

FINANCIAL REPORT FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2022
THE BANK OF N.T. BUTTERFIELD & SON LIMITED



INDEX TO FINANCIAL STATEMENTS

Unaudited Consolidated Financial Statements	Page
Consolidated Balance Sheets (unaudited) as of September 30, 2022 and December 31, 2021	2
Consolidated Statements of Operations (unaudited) for the Three and Nine Months Ended September 30, 2022 and 2021	3
Consolidated Statements of Comprehensive Income (unaudited) for the Three and Nine Months Ended September 30, 2022 and 2021	4
Consolidated Statements of Changes in Shareholders' Equity (unaudited) for the Three and Nine Months Ended September 30, 2022 and 2021	5
Consolidated Statements of Cash Flows (unaudited) for the Nine Months Ended September 30, 2022 and 2021	6
Notes to the Consolidated Financial Statements (unaudited)	7

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, 2022	December 31, 2021
Assets		
Cash and demand deposits with banks - Non-interest bearing	101,010	115,651
Demand deposits with banks - Interest bearing	307,887	437,644
Cash equivalents - Interest bearing	1,075,922	1,626,538
Cash due from banks	1,484,819	2,179,833
Securities purchased under agreements to resell	348,945	96,107
Short-term investments	646,464	1,198,918
Investment in securities		
Equity securities at fair value	250	222
Available-for-sale at fair value (amortized cost: \$2,231,630 (2021: \$3,495,564))	1,991,568	3,473,730
Held-to-maturity (fair value: \$3,238,550 (2021: \$2,786,112))	3,813,608	2,763,344
Total investment in securities	5,805,426	6,237,296
Loans		
Loans	5,017,172	5,268,743
Allowance for credit losses	(25,063)	(28,073)
Loans, net of allowance for credit losses	4,992,109	5,240,670
Premises, equipment and computer software, net of accumulated depreciation	143,641	138,686
Goodwill	21,261	25,356
Other intangible assets, net	50,593	60,750
Equity method investments	12,257	12,614
Other real estate owned, net	1,080	691
Accrued interest and other assets	192,742	144,279
Total assets	13,699,337	15,335,200
Liabilities		
Deposits		
Non-interest bearing	2,963,681	2,820,609
Interest bearing	9,497,690	11,049,614
Total deposits	12,461,371	13,870,223
Employee benefit plans	123,778	126,230
Accrued interest and other liabilities	187,146	189,378
Total other liabilities	310,924	315,608
Long-term debt	172,186	171,876
Total liabilities	12,944,481	14,357,707
Commitments, contingencies and guarantees (Note 10)		
Shareholders' equity		
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: 50,257,948 (2021: 49,911,351)	503	499
Additional paid-in capital	1,027,465	1,017,640
Retained earnings (Accumulated deficit)	188,472	104,329
Less: treasury common shares, at cost: 619,212 (2021: 619,212)	(20,600)	(20,058)
Accumulated other comprehensive income (loss)	(440,984)	(124,917)
Total shareholders' equity	754,856	977,493
Total liabilities and shareholders' equity	13,699,337	15,335,200

