
<b>Total</b>	<b>90,192</b>	<b>—</b>	<b>(531)</b>	<b>51,990</b>	<b>141,651</b>	<b>6</b>	<b>141,657</b>	<b>92,911</b>	<b>48,746</b>

Three months ended September 30, 2022	Net interest income		Provision for credit (losses) recoveries	Non-interest income	Net revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
	Customer	Inter- segment							
Bermuda	43,313	(720)	(290)	22,210	64,513	16	64,529	47,162	17,367
Cayman	31,309	652	(468)	15,319	46,812	—	46,812	15,429	31,383
Channel Islands and the UK	16,523	68	(35)	9,690	26,246	55	26,301	17,812	8,489
Other	8	—	—	7,120	7,128	—	7,128	6,936	192
<b>Total before eliminations</b>	<b>91,153</b>	<b>—</b>	<b>(793)</b>	<b>54,339</b>	<b>144,699</b>	<b>71</b>	<b>144,770</b>	<b>87,339</b>	<b>57,431</b>
Inter-segment eliminations	—	—	—	(4,419)	(4,419)	—	(4,419)	(4,419)	—
<b>Total</b>	<b>91,153</b>	<b>—</b>	<b>(793)</b>	<b>49,920</b>	<b>140,280</b>	<b>71</b>	<b>140,351</b>	<b>82,920</b>	<b>57,431</b>

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Nine months ended September 30, 2023	Net interest income		Provision for credit (losses) recoveries	Non-interest income	Net revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
	Customer	Inter- segment							
Bermuda	140,018	(3,091)	(3,074)	64,904	198,757	4,089	202,846	144,278	58,568
Cayman	98,763	4,595	113	47,721	151,192	(4)	151,188	48,347	102,841
Channel Islands and the UK	41,209	(1,504)	232	28,427	68,364	(2)	68,362	59,646	8,716
Other	32	—	—	25,534	25,566	(1)	25,565	23,740	1,825
<b>Total before eliminations</b>	<b>280,022</b>	<b>—</b>	<b>(2,729)</b>	<b>166,586</b>	<b>443,879</b>	<b>4,082</b>	<b>447,961</b>	<b>276,011</b>	<b>171,950</b>
Inter-segment eliminations	—	—	—	(14,261)	(14,261)	—	(14,261)	(14,261)	—
<b>Total</b>	<b>280,022</b>	<b>—</b>	<b>(2,729)</b>	<b>152,325</b>	<b>429,618</b>	<b>4,082</b>	<b>433,700</b>	<b>261,750</b>	<b>171,950</b>

Nine months ended September 30, 2022	Net interest income		Provision for credit (losses) recoveries	Non-interest income	Net revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
	Customer	Inter- segment							
Bermuda	118,618	(1,958)	602	64,526	181,788	40	181,828	141,036	40,792
Cayman	79,824	1,431	(1,161)	47,734	127,828	—	127,828	45,706	82,122
Channel Islands and the UK	50,535	526	(224)	30,957	81,794	912	82,706	55,618	27,088
Other	12	1	—	21,456	21,469	—	21,469	20,560	909
<b>Total before eliminations</b>	<b>248,989</b>	<b>—</b>	<b>(783)</b>	<b>164,673</b>	<b>412,879</b>	<b>952</b>	<b>413,831</b>	<b>262,920</b>	<b>150,911</b>
Inter-segment eliminations	—	—	—	(13,022)	(13,022)	—	(13,022)	(13,022)	—
<b>Total</b>	<b>248,989</b>	<b>—</b>	<b>(783)</b>	<b>151,651</b>	<b>399,857</b>	<b>952</b>	<b>400,809</b>	<b>249,898</b>	<b>150,911</b>

#### Note 13: Derivative instruments and risk management

The Bank uses derivatives for risk management purposes and to meet the needs of its customers. The Bank's derivative contracts principally involve over-the-counter ("OTC") transactions that are negotiated privately between the Bank and the counterparty to the contract and include interest rate contracts and foreign exchange contracts.

The Bank may pursue opportunities to reduce its exposure to credit losses on derivatives by entering into International Swaps and Derivatives Association master agreements ("ISDAs"). Depending on the nature of the derivative transaction, bilateral collateral arrangements may be used as well. When the Bank is engaged in more than one outstanding derivative transaction with the same counterparty, and also has a legally enforceable master netting agreement with that counterparty, the net marked-to-market exposure represents the netting of the positive and negative exposures with that counterparty. When there is a net negative exposure, the Bank regards its credit exposure to the counterparty as being zero. The net marked-to-market position with a particular counterparty represents a reasonable measure of credit risk when there is a legally enforceable master netting agreement between the Bank and that counterparty.

Certain of these agreements contain credit risk-related contingent features in which the counterparty has the option to accelerate cash settlement of the Bank's net derivative liabilities with the counterparty in the event the Bank's credit rating falls below specified levels or the liabilities reach certain levels.

All derivative financial instruments, whether designated as hedges or not, are recorded on the consolidated balance sheets at fair value within other assets or other liabilities. These amounts include the effect of netting. The accounting for changes in the fair value of a derivative in the consolidated statements of operations depends on whether the contract has been designated as a hedge and qualifies for hedge accounting.

#### Notional Amounts

The notional amounts are not recorded as assets or liabilities on the consolidated balance sheets as they represent the face amount of the contract to which a rate or price is applied to determine the amount of cash flows to be exchanged. Notional amounts represent the volume of outstanding transactions and do not represent the potential gain or loss associated with market risk or credit risk of such instruments. Credit risk is limited to the positive fair value of the derivative instrument, which is significantly less than the notional amount.

#### Fair Value

Derivative instruments, in the absence of any compensating up-front cash payments, generally have no market value at inception. They obtain value, positive or negative, as relevant interest rates, exchange rates, equity or commodity prices or indices change. The potential for derivatives to increase or decrease in value as a result of the foregoing factors is generally referred to as market risk. Market risk is managed within clearly defined parameters as prescribed by senior management of the Bank. The fair value is defined as the profit or loss associated with replacing the derivative contracts at prevailing market prices.