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, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Non-interest income				
Asset management	7,413	7,431	22,294	22,293
Banking	14,051	12,603	39,647	36,549
Foreign exchange revenue	11,834	10,809	36,311	32,543
Trust	12,568	12,895	38,572	38,698
Custody and other administration services	3,343	3,737	10,271	11,372
Other non-interest income	711	1,542	4,556	3,978
Total non-interest income	49,920	49,017	151,651	145,433
Interest income				
Interest and fees on loans	65,268	55,845	175,866	166,939
Investments (none of the investment securities are intrinsically tax-exempt)				
Available-for-sale	8,518	12,083	30,023	36,214
Held-to-maturity	20,893	13,715	55,796	39,628
Deposits with banks and other	9,969	359	15,225	1,163
Total interest income	104,648	82,002	276,910	243,944
Interest expense				
Deposits	11,095	3,921	20,720	11,453
Long-term debt	2,400	2,400	7,201	7,201
Total interest expense	13,495	6,321	27,921	18,654
Net interest income before provision for credit losses	91,153	75,681	248,989	225,290
Provision for credit recoveries (losses)	(793)	(4)	(783)	2,521
Net interest income after provision for credit losses	90,360	75,677	248,206	227,811
Net gains (losses) on equity securities	42	—	28	85
Net realized gains (losses) on available-for-sale investments	—	(239)	—	(239)
Net gains (losses) on other real estate owned	(25)	37	14	(26)
Net other gains (losses)	54	476	910	384
Total other gains (losses)	71	274	952	204
Total net revenue	140,351	124,968	400,809	373,448
Non-interest expense				
Salaries and other employee benefits	41,005	41,011	122,424	121,219
Technology and communications	14,295	16,336	42,411	48,095
Professional and outside services	4,839	5,699	15,323	15,822
Property	7,923	7,819	23,414	22,877
Indirect taxes	5,192	5,375	16,599	16,616
Non-service employee benefits expense	958	971	2,823	2,914
Marketing	1,456	919	4,547	3,323
Amortization of intangible assets	1,402	1,500	4,286	4,522
Other expenses	4,921	4,781	15,112	14,703
Total non-interest expense	81,991	84,411	246,939	250,091
Net income before income taxes	58,360	40,557	153,870	123,357
Income tax benefit (expense)	(929)	(774)	(2,959)	(2,344)
Net income	57,431	39,783	150,911	121,013
Earnings per common share				
Basic earnings per share	1.16	0.80	3.04	2.44
Diluted earnings per share	1.15	0.80	3.03	2.42

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	
	September 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Net income	57,431	39,783	150,911	121,013
Other comprehensive income (loss), net of taxes				
Unrealized net gains (losses) on translation of net investment in foreign operations	(4,305)	(667)	(8,388)	226
Unrealized net gains (losses) on held-to-maturity investments	3,080	18	(93,860)	165
Unrealized net gains (losses) on available-for-sale investments	(88,092)	(12,050)	(218,201)	(67,542)
Employee benefit plans adjustments	1,773	1,719	4,382	3,967
Other comprehensive income (loss), net of taxes	(87,544)	(10,980)	(316,067)	(63,184)
Total comprehensive income (loss)	(30,113)	28,803	(165,156)	57,829

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, 2022		September 30, 2021		September 30, 2022		September 30, 2021	
	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
Common share capital issued and outstanding								
Balance at beginning of period	50,248,890	502	50,207,357	502	49,911,351	499	50,010,948	500
Retirement of shares	—	—	(122,000)	(1)	(102,000)	(1)	(330,828)	(3)
Issuance of common shares	9,058	1	22,683	—	448,597	5	427,920	4
Balance at end of period	50,257,948	503	50,108,040	501	50,257,948	503	50,108,040	501
Additional paid-in capital								
Balance at beginning of period		1,023,097		1,016,327		1,017,640		1,013,326
Share-based compensation		4,351		3,796		11,297		11,003
Share-based settlements		18		577		613		595
Retirement of shares		—		(2,469)		(2,080)		(6,689)
Issuance of common shares, net of underwriting discounts and commissions		(1)		—		(5)		(4)
Balance at end of period		1,027,465		1,018,231		1,027,465		1,018,231
Retained earnings (Accumulated deficit)								
Balance at beginning of period		152,880		69,833		104,329		33,918
Net Income for the period		57,431		39,783		150,911		121,013
Common share cash dividends declared and paid, \$0.44 and \$1.32 per share (2021: \$0.44 and \$1.32 per share)		(21,839)		(21,802)		(65,494)		(65,549)
Retirement of shares		—		(1,162)		(1,274)		(2,730)
Balance at end of period		188,472		86,652		188,472		86,652
Treasury common shares								
Balance at beginning of period	619,212	(20,600)	619,212	(18,159)	619,212	(20,058)	619,212	(16,116)
Purchase of treasury common shares	—	—	122,000	(4,107)	102,000	(3,897)	330,828	(11,940)
Retirement of shares	—	—	(122,000)	3,632	(102,000)	3,355	(330,828)	9,422
Balance at end of period	619,212	(20,600)	619,212	(18,634)	619,212	(20,600)	619,212	(18,634)
Accumulated other comprehensive income (loss)								
Balance at beginning of period		(353,440)		(101,884)		(124,917)		(49,680)
Other comprehensive income (loss), net of taxes		(87,544)		(10,980)		(316,067)		(63,184)
Balance at end of period		(440,984)		(112,864)		(440,984)		(112,864)
Total shareholders' equity		754,856		973,886		754,856		973,886

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, 2022 September 30, 2021

	September 30, 2022	September 30, 2021
Cash flows from operating activities		
Net income	150,911	121,013
Adjustments to reconcile net income to operating cash flows		
Depreciation and amortization	31,260	54,454
Provision for credit (recoveries) losses	783	(2,521)
Share-based payments and settlements	11,910	11,598
Net change in equity securities at fair value	(28)	7,094
Net realized (gains) losses on available-for-sale investments	—	239
Net (gains) losses on other real estate owned	(14)	26
(Increase) decrease in carrying value of equity method investments	238	(158)
Dividends received from equity method investments	119	401
Changes in operating assets and liabilities		
(Increase) decrease in accrued interest receivable and other assets	(58,569)	(5,945)
Increase (decrease) in employee benefit plans, accrued interest payable and other liabilities	11,005	(6,523)
Cash provided by (used in) operating activities	147,615	179,678
Cash flows from investing activities		
(Increase) decrease in securities purchased under agreements to resell	(252,838)	27,515
Short-term investments other than restricted cash: proceeds from maturities and sales	2,218,276	1,815,393
Short-term investments other than restricted cash: purchases	(1,812,381)	(2,285,207)
Available-for-sale investments: proceeds from sale	—	189,417
Available-for-sale investments: proceeds from maturities and pay downs	198,451	513,551
Available-for-sale investments: purchases	(83,900)	(1,354,984)
Held-to-maturity investments: proceeds from maturities and pay downs	327,401	504,036
Held-to-maturity investments: purchases	(383,332)	(1,077,803)
Net (increase) decrease in loans	(131,421)	(73,085)
Additions to premises, equipment and computer software	(20,783)	(8,521)
Proceeds from sale of other real estate owned	731	4,430
Cash provided by (used in) investing activities	60,204	(1,745,258)
Cash flows from financing activities		
Net increase (decrease) in deposits	(695,114)	662,316
Common shares repurchased	(3,897)	(11,940)
Cash dividends paid on common shares	(65,494)	(65,549)
Cash provided by (used in) financing activities	(764,505)	584,827
Net effect of exchange rates on cash, cash equivalents and restricted cash	(139,283)	(70)
Net increase (decrease) in cash, cash equivalents and restricted cash	(695,969)	(980,823)
Cash, cash equivalents and restricted cash: beginning of period	2,203,497	3,314,498
Cash, cash equivalents and restricted cash: end of period	1,507,528	2,333,675
Components of cash, cash equivalents and restricted cash at end of period		
Cash due from banks	1,484,819	2,309,502
Restricted cash included in short-term investments on the consolidated balance sheets	22,709	24,173
Total cash, cash equivalents and restricted cash at end of period	1,507,528	2,333,675
Supplemental disclosure of non-cash items		
Transfer to (out of) other real estate owned	1,193	704
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	570

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, 2021.

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 and impairment of financial instruments
- Impairment of long-lived assets
- Impairment of goodwill
- Employee benefit plans
- Share-based compensation

New Accounting Pronouncements

The following accounting developments were issued during the nine months ended September 30, 2022 or are accounting standards pending adoption:

In March 2022, the Financial Accounting Standards Board ("FASB") published ASU 2022-01, Derivatives and Hedging (Topic 815), Fair Value Hedging - Portfolio Layer Method, which will expand companies' abilities to hedge the benchmark interest rate risk of portfolios of financial assets (or beneficial interests) in a fair value hedge. The ASU expands the use of the portfolio layer method (previously referred to as the last-of-layer method) to allow multiple hedges of a single closed portfolio of assets using spot starting, forward starting, and amortizing-notional swaps. The ASU also permits both prepayable and nonprepayable financial assets to be included in the closed portfolio of assets hedged in a portfolio layer hedge. The ASU further requires that basis adjustments not be allocated to individual assets for active portfolio layer method hedges, but rather be maintained on the closed portfolio of assets as a whole. The ASU is effective for public business entities for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years and early adoption is permitted. The Bank does not anticipate that this ASU will have a material impact on its consolidated financial statements.