#### Risk Management Derivatives

The Bank enters into interest derivative contracts as part of its overall interest rate risk management strategy to minimize significant unplanned fluctuations in earnings that are caused by interest rate volatility. The Bank's goal is to manage interest rate sensitivity by modifying the repricing or maturity characteristics of certain consolidated balance sheet assets and liabilities so that movements in interest rates do not adversely affect the net interest margin. Derivative instruments that are used as part of the Bank's risk management strategy include interest rate swap contracts that have indices related to the pricing of specific consolidated balance sheet assets and liabilities. Interest rate swaps generally involve the exchange of fixed and variable-rate interest payments between two parties, based on a common notional principal amount and maturity date. The Bank uses foreign currency derivative instruments to hedge its exposure to foreign currency risk. Certain hedging relationships are formally designated and qualify for hedge accounting as fair value or net investment hedges. Risk management derivatives comprise fair value hedges, net investment hedges and derivatives not formally designated as hedges as described below.

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**Fair value hedges** include designated currency swaps that are used to minimize the Bank's exposure to variability in the amortized cost of AFS investments due to movements in foreign exchange rates. The foreign exchange movement on the unrealized gain or loss on the AFS investments is not considered to be part of the hedging relationship and continues to be recognized in AOCIL. The effective portion of changes in the amortized cost of the hedged items attributable to foreign exchange rates is recognized in current year earnings consistent with the related change in fair value of the hedging instrument. For fair value hedges, hedging effectiveness of the hedged item and the hedging instrument are assessed and managed at inception and on an ongoing basis using a partial-term method.

**Net investment hedges** include designated currency swaps and qualifying non-derivative instruments and are used to minimize the Bank's exposure to variability in the foreign currency translation of net investments in foreign operations. The effective portion of changes in the fair value of the hedging instrument is recognized in AOCIL consistent with the related translation gains and losses of the hedged net investment. For net investment hedges, all critical terms of the hedged item and the hedging instrument are matched at inception and on an ongoing basis to minimize the risk of hedge ineffectiveness.

For derivatives designated as net investment hedges, the Bank follows the method based on changes in spot exchange rates. Accordingly:

- The change in the fair value of the derivative instrument that is reported in AOCIL (i.e., the effective portion) is determined by the changes in spot exchange rates.
- The change in the fair value of the derivative instrument attributable to changes in the difference between the forward rate and spot rate are excluded from the measure of the hedge ineffectiveness and that difference is reported directly in the consolidated statements of operations under foreign exchange revenue.

Amounts recorded in AOCIL are reclassified to earnings only upon the sale or substantial liquidation of an investment in a foreign subsidiary.

For foreign-currency-denominated debt instruments that are designated as hedges of net investments in foreign operations, the translation gain or loss that is recorded in AOCIL is based on the spot exchange rate between the reporting currency of the Bank and the functional currency of the respective subsidiary. See Note 20: Accumulated other comprehensive income (loss) for details on the amount recognized into AOCIL during the current period from translation gain or loss.

**Derivatives not formally designated as hedges** are entered into to manage the foreign exchange risk of the Bank's exposure. Changes in the fair value of derivative instruments not formally designated as hedges are recognized in foreign exchange revenue.

**Client service derivatives**

The Bank enters into foreign exchange contracts primarily to meet the foreign exchange needs of its customers. Foreign exchange contracts are agreements to exchange specific amounts of currencies at a future date at a specified rate of exchange. Changes in the fair value of client services derivative instruments are recognized in foreign exchange revenue.

The following table shows the aggregate notional amounts of derivative contracts outstanding listed by type and respective gross positive or negative fair values and classified by those used for risk management (sub-classified as hedging and those that do not qualify for hedge accounting), client services and credit derivatives. The fair value of derivatives is recorded in the consolidated balance sheets in other assets and other liabilities. Gross positive fair values are recorded in other assets and gross negative fair values are recorded in other liabilities, subject to netting when master netting agreements are in place.

September 30, 2023	Derivative instrument	Number of contracts	Notional amounts	Gross positive fair value	Gross negative fair value	Net fair value
<b>Risk management derivatives</b>						
	Net investment hedges	2	44,477	776	—	776
	Fair value hedges	3	153,205	286	(3,285)	(2,999)
	Derivatives not formally designated as hedging instruments	62	1,205,785	12,808	(2,517)	10,291
	<b>Subtotal risk management derivatives</b>		<b>1,403,467</b>	<b>13,870</b>	<b>(5,802)</b>	<b>8,068</b>
	<b>Client services derivatives</b>	141	364,078	2,361	(2,160)	201
	<b>Total derivative instruments</b>		<b>1,767,545</b>	<b>16,231</b>	<b>(7,962)</b>	<b>8,269</b>
<hr/>						
December 31, 2022	Derivative instrument	Number of contracts	Notional amounts	Gross positive fair value	Gross negative fair value	Net fair value
<b>Risk management derivatives</b>						
	Net investment hedges	1	5,207	—	(215)	(215)
	Fair value hedges	4	130,751	2,714	(191)	2,523
	Derivatives not formally designated as hedging instruments	63	1,884,169	8,052	(10,269)	(2,217)
	<b>Subtotal risk management derivatives</b>		<b>2,020,127</b>	<b>10,766</b>	<b>(10,675)</b>	<b>91</b>
	<b>Client services derivatives</b>	160	312,772	2,401	(2,237)	164
	<b>Total derivative instruments</b>		<b>2,332,899</b>	<b>13,167</b>	<b>(12,912)</b>	<b>255</b>

In addition to the above, as at September 30, 2023 foreign denominated deposits of £255.9 million (December 31, 2022: £235.5 million) and CHF 0.4 million (December 31, 2022: CHF 0.4 million) were designated as a hedge of foreign exchange risk associated with the net investment in foreign operations.