In March 2022, the FASB published ASU 2022-02, Financial Instruments-Credit Losses (Topic 326), Troubled Debt Restructurings and Vintage Disclosures. ASU 2022-02 addresses areas identified by the FASB as part of its post-implementation review of the credit losses standard (ASU 2016-13) that introduced the CECL model. The amendments eliminate the accounting guidance for troubled debt restructurings ("TDRs") by creditors that have adopted the CECL model and enhance the disclosure requirements for loan refinancings and restructurings made with borrowers experiencing financial difficulty. In addition, the amendments require a public business entity to disclose current-period gross write-offs for financing receivables and net investment in leases by year of origination in the vintage disclosures. For entities that have adopted ASU 2016-13, ASU 2022-02 is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. Early adoption is permitted if an entity has adopted ASU 2016-13. An entity may elect to early adopt the amendments related to TDRs separately from the amendments related to vintage disclosures. Entities can elect to adopt the guidance on TDRs using either a prospective or modified retrospective transition. If an entity elects to apply a modified retrospective transition, it will record a cumulative effect adjustment to retained earnings in the period of adoption, representing any change in the allowance for credit losses for loans modified in TDRs under ASC 310-40. The Bank does not intend to early adopt this ASU for the year ending December 31, 2022 but has determined that this ASU will only have an effect on certain disclosures.

In June 2022, the FASB published ASU 2022-03, Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions. The update was issued to increase the comparability of financial information across reporting entities that hold these investments. The amendments clarify that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security. As a result, it should not be considered in measuring fair value. New disclosures are required about the nature of the restrictions and their remaining duration. The ASU is effective for public business entities for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years and early adoption is permitted. The Bank does not anticipate that this ASU will have a material impact on its consolidated financial statements.

In September 2022, the FASB published ASU 2022-04, Liabilities - Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations which establishes the disclosure requirements of supplier finance programs to increase their transparency. FASB investor outreach identified a lack of transparency about supplier finance programs, as no explicit disclosure requirements were in GAAP. Entities that participate in supplier finance programs typically present such obligations in the same balance sheet line item as accounts payable, which can obscure the nature of this activity for financial statement users. The amendments in this Update address investor and other financial statement user requests for additional information about the use of supplier finance programs by the buyer party to understand the effect of those programs on an entity's working capital, liquidity, and cash flows. The ASU is effective for all entities for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, except for the amendment on rollforward information, which is effective for fiscal years beginning after December 15, 2023 and early adoption is permitted. The Bank does not anticipate that this ASU will have a material impact on its consolidated financial statements.

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 3: Cash due from banks

	September 30, 2022	December 31, 2021
Non-interest bearing		
Cash and demand deposits with banks	101,010	115,651
Interest bearing¹		
Demand deposits with banks	307,887	437,644
Cash equivalents	1,075,922	1,626,538
Sub-total - Interest bearing	1,383,809	2,064,182
Total cash due from banks	1,484,819	2,179,833

¹ Interest bearing cash due from banks includes certain demand deposits with banks as at September 30, 2022 in the amount of \$263.7 million (December 31, 2021: \$280.5 million) that are earning interest at a negligible rate.

Note 4: Short-term investments

	September 30, 2022	December 31, 2021
Unrestricted		
Maturing within three months	508,588	818,340
Maturing between three to six months	115,167	252,340
Maturing between six to twelve months	—	104,574
Total unrestricted short-term investments	623,755	1,175,254
Affected by drawing restrictions related to minimum reserve and derivative margin requirements		
Interest earning demand and term deposits	22,709	23,664
Total restricted short-term investments	22,709	23,664
Total short-term investments	646,464	1,198,918

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, 2022				December 31, 2021			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Equity securities								
Mutual funds	724	—	(474)	250	724	—	(502)	222
Total equity securities	724	—	(474)	250	724	—	(502)	222
Available-for-sale								
US government and federal agencies	1,951,493	17	(223,464)	1,728,046	3,163,964	30,945	(51,285)	3,143,624
Non-US governments debt securities	244,987	—	(14,442)	230,545	291,119	—	(1,526)	289,593
Asset-backed securities - Student loans	13,290	—	(76)	13,214	13,290	—	(116)	13,174
Residential mortgage-backed securities	21,860	—	(2,097)	19,763	27,191	218	(70)	27,339
Total available-for-sale	2,231,630	17	(240,079)	1,991,568	3,495,564	31,163	(52,997)	3,473,730
Held-to-maturity¹								
US government and federal agencies	3,813,608	—	(575,058)	3,238,550	2,763,344	57,497	(34,729)	2,786,112
Total held-to-maturity	3,813,608	—	(575,058)	3,238,550	2,763,344	57,497	(34,729)	2,786,112

¹ For the nine months ended September 30, 2022, and the nine months ended September 30, 2021, impairments recognized in other comprehensive loss for HTM investments were nil.

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 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, 2022, comprising 163 securities representing 99.8% of the AFS portfolios' carrying value (December 31, 2021: 67 and 73.6%), represent credit losses. Total gross unrealized AFS losses were 12.1% of the fair value of the affected securities (December 31, 2021: 2.1%).

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, 2022, were comprised of 220 securities representing 100.0% of the HTM portfolios' carrying value (December 31, 2021: 57 and 59.1%). Total gross unrealized HTM losses were 17.8% of the fair value of affected securities (December 31, 2021: 2.2%).

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 primarily 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.

Investments in **Residential mortgage-backed securities** relates to 13 securities (December 31, 2021: 4) 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% - 48.1% and 47.7% - 56.4%, 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>		<u>Total fair value</u>	<u>Total gross unrealized losses</u>
	<u>Fair value</u>	<u>Gross unrealized losses</u>	<u>Fair value</u>	<u>Gross unrealized losses</u>		
September 30, 2022						
Available-for-sale securities with unrealized losses						
US government and federal agencies	909,894	(101,412)	813,798	(122,052)	1,723,692	(223,464)
Non-US governments debt securities	208,153	(14,032)	22,392	(410)	230,545	(14,442)
Asset-backed securities - Student loans	13,214	(76)	—	—	13,214	(76)
Residential mortgage-backed securities	16,295	(1,656)	3,468	(441)	19,763	(2,097)
Total available-for-sale securities with unrealized losses	1,147,556	(117,176)	839,658	(122,903)	1,987,214	(240,079)
Held-to-maturity securities with unrealized losses						
US government and federal agencies	1,670,230	(201,140)	1,568,320	(373,918)	3,238,550	(575,058)
December 31, 2021						
Available-for-sale securities with unrealized losses						
US government and federal agencies	2,144,105	(47,214)	102,428	(4,071)	2,246,533	(51,285)
Non-US governments debt securities	267,201	(1,125)	22,392	(401)	289,593	(1,526)
Asset-backed securities - Student loans	—	—	13,174	(116)	13,174	(116)
Residential mortgage-backed securities	8,051	(70)	—	—	8,051	(70)
Total available-for-sale securities with unrealized losses	2,419,357	(48,409)	137,994	(4,588)	2,557,351	(52,997)
Held-to-maturity securities with unrealized losses						
US government and federal agencies	1,568,315	(33,554)	29,713	(1,175)	1,598,028	(34,729)

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

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.

September 30, 2022	Remaining term to maturity						Carrying amount
	Within 3 months	3 to 12 months	1 to 5 years	5 to 10 years	Over 10 years	No specific or single maturity	
Available-for-sale							
US government and federal agencies	—	144,458	528,715	159,237	—	895,636	1,728,046
Non-US governments debt securities	—	—	230,545	—	—	—	230,545
Asset-backed securities - Student loans	—	—	—	—	—	13,214	13,214
Residential mortgage-backed securities	—	—	—	—	—	19,763	19,763
Total available-for-sale	—	144,458	759,260	159,237	—	928,613	1,991,568
Held-to-maturity							
US government and federal agencies	—	—	—	—	—	3,813,608	3,813,608

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.

Pledged Investments	September 30, 2022		December 31, 2021	
	Amortized cost	Fair value	Amortized cost	Fair value
Available-for-sale	677	625	807	842
Held-to-maturity	33,481	25,620	33,102	31,958

Sale Proceeds and Realized Gains and Losses of AFS Securities

	Nine months ended							
	September 30, 2022				September 30, 2021			
	Sale proceeds	Gross realized gains	Gross realized (losses)	Transfers to HTM ¹	Sale proceeds	Gross realized gains	Gross realized (losses)	Transfers to HTM
US government and federal agencies	—	—	—	998,157	189,417	1,563	(1,802)	—
Total	—	—	—	998,157	189,417	1,563	(1,802)	—

¹During the nine months ended September 30, 2022, certain investments were transferred out of the AFS categorization and into HTM. The transfers were recorded at the 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 into net income 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 effective yield on total loans as at September 30, 2022 is 5.36% (December 31, 2021: 4.00%). The interest receivable on total loans as at September 30, 2022 is \$9.2 million (December 31, 2021: \$7.6 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.