We manage derivative exposure by monitoring the credit risk associated with each counterparty using counterparty specific credit risk limits, using master netting arrangements where appropriate and obtaining collateral. The Bank elected to offset in the consolidated balance sheets certain gross derivative assets and liabilities subject to netting agreements.

The Bank also elected not to offset certain derivative assets or liabilities and all collateral received or paid that the Bank or the counterparties could legally offset in the event of default. In the tables below, these positions are deducted from the net fair value presented in the consolidated balance sheets in order to present the net exposures. The

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collateral values presented in the following table are limited to the related net derivative asset or liability balance and, accordingly, do not include excess collateral received or paid.

September 30, 2023	Gross fair value recognized	Less: offset applied under master netting agreements	Net fair value presented in the consolidated balance sheets	Less: positions not offset in the consolidated balance sheets		Net exposures
				Gross fair value of derivatives	Cash collateral received / paid	
<b>Derivative assets</b>						
Spot and forward foreign exchange and currency swaps	16,231	(4,884)	11,347	—	—	11,347
<b>Derivative liabilities</b>						
Spot and forward foreign exchange and currency swaps	7,962	(4,884)	3,078	—	(2)	3,076
<b>Net positive fair value</b>			<b>8,269</b>			

December 31, 2022	Gross fair value recognized	Less: offset applied under master netting agreements	Net fair value presented in the consolidated balance sheets	Less: positions not offset in the consolidated balance sheets		Net exposures
				Gross fair value of derivatives	Cash collateral received / paid	
<b>Derivative assets</b>						
Spot and forward foreign exchange and currency swaps	13,167	(6,658)	6,509	—	(9)	6,500
<b>Derivative liabilities</b>						
Spot and forward foreign exchange and currency swaps	12,912	(6,658)	6,254	—	(352)	5,902
<b>Net positive fair value</b>			<b>255</b>			

The following tables show the location and amount of gains (losses) recorded in either the consolidated statements of operations or consolidated statements of comprehensive income on derivative instruments outstanding.

Derivative instrument	Consolidated statements of operations line item	Three months ended		Nine months ended	
		September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Spot and forward foreign exchange	Foreign exchange revenue	—	725	38	741
Currency swaps, not designated as hedge	Foreign exchange revenue	20,943	27,989	12,508	34,262
Currency swaps - fair value hedges	Foreign exchange revenue	(6,489)	(3,376)	(5,523)	(7,462)
Total net gains (losses) recognized in net income		14,454	25,338	7,023	27,541

Derivative instrument	Consolidated statements of comprehensive income line item	Three months ended		Nine months ended	
		September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Currency swaps - net investment hedge	Unrealized net gains (losses) on translation of net investment in foreign operations	(1,307)	79	991	(768)
Total net gains (losses) recognized in comprehensive income		(1,307)	79	991	(768)

**Note 14: Fair value measurements**

The following table presents the financial assets and liabilities that are measured at fair value on a recurring basis. Management classifies these items based on the type of inputs used in their respective fair value determination as described in Note 2 of the Bank's audited financial statements for the year ended December 31, 2022.

Management reviews the price of each security monthly, comparing market values to expectations and to the prior month's price. Management's expectations are based upon knowledge of prevailing market conditions and developments relating to specific issuers and/or asset classes held in the investment portfolio. Where there are unusual or significant price movements, or where a certain asset class has performed out-of-line with expectations, the matter is reviewed by management.

Financial instruments in Level 1 include US and UK Government Treasury notes.

Financial instruments in Level 2 include government debt securities, mortgage-backed securities and other asset-backed securities, forward foreign exchange contracts and mutual funds not actively traded.

Financial instruments in Level 3 included asset-backed securities for which the market was relatively illiquid and for which information about actual trading prices was not readily available.

There were no transfers between Level 1 and Level 2 or Level 2 and Level 3 during the nine months ended September 30, 2023. During the year ended December 31, 2022, there were no transfers between Level 1 and Level 2. There was a transfer out of Level 3 into Level 2 due to increased price observability during the year ended December 31, 2022.



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	September 30, 2023				December 31, 2022			
	Fair value			Total carrying amount / fair value	Fair value			Total carrying amount / fair value
	Level 1	Level 2	Level 3		Level 1	Level 2	Level 3	
<b>Items that are recognized at fair value on a recurring basis:</b>								
<b>Financial assets</b>								
<b>Equity securities</b>								
Mutual funds	—	—	—	—	—	236	—	236
<b>Total equity securities</b>	—	—	—	—	—	236	—	236
<b>Available-for-sale investments</b>								
US government and federal agencies	696,979	824,810	—	1,521,789	838,938	873,838	—	1,712,776
Non-US governments debt securities	236,372	22,392	—	258,764	229,071	22,392	—	251,463
Asset-backed securities - Student loans	—	40	—	40	—	5,626	—	5,626
Residential mortgage-backed securities	—	17,347	—	17,347	—	19,000	—	19,000
<b>Total available-for-sale</b>	<b>933,351</b>	<b>864,589</b>	<b>—</b>	<b>1,797,940</b>	<b>1,068,009</b>	<b>920,856</b>	<b>—</b>	<b>1,988,865</b>
Other assets - Derivatives	—	11,347	—	11,347	—	6,509	—	6,509
<b>Financial liabilities</b>								
Other liabilities - Derivatives	—	3,078	—	3,078	—	6,254	—	6,254

**Level 3 Reconciliation**

The Level 3 financial instrument, was a federal family education loan program guaranteed student loan security and was valued using a non-binding quote from an external security pricing service. During the year ended December 31, 2022, this instrument was transferred to Level 2 due to increased price observability.

The table below summarizes realized and unrealized gains and losses for Level 3 assets at the reporting date.