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

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.

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

September 30, 2022	Pass	Special mention	Substandard	Non-accrual	Total amortized cost	Allowance for expected credit losses	Total net loans
Commercial loans							
Government	296,464	—	—	—	296,464	(1,784)	294,680
Commercial and industrial	333,956	—	804	18,485	353,245	(10,432)	342,813
Commercial overdrafts	104,982	129	597	1	105,709	(123)	105,586
Total commercial loans	735,402	129	1,401	18,486	755,418	(12,339)	743,079
Commercial real estate loans							
Commercial mortgage	622,022	2,633	1,522	4,562	630,739	(975)	629,764
Construction	9,946	—	—	—	9,946	—	9,946
Total commercial real estate loans	631,968	2,633	1,522	4,562	640,685	(975)	639,710
Consumer loans							
Automobile financing	20,839	—	—	124	20,963	(83)	20,880
Credit card	68,259	—	291	—	68,550	(682)	67,868
Overdrafts	44,048	—	—	12	44,060	(310)	43,750
Other consumer ¹	59,850	—	—	795	60,645	(1,075)	59,570
Total consumer loans	192,996	—	291	931	194,218	(2,150)	192,068
Residential mortgage loans	3,277,987	6,382	105,545	36,937	3,426,851	(9,599)	3,417,252
Total	4,838,353	9,144	108,759	60,916	5,017,172	(25,063)	4,992,109

¹ Other consumer loans' amortized cost includes \$13 million of cash and portfolio secured lending and \$39 million of lending secured by buildings in construction or other collateral.

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

December 31, 2021	Pass	Special mention	Substandard	Non-accrual	Total amortized cost	Allowance for expected credit losses	Total net loans
Commercial loans							
Government	259,572	—	—	—	259,572	(969)	258,603
Commercial and industrial	353,337	—	1,079	18,549	372,965	(10,115)	362,850
Commercial overdrafts	104,814	145	446	2	105,407	(42)	105,365
Total commercial loans	717,723	145	1,525	18,551	737,944	(11,126)	726,818
Commercial real estate loans							
Commercial mortgage	673,167	4,034	1,578	4,740	683,519	(1,168)	682,351
Construction	9,645	—	—	—	9,645	—	9,645
Total commercial real estate loans	682,812	4,034	1,578	4,740	693,164	(1,168)	691,996
Consumer loans							
Automobile financing	21,412	—	—	117	21,529	(88)	21,441
Credit card	72,569	—	284	—	72,853	(1,420)	71,433
Overdrafts	42,293	—	—	4	42,297	(236)	42,061
Other consumer ¹	76,963	—	72	1,038	78,073	(1,276)	76,797
Total consumer loans	213,237	—	356	1,159	214,752	(3,020)	211,732
Residential mortgage loans	3,464,857	14,070	107,361	36,595	3,622,883	(12,759)	3,610,124
Total	5,078,629	18,249	110,820	61,045	5,268,743	(28,073)	5,240,670

¹Other consumer loans' amortized cost includes \$13 million of cash and portfolio secured lending and \$57 million of lending secured by buildings in construction or other collateral.

Based on the most recent analysis performed, the amortized cost of loans by year of origination and credit quality indicator is as follows:

September 30, 2022	Pass	Special mention	Substandard	Non-accrual	Total amortized cost
Loans by origination year					
2022	767,156	—	—	—	767,156
2021	666,422	—	—	1	666,423
2020	507,183	168	—	6	507,357
2019	691,347	—	279	2,908	694,534
2018	403,857	—	12,419	1,143	417,419
Prior	1,562,702	8,050	95,174	56,843	1,722,769
Overdrafts and credit cards	239,686	926	887	15	241,514
Total amortized cost	4,838,353	9,144	108,759	60,916	5,017,172

December 31, 2021	Pass	Special mention	Substandard	Non-accrual	Total amortized cost
Loans by origination year					
2021	911,403	—	232	13	911,648
2020	605,139	—	—	3	605,142
2019	917,700	—	290	181	918,171
2018	513,293	6,060	12,548	1,154	533,055
2017	493,091	—	3,400	12,215	508,706
Prior	1,393,929	11,131	93,620	47,474	1,546,154
Overdrafts and credit cards	244,074	1,058	730	5	245,867
Total amortized cost	5,078,629	18,249	110,820	61,045	5,268,743

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

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, 2022	30 - 59 days	60 - 89 days	More than 90 days	Total past due loans	Total current	Total amortized cost
Commercial loans						
Government	—	—	—	—	296,464	296,464
Commercial and industrial	—	—	18,485	18,485	334,760	353,245
Commercial overdrafts	—	—	1	1	105,708	105,709
Total commercial loans	—	—	18,486	18,486	736,932	755,418
Commercial real estate loans						
Commercial mortgage	874	—	3,202	4,076	626,663	630,739
Construction	—	—	—	—	9,946	9,946
Total commercial real estate loans	874	—	3,202	4,076	636,609	640,685
Consumer loans						
Automobile financing	60	17	124	201	20,762	20,963
Credit card	616	166	291	1,073	67,477	68,550
Overdrafts	—	—	12	12	44,048	44,060
Other consumer	212	17	795	1,024	59,621	60,645
Total consumer loans	888	200	1,222	2,310	191,908	194,218
Residential mortgage loans	13,244	4,935	42,785	60,964	3,365,887	3,426,851
Total amortized cost	15,006	5,135	65,695	85,836	4,931,336	5,017,172
December 31, 2021						
	30 - 59 days	60 - 89 days	More than 90 days	Total past due loans	Total current	Total amortized cost
Commercial loans						
Government	—	—	—	—	259,572	259,572
Commercial and industrial	53	—	18,549	18,602	354,363	372,965
Commercial overdrafts	—	—	1	1	105,406	105,407
Total commercial loans	53	—	18,550	18,603	719,341	737,944
Commercial real estate loans						
Commercial mortgage	—	—	4,739	4,739	678,780	683,519
Construction	—	—	—	—	9,645	9,645
Total commercial real estate loans	—	—	4,739	4,739	688,425	693,164
Consumer loans						
Automobile financing	56	34	118	208	21,321	21,529
Credit card	471	681	285	1,437	71,416	72,853
Overdrafts	—	—	5	5	42,292	42,297
Other consumer	67	15	1,038	1,120	76,953	78,073
Total consumer loans	594	730	1,446	2,770	211,982	214,752
Residential mortgage loans	12,602	1,501	44,763	58,866	3,564,017	3,622,883
Total amortized cost	13,249	2,231	69,498	84,978	5,183,765	5,268,743

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 Allowances For Credit Losses

The decrease in the allowance for credit losses during the nine months ended September 30, 2022 was primarily attributable to changes in macroeconomic factors, such as GDP forecasts, and the repayment of some commercial facilities. As per the Bank's accounting policy, as disclosed in Note 2 of the December 31, 2021 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, 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)
Allowances for expected credit losses at end of period	12,339	975	2,150	9,599	25,063

	Nine months ended September 30, 2021				
	Commercial	Commercial real estate	Consumer	Residential mortgage	Total
Balance at the beginning of period	11,609	2,104	4,476	15,909	34,098
Provision increase (decrease)	(171)	(820)	(1,710)	(245)	(2,946)
Recoveries of previous charge-offs	65	—	994	191	1,250
Charge-offs	(108)	—	(928)	(2,657)	(3,693)
Other	(9)	(1)	—	(24)	(34)
Allowances for expected credit losses at end of period	11,386	1,283	2,832	13,174	28,675

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, 2022, no interest was recognized on non-accrual loans. Non-performing loans at September 30, 2022 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, 2022				December 31, 2021			
	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
Commercial loans								
Commercial and industrial	18,466	19	—	18,485	18,530	19	—	18,549
Commercial overdrafts	—	1	—	1	—	2	—	2
Total commercial loans	18,466	20	—	18,486	18,530	21	—	18,551
Commercial real estate loans								
Commercial mortgage	1,503	3,059	—	4,562	885	3,855	—	4,740
Total commercial real estate loans	1,503	3,059	—	4,562	885	3,855	—	4,740
Consumer loans								
Automobile financing	118	6	—	124	117	—	—	117
Credit card	—	—	291	291	—	—	284	284
Overdrafts	—	12	—	12	—	4	—	4
Other consumer	641	154	—	795	850	188	—	1,038
Total consumer loans	759	172	291	1,222	967	192	284	1,443
Residential mortgage loans								
	18,268	18,669	12,837	49,774	29,549	7,046	12,969	49,564
Total non-performing loans	38,996	21,920	13,128	74,044	49,931	11,114	13,253	74,298

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

Loans modified in a TDR

As at September 30, 2022, the Bank had no loans that were modified in a TDR during the preceding 12 months that subsequently defaulted (December 31, 2021: nil).