	Nine months ended September 30, 2023	Year ended December 31, 2022
	Available- for-sale investments	Available- for-sale investments
Carrying amount at beginning of period	—	13,174
Proceeds from sales, paydowns and maturities	—	(7,631)
Change in unrealized gains (losses) recognized in other comprehensive income	—	102
Realized and unrealized gains recognized in net income	—	(19)
Transfers in (out of) Level 3 out of (into) Level 2 - AFS	—	(5,626)
<b>Carrying amount at end of period</b>	<b>—</b>	<b>—</b>
<b>Cumulative gain (loss) recognized in other comprehensive income</b>	<b>—</b>	<b>(14)</b>

**Items Other Than Those Recognized at Fair Value on a Recurring Basis:**

	Level	September 30, 2023			December 31, 2022		
		Carrying amount	Fair value	Appreciation / (depreciation)	Carrying amount	Fair value	Appreciation / (depreciation)
<b>Financial assets</b>							
Cash and cash equivalents	Level 1	1,749,778	1,749,778	—	2,100,787	2,100,787	—
Securities purchased under agreements to resell	Level 2	154,113	154,113	—	59,871	59,871	—
Short-term investments	Level 1	738,810	738,810	—	884,478	884,478	—
Investments held-to-maturity	Level 2	3,520,650	2,829,583	(691,067)	3,738,080	3,197,508	(540,572)
Loans, net of allowance for credit losses	Level 2	4,749,769	4,636,367	(113,402)	5,096,430	5,049,570	(46,860)
Other real estate owned <sup>1</sup>	Level 2	815	815	—	800	800	—
<b>Financial liabilities</b>							
Term deposits	Level 2	3,569,786	3,573,637	(3,851)	3,107,248	3,108,511	(1,263)
Long-term debt	Level 2	98,431	94,201	4,230	172,289	177,919	(5,630)

<sup>1</sup>The current carrying value of OREO is adjusted to fair value only when there is devaluation below carrying value.



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**Note 15: Interest rate risk**

The following tables set out the assets, liabilities and shareholders' equity on the date of the earlier of contractual maturity, expected maturity or repricing date. Use of these tables to derive information about the Bank's interest rate risk position is limited by the fact that customers may choose to terminate their financial instruments at a date earlier than the contractual maturity or repricing date. Examples of this include fixed-rate mortgages, which are shown at contractual maturity but which may pre-pay earlier, and certain term deposits, which are shown at contractual maturity but which may be withdrawn before their contractual maturity subject to prepayment penalties. Investments are shown based on remaining contractual maturities. The remaining contractual principal maturities for mortgage-backed securities (primarily US government agencies) do not consider prepayments. Remaining expected maturities will differ from contractual maturities because borrowers may have the right to prepay obligations before the underlying mortgages mature.

September 30, 2023	Earlier of contractual maturity or repricing date							
(in \$ millions)	Within 3 months	3 to 6 months	6 to 12 months	1 to 5 years	After 5 years	Non-interest bearing funds	Total	
<b>Assets</b>								
Cash and cash equivalents	1,653	—	—	—	—	97	1,750	
Securities purchased under agreement to resell	154	—	—	—	—	—	154	
Short-term investments	395	302	42	—	—	—	739	
Investments	24	153	214	746	4,182	—	5,319	
Loans	2,424	71	280	1,607	341	27	4,750	
Other assets	—	—	—	—	—	468	468	
<b>Total assets</b>	<b>4,650</b>	<b>526</b>	<b>536</b>	<b>2,353</b>	<b>4,523</b>	<b>592</b>	<b>13,180</b>	
<b>Liabilities and shareholders' equity</b>								
Shareholders' equity	—	—	—	—	—	923	923	
Demand deposits	5,722	—	—	—	—	2,569	8,291	
Term deposits	2,454	608	417	92	—	—	3,571	
Other liabilities	—	—	—	—	—	297	297	
Long-term debt	—	—	—	98	—	—	98	
<b>Total liabilities and shareholders' equity</b>	<b>8,176</b>	<b>608</b>	<b>417</b>	<b>190</b>	<b>—</b>	<b>3,789</b>	<b>13,180</b>	
Interest rate sensitivity gap	(3,526)	(82)	119	2,163	4,523	(3,197)	—	
Cumulative interest rate sensitivity gap	(3,526)	(3,608)	(3,489)	(1,326)	3,197	—	—	

December 31, 2022	Earlier of contractual maturity or repricing date							
(in \$ millions)	Within 3 months	3 to 6 months	6 to 12 months	1 to 5 years	After 5 years	Non-interest bearing funds	Total	
<b>Assets</b>								
Cash and cash equivalents	2,008	—	—	—	—	93	2,101	
Securities purchased under agreement to resell	60	—	—	—	—	—	60	
Short-term investments	406	422	56	—	—	—	884	
Investments	6	8	179	943	4,592	—	5,728	
Loans	2,927	35	166	1,533	406	29	5,096	
Other assets	—	—	—	—	—	437	437	
<b>Total assets</b>	<b>5,407</b>	<b>465</b>	<b>401</b>	<b>2,476</b>	<b>4,998</b>	<b>559</b>	<b>14,306</b>	
<b>Liabilities and shareholders' equity</b>								
Shareholders' equity	—	—	—	—	—	865	865	
Demand deposits	6,819	25	—	—	—	3,040	9,884	
Term deposits	2,126	457	437	87	—	—	3,107	
Other liabilities	—	—	—	—	—	278	278	
Long-term debt	—	75	—	97	—	—	172	
<b>Total liabilities and shareholders' equity</b>	<b>8,945</b>	<b>557</b>	<b>437</b>	<b>184</b>	<b>—</b>	<b>4,183</b>	<b>14,306</b>	
Interest rate sensitivity gap	(3,538)	(92)	(36)	2,292	4,998	(3,624)	—	
Cumulative interest rate sensitivity gap	(3,538)	(3,630)	(3,666)	(1,374)	3,624	—	—	

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**Note 16: Long-term debt**

On May 24, 2018, the Bank issued US \$75 million of Subordinated Lower Tier II capital notes. The notes were issued at par and due on June 1, 2028. The issuance was by way of a registered offering with US institutional investors. The notes are listed on the BSX in the specialist debt securities category. The proceeds of the issue were used, among others, to repay the entire amount of the US \$47 million outstanding subordinated notes series 2003-B. The notes issued pay a fixed coupon of 5.25% until June 1, 2023 when it became redeemable in whole at the option of the Bank. The notes were priced at a spread of 2.27% over the 10-year US Treasury yield. The Bank incurred \$1.8 million of costs directly related to the issuance of these capital notes. These costs have been capitalized directly against the carrying value of these notes on the balance sheet and amortized over the life of the notes. These notes were redeemed at face value in June 2023.

On June 11, 2020, the Bank issued US \$100 million of Subordinated Lower Tier II capital notes. The notes were issued at par and due on June 15, 2030. The issuance was by way of a registered offering with US institutional investors. The notes are listed on the BSX in the specialist debt securities category. The proceeds of the issue were used, among others, to repay the entire amount of the US \$45 million outstanding subordinated notes series 2005-B which matured on July 2, 2020. The notes issued pay a fixed coupon of 5.25% until June 15, 2025 when they become redeemable in whole at the option of the Bank. The notes were priced at a spread of 4.43% over the 10-year US Treasury yield. The Bank incurred \$2.3 million of costs directly related to the issuance of these capital notes. These costs have been capitalized directly against the carrying value of these notes on the balance sheet, and will be amortized over the life of the notes.

No interest was capitalized during the nine months ended September 30, 2023 and the year ended December 31, 2022.

In the event the Bank would be in a position to redeem long-term debt, priority would go to the redemption of the higher interest-bearing Series, subject to availability relative to the earliest date the Series is redeemable at the Bank's option.

The following table presents the contractual maturity and interest payments for long-term debt issued by the Bank as at September 30, 2023. The interest payments are calculated until contractual maturity using the current Secured Overnight Financing Rate ("SOFR").

Long-term debt	Earliest date redeemable at the Bank's option	Contractual maturity date	Interest rate until date redeemable	Interest rate from earliest date redeemable to contractual maturity	Principal Outstanding	Interest payments until contractual maturity			
						Within 1 year	1 to 5 years	After 5 years	
<b>Bermuda</b>									
2020 issuance	June 15, 2025	June 15, 2030	5.25 %	3 months US\$ SOFR + 5.060%	100,000	5,250	39,471	18,378	
Unamortized debt issuance costs					(1,569)				
<b>Long-term debt less unamortized debt issuance costs</b>					<b>98,431</b>				

**Note 17: Earnings per share**

Earnings per share have been calculated using the weighted average number of common shares outstanding during the period after deduction of the shares held as treasury stock. The dilutive effect of share-based compensation plans was calculated using the treasury stock method, whereby the proceeds received from the exercise of share-based awards are assumed to be used to repurchase outstanding shares, using the average market price of the Bank's shares for the period. Numbers of shares are expressed in thousands.

During the nine months ended September 30, 2023, the average number of outstanding awards of unvested common shares was 1.4 million (September 30, 2022: 1.0 million). Only awards for which the sum of 1) the expense that will be recognized in the future (i.e., the unrecognized expense) and 2) its exercise price, if any, was lower than the average market price of the Bank's common shares were considered dilutive and, therefore, included in the computation of diluted earnings per share. An award's unrecognized expense is also considered to be the proceeds the employees would need to pay to purchase accelerated vesting of the awards. For the purposes of calculating dilution, such proceeds are assumed to be used by the Bank to buy back common shares at the average market price. The weighted-average number of outstanding awards, net of the assumed weighted-average number of common shares bought back, is included in the number of diluted participating shares.

	Three months ended		Nine months ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Net income	48,746	57,431	171,950	150,911
<b>Basic Earnings Per Share</b>				
Weighted average number of common shares issued	49,232	50,252	49,884	50,197
Weighted average number of common shares held as treasury stock	(619)	(619)	(619)	(619)
<b>Weighted average number of common shares (in thousands)</b>	<b>48,613</b>	<b>49,633</b>	<b>49,265</b>	<b>49,578</b>
<b>Basic Earnings Per Share</b>	<b>1.00</b>	<b>1.16</b>	<b>3.49</b>	<b>3.04</b>
<b>Diluted Earnings Per Share</b>				
Weighted average number of common shares	48,613	49,633	49,265	49,578
Net dilution impact related to awards of unvested common shares	527	214	423	245
<b>Weighted average number of diluted common shares (in thousands)</b>	<b>49,140</b>	<b>49,847</b>	<b>49,688</b>	<b>49,823</b>
<b>Diluted Earnings Per Share</b>	<b>0.99</b>	<b>1.15</b>	<b>3.46</b>	<b>3.03</b>

#### **Note 18: Share-based payments**

The common shares transferred to employees under all share-based payments are either taken from the Bank's common treasury shares or from newly issued shares. All share-based payments are settled by the ultimate parent company which, pursuant to Bermuda law, is not taxed on income. There are no income tax benefits in relation to the issue of such shares as a form of compensation.

In conjunction with the 2010 capital raise, the Board of Directors approved the 2010 Omnibus Plan (the "2010 Plan"). Under the 2010 Plan, 5% of the Bank's fully diluted common shares, equal to approximately 2.95 million shares, were initially available for grant to certain officers in the form of stock options or unvested share awards. Both types of awards are detailed below. In 2012 and 2016, the Board of Directors approved an increase to the equivalent number of shares allowed to be granted under the 2010 Plan to 5.0 million and 7.5 million shares, respectively.

In May 2020, the Board of Directors approved the 2020 Omnibus Plan (the "2020 Plan") which replaces the 2010 Plan. Under the 2020 Plan, 3.0 million shares are initially available for grant to employees in the form of stock options or unvested share awards. Both types of awards are detailed below.

#### **Stock Option Awards**

##### **2010 and 2020 Plans**

Under the 2010 and 2020 Plans, options are awarded to Bank employees and executive management, based on predetermined vesting conditions that entitle the holder to purchase one common share at a subscription price usually equal to the price of the most recently traded common share when granted and have a term of 10 years. The subscription price is reduced for all special dividends declared by the Bank. Stock option awards granted under the 2010 and 2020 Plans vest based on two specific types of vesting conditions i.e., time and performance conditions, as detailed below:

##### **Time vesting condition**

50% of each option award was granted in the form of time vested options and vested 25% on each of the second, third, fourth and fifth anniversaries of the effective grant date.

In addition to the time vesting conditions noted above, the options will generally vest immediately:

- by reason of the employee's death or disability,
- upon termination, by the Bank, of the holder's employment, unless if in relation with the holder's misconduct, or
- in limited circumstances and specifically approved by the Board, as stipulated in the holder's employment contract.

In the event of the employee's resignation, any unvested portion of the awards shall generally be forfeited and any vested portion of the options shall generally remain exercisable during the 90-day period following the termination date or, if earlier, until the expiration date, and any vested portion of the options not exercised as of the expiration of such period shall be forfeited without any consideration therefore.

##### **Performance vesting condition**

50% of each option award was granted in the form of performance options and would vest (partially or fully) on a "valuation event" date (the date that any of the March 2, 2010 new investors transfers at least 5% of the total number of common shares or the date that there is a change in control and any of the new investors realize a predetermined multiple of invested capital ("MOIC")). On September 21, 2016, it was determined that a valuation event occurred during which a new investor realized a MOIC of more than 200% of the original invested capital of \$12.09 per share and accordingly, all outstanding unvested performance options vested.

#### **Changes in Outstanding Stock Option Plans**

There were no stock options outstanding as at September 30, 2023 and December 31, 2022.

#### **Share Based Plans**

Recipients of unvested share awards are entitled to the related common shares at no cost, at the time the award vests. Recipients of unvested shares may be entitled to receive additional unvested shares having a value equal to the cash dividends that would have been paid had the unvested shares been issued and vested. Such additional unvested shares granted as dividend equivalents are subject to the same vesting schedule and conditions as the underlying unvested shares.

Unvested shares subject only to the time vesting condition generally vest upon retirement, death, disability or upon termination, by the Bank, of the holder's employment unless if in connection with the holder's misconduct. Unvested shares subject to both time vesting and performance vesting conditions remain outstanding and unvested upon retirement and will vest only if the performance conditions are met. Unvested shares can also vest in limited circumstances and if specifically approved by the Board, as stipulated in the holder's employment contract. In all other circumstances, unvested shares are generally forfeited when employment ends.

The grant date weighted average fair value of unvested share awards granted in the nine months ended September 30, 2023 was \$32.94 per share (December 31, 2022: \$35.05 per share). The Bank expects to settle these awards by issuing new shares.

#### **Employee Deferred Incentive Program ("EDIP")**

Under the Bank's EDIP, shares are awarded to Bank employees and executive management based on the time vesting condition, which states that the shares will vest equally over a three-year period from the effective grant date.

#### **Executive Long-Term Incentive Share Program ("ELTIP")**

Under the Bank's ELTIP, performance shares as well as time-vested shares were awarded to executive management. The performance shares will generally vest upon the achievement of certain performance targets in the three-year period from the effective grant date. The time-vested shares will generally vest over the three-year period from the effective grant date.

#### **Employee Share Purchase Plan ("ESPP")**

The Bank's ESPP was approved in July 2021 and registered in November 2021. The first offering period started in March 2022. Under the Bank's ESPP, eligible employees may elect to contribute up to 15% of their regular compensation toward the purchase of the Bank's shares at a 10% discount from market price on the closing date of each offering period. The ESPP specifies two consecutive six month offering periods per year. In the case of termination of employment or voluntary partial or full withdrawal from the plan, the related current offering period ESPP contributions are refunded to the employee and thus cannot be used to purchase shares under the ESPP. During the nine months ended September 30, 2023, 12,523 shares (December 31, 2022: 10,143) were issued under the ESPP Plan.

**The Bank of N.T. Butterfield & Son Limited**  
**Notes to the Consolidated Financial Statements (unaudited) (continued)**  
*(In thousands of US dollars, unless otherwise stated)*

**Changes in Outstanding ELTIP and EDIP awards (in thousands of shares transferable upon vesting)**

	Nine months ended			
	September 30, 2023		September 30, 2022	
	EDIP	ELTIP	EDIP	ELTIP
Outstanding at beginning of period	621	705	297	704
Granted	189	376	478	270
Vested (fair value in 2023: \$10.8 million, 2022: \$17.0 million)	(141)	(185)	(153)	(278)
<b>Outstanding at end of period</b>	<b>669</b>	<b>896</b>	<b>622</b>	<b>696</b>

**Share-based Compensation Cost Recognized in Net Income**

	Nine months ended	
	September 30, 2023	September 30, 2022
	EDIP and ELTIP	EDIP and ELTIP
Cost recognized in net income	14,323	11,420

**Unrecognized Share-based Compensation Cost**

	September 30, 2023		December 31, 2022	
	Unrecognized cost	Weighted average years over which it is expected to be recognized	Unrecognized cost	Weighted average years over which it is expected to be recognized
<b>EDIP</b>	12,949	2.86	14,234	3.35
<b>ELTIP</b>				
Performance vesting shares	14,802	1.92	10,232	1.75
<b>Total unrecognized expense</b>	<b>27,751</b>		<b>24,466</b>	

**Note 19: Share repurchase programs**

From time to time, the Bank may seek to repurchase and retire equity securities of the Bank, through cash purchases, privately negotiated transactions, or otherwise. Such transactions, if any, depend on prevailing market conditions, liquidity and capital requirements, contractual restrictions, and other factors.

**Common Share Repurchase Program**

On December 2, 2019, the Board approved a common share repurchase program, authorizing the purchase of up to 3.5 million common shares through to February 28, 2021. The program came into effect on December 20, 2019 following the completion of the previous program.

On February 10, 2021, the Board approved a common share repurchase program, authorizing the purchase of up to 2.0 million common shares through to February 28, 2022.

On February 14, 2022, the Board approved a common share repurchase program, authorizing the purchase of up to 2.0 million common shares through to February 28, 2023.

On February 13, 2023, the Board approved a new common share repurchase program, authorizing the purchase of up to 3.0 million common shares through to February 29, 2024.

In the nine months ended September 30, 2023, the Bank repurchased and retired 1,943,126 shares.

	Nine months ended	Year ended December 31	
	September 30, 2023	2022	2021
<b>Common share repurchases</b>			
Acquired number of shares (to the nearest 1)	1,943,126	102,000	534,828
Average cost per common share	28.32	38.21	36.93
<b>Total cost (in US dollars)</b>	<b>55,022,758</b>	<b>3,897,268</b>	<b>19,753,336</b>

**The Bank of N.T. Butterfield & Son Limited**  
**Notes to the Consolidated Financial Statements (unaudited) (continued)**  
*(In thousands of US dollars, unless otherwise stated)*

**Note 20: Accumulated other comprehensive income (loss)**

Nine months ended September 30, 2023	Unrealized net gains (losses) on translation of net investment in foreign operations	Unrealized net gains (losses) on HTM investments	Unrealized net gains (losses) on AFS investments	Employee benefit plans adjustments			Total AOCIL
				Pension	Post- retirement healthcare	Subtotal - employee benefits plans	
<b>Balance at beginning of period</b>	(25,700)	(91,212)	(220,345)	(47,905)	7,710	(40,195)	(377,452)
Other comprehensive income (loss), net of taxes	(348)	7,282	(16,694)	1,732	(607)	1,125	(8,635)
<b>Balance at end of period</b>	<b>(26,048)</b>	<b>(83,930)</b>	<b>(237,039)</b>	<b>(46,173)</b>	<b>7,103</b>	<b>(39,070)</b>	<b>(386,087)</b>

Nine months ended September 30, 2022	Unrealized net gains (losses) on translation of net investment in foreign operations	Unrealized net gains (losses) on HTM investments	Unrealized net gains (losses) on AFS investments	Employee benefit plans adjustments			Total AOCIL
				Pension	Post- retirement healthcare	Subtotal - employee benefits plans	
<b>Balance at beginning of period</b>	(20,913)	91	(21,982)	(56,400)	(25,713)	(82,113)	(124,917)
Transfer of AFS investments to HTM investments	—	(99,143)	99,143	—	—	—	—
Other comprehensive income (loss), net of taxes	(8,388)	5,283	(317,344)	2,906	1,476	4,382	(316,067)
<b>Balance at end of period</b>	<b>(29,301)</b>	<b>(93,769)</b>	<b>(240,183)</b>	<b>(53,494)</b>	<b>(24,237)</b>	<b>(77,731)</b>	<b>(440,984)</b>

**The Bank of N.T. Butterfield & Son Limited**  
**Notes to the Consolidated Financial Statements (unaudited) (continued)**  
*(In thousands of US dollars, unless otherwise stated)*

**Net Change of AOCIL Components**

	Line item in the consolidated statements of operations, if any	Three months ended		Nine months ended	
		September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
<b>Net unrealized gains (losses) on translation of net investment in foreign operations adjustments</b>					
Foreign currency translation adjustments	N/A	(14,829)	(27,752)	2,840	(63,463)
Gains (losses) on net investment hedge	N/A	14,125	23,447	(3,188)	55,075
<b>Net change</b>		<b>(704)</b>	<b>(4,305)</b>	<b>(348)</b>	<b>(8,388)</b>
<b>Held-to-maturity investment adjustments</b>					
Net unamortized gains (losses) transferred from AFS	N/A	—	—	—	(99,143)
Amortization of net gains (losses) to net income	Interest income on investments	2,651	3,080	7,282	5,283
<b>Net change</b>		<b>2,651</b>	<b>3,080</b>	<b>7,282</b>	<b>(93,860)</b>
<b>Available-for-sale investment adjustments</b>					
Gross unrealized gains (losses)	N/A	(32,359)	(90,801)	(16,006)	(322,409)
Net unrealized (gains) losses transferred to HTM	N/A	—	—	—	99,143
Transfer of realized (gains) losses to net income	Net realized gains (losses) on AFS investments	3	—	14	—
Foreign currency translation adjustments of related balances	N/A	1,604	2,709	(702)	5,065
<b>Net change</b>		<b>(30,752)</b>	<b>(88,092)</b>	<b>(16,694)</b>	<b>(218,201)</b>
<b>Employee benefit plans adjustments</b>					
<b>Defined benefit pension plan</b>					
Net actuarial gain (loss)	N/A	—	(9)	—	339
Net loss (gain) on settlement reclassified to net income	Net other gains (losses)	—	26	—	(794)
Amortization of net actuarial (gains) losses	Non-service employee benefits expense	571	552	1,713	1,666
Amortization of prior service (credit) cost	Non-service employee benefits expense	20	19	59	63
Foreign currency translation adjustments of related balances	N/A	119	693	(40)	1,632
<b>Net change</b>		<b>710</b>	<b>1,281</b>	<b>1,732</b>	<b>2,906</b>
<b>Post-retirement healthcare plan</b>					
Amortization of net actuarial (gains) losses	Non-service employee benefits expense	131	361	393	1,083
Amortization of prior service (credit) cost	Non-service employee benefits expense	(333)	131	(1,000)	393
<b>Net change</b>		<b>(202)</b>	<b>492</b>	<b>(607)</b>	<b>1,476</b>
<b>Other comprehensive income (loss), net of taxes</b>		<b>(28,297)</b>	<b>(87,544)</b>	<b>(8,635)</b>	<b>(316,067)</b>

**Note 21: Capital structure**

**Authorized Capital**

The Bank trades on the New York Stock Exchange under the ticker symbol "NTB" and on the BSX under the symbol "NTB.BH".

The par value of each issued common share and each authorized but unissued common share is BM\$0.01 and the authorized share capital of the Bank comprises 2,000,000,000 common shares of par value BM\$0.01 each, 6,000,000,000 non-voting ordinary shares of par value BM\$0.01 each, 110,200,001 preference shares of par value US\$0.01 each and 50,000,000 preference shares of par value £0.01 each.

**Dividends Declared**

During the nine months ended September 30, 2023, the Bank declared and paid cash dividends of \$1.32 (September 30, 2022: \$1.32) for each common share as of the related record date.

The Bank is required to comply with Section 54 of the Companies Act 1981 issued by the Government of Bermuda (the "Companies Act") each time a dividend is declared or paid by the Bank and also obtain a letter of no objection from the BMA pursuant to the Banks and Deposit Companies Act 1999 for any dividends declared. The Bank has complied with Section 54 and has obtained the BMA's letter of no objection for all dividends declared during the periods presented.

**The Bank of N.T. Butterfield & Son Limited**  
**Notes to the Consolidated Financial Statements (unaudited) (continued)**  
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**Regulatory Capital**

The Bank's regulatory capital is determined in accordance with current Basel III guidelines as issued by the BMA. The Bank is fully compliant with all regulatory capital requirements to which it is subject, and it maintains capital ratios in excess of regulatory minimums as at September 30, 2023 and December 31, 2022. The following table sets forth the Bank's capital adequacy in accordance with the Basel III framework:

	September 30, 2023		December 31, 2022	
	Actual	Regulatory minimum	Actual	Regulatory minimum
<b>Capital</b>				
CET 1 capital	1,059,278	N/A	983,342	N/A
Tier 1 capital	1,059,278	N/A	983,342	N/A
Tier 2 capital	109,306	N/A	183,640	N/A
Total capital	1,168,584	N/A	1,166,982	N/A
<b>Risk Weighted Assets</b>	4,521,728	N/A	4,843,370	N/A
<b>Leverage Ratio Exposure Measure</b>	13,549,592	N/A	14,774,309	N/A
<b>Capital Ratios (%)</b>				
CET 1 capital	23.4 %	10.0 %	20.3 %	10.0 %
Tier 1 capital	23.4 %	11.5 %	20.3 %	11.5 %
Total capital	25.8 %	13.5 %	24.1 %	13.5 %
Leverage ratio	7.8 %	5.0 %	6.7 %	5.0 %

**Note 22: Related party transactions**

**Financing Transactions**

Certain directors and executives of the Bank, companies in which they are principal owners and/or members of the board, and trusts in which they are involved, have deposits with the Bank, have loans and/or are guarantors for loans with the Bank. Loans to directors were made in the ordinary course of business at normal credit terms, including interest rate and collateral requirements. Loans to executives may be eligible for preferential rates. All of these loans were considered performing loans as at September 30, 2023 and December 31, 2022. Loan balances with directors and executives of the Bank, companies in which they are principal owners and/or members of the board, and trusts in which they are involved were as follows:

<b>Balance at December 31, 2021</b>	7,375
Net loans issued (repaid) during the year	(5,362)
Effect of changes in the composition of related parties	18,380
<b>Balance at December 31, 2022</b>	20,393
Net loans issued (repaid) during period	(523)
<b>Balance at September 30, 2023</b>	19,870

<b>Consolidated balance sheets</b>	September 30, 2023	December 31, 2022
Deposits	53,497	92,806

<b>Consolidated statement of operations</b>	Three months ended		Nine months ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Interest and fees on loans	294	280	850	606
Total non-interest expense	37	47	162	173
Other non-interest income	111	—	147	—

Certain affiliates of the Bank have loans and deposits with the Bank which were made and are maintained in the ordinary course of business on normal commercial terms. Balances with these parties were as follows:

<b>Consolidated balance sheets</b>	September 30, 2023	December 31, 2022
Loans	9,917	10,211
Deposits	418	560
Accrued interest and other liabilities	341	180

**The Bank of N.T. Butterfield & Son Limited**  
**Notes to the Consolidated Financial Statements (unaudited) (continued)**  
*(In thousands of US dollars, unless otherwise stated)*

<b>Consolidated statement of operations</b>	Three months ended		Nine months ended	
	<b>September 30, 2023</b>	September 30, 2022	<b>September 30, 2023</b>	September 30, 2022
Interest and fees on loans	212	178	617	477
Total non-interest expense	435	284	1,206	1,025
Other non-interest income	61	58	182	175

**Investments**

The Bank held seed investments in Butterfield mutual funds, which were managed by a wholly-owned subsidiary of the Bank. These investments were sold during the year ended December 31, 2021.

As at September 30, 2023, several Butterfield mutual funds which are managed by a wholly owned subsidiary of the Bank, had loan balances and deposit balances held with the Bank. The Bank also earned asset management revenue and custody and other administration services revenue from funds managed by a wholly-owned subsidiary of the Bank and from directors and executives, companies in which they are principal owners and/or members of the board and trusts in which they are involved, as well as other income from other related parties.

<b>Consolidated balance sheets</b>	<b>September 30, 2023</b>	December 31, 2022
Loans	10	—
Deposits	36,978	20,549

<b>Consolidated statement of operations</b>	Three months ended		Nine months ended	
	<b>September 30, 2023</b>	September 30, 2022	<b>September 30, 2023</b>	September 30, 2022
Asset management	2,356	2,252	6,855	5,338
Custody and other administration services	305	268	864	577
Interest expense - deposits	221	—	235	—

**Note 23: Subsequent events**

On October 24, 2023, the Board of Directors declared an interim dividend of \$0.44 per common share to be paid on November 22, 2023 to shareholders of record on November 8, 2023.