TDRs entered into during the period

	Nine months ended September 30, 2022			
	Number of contracts	Pre-modification recorded loans	Modification: interest capitalization	Post-modification recorded loans
Residential mortgage loans	5	2,328	424	2,752

	Nine months ended September 30, 2021			
	Number of contracts	Pre-modification recorded loans	Modification: interest capitalization	Post-modification recorded loans
Residential mortgage loans	1	284	2	286

TDRs Outstanding

	September 30, 2022		December 31, 2021	
	Accrual	Non-accrual	Accrual	Non-accrual
Commercial loans	804	—	847	—
Commercial real estate loans	1,522	2,369	1,578	2,445
Residential mortgage loans	59,795	11,502	60,453	12,653
Total TDRs outstanding	62,121	13,871	62,878	15,098

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.

Geographic region	September 30, 2022				December 31, 2021			
	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	3,591	—	—	3,591	8,675	—	—	8,675
Bermuda	46,913	1,964,438	248,395	2,259,746	46,683	2,080,385	297,731	2,424,799
Canada	465,405	—	—	465,405	1,193,387	—	—	1,193,387
Cayman	28,980	1,240,278	239,659	1,508,917	39,018	1,060,328	379,518	1,478,864
Germany	32,402	—	—	32,402	85,886	—	—	85,886
Guernsey	1	628,732	202,945	831,678	1	735,786	169,904	905,691
Ireland	70,467	—	—	70,467	37,236	—	—	37,236
Japan	7,434	—	—	7,434	4,873	—	—	4,873
Jersey	—	130,640	42,062	172,702	—	78,048	34,298	112,346
Norway	103,807	—	—	103,807	57,132	—	—	57,132
Switzerland	4,116	—	—	4,116	2,441	—	—	2,441
The Bahamas	1,528	8,269	—	9,797	1,511	9,361	—	10,872
United Kingdom	762,038	1,044,815	77,890	1,884,743	990,624	1,304,835	117,200	2,412,659
United States	950,552	—	—	950,552	1,003,365	—	—	1,003,365
Other	2,994	—	—	2,994	4,026	—	—	4,026
Total gross exposure	2,480,228	5,017,172	810,951	8,308,351	3,474,858	5,268,743	998,651	9,742,252

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 8: Deposits

By Maturity

	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		
September 30, 2022									
Demand or less than \$100k ¹	2,963,681	6,828,623	9,792,304	30,073	11,519	11,525	11,293	64,410	9,856,714
Term - \$100k or more	N/A	N/A	—	1,855,775	300,845	392,201	55,836	2,604,657	2,604,657
Total deposits	2,963,681	6,828,623	9,792,304	1,885,848	312,364	403,726	67,129	2,669,067	12,461,371

	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		
December 31, 2021									
Demand or less than \$100k ¹	2,820,609	8,104,668	10,925,277	30,181	8,949	13,094	12,426	64,650	10,989,927
Term - \$100k or more	N/A	N/A	—	1,627,330	578,096	589,161	85,709	2,880,296	2,880,296
Total deposits	2,820,609	8,104,668	10,925,277	1,657,511	587,045	602,255	98,135	2,944,946	13,870,223

¹ The weighted-average interest rate on interest-bearing demand deposits as at September 30, 2022 is 0.33% (December 31, 2021: -0.03%).

By Type and Segment

	September 30, 2022			December 31, 2021		
	Payable on demand	Payable on a fixed date	Total	Payable on demand	Payable on a fixed date	Total
Bermuda	3,827,285	640,625	4,467,910	3,820,647	690,102	4,510,749
Cayman	3,733,807	599,231	4,333,038	4,087,131	524,918	4,612,049
Channel Islands and the UK	2,231,212	1,429,211	3,660,423	3,017,499	1,729,926	4,747,425
Total deposits	9,792,304	2,669,067	12,461,371	10,925,277	2,944,946	13,870,223

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 2022 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, 2021. During the nine months ended September 30, 2022, 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, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Defined benefit pension expense (income)				
Service cost	Salaries and other employee benefits	—	—	67
Interest cost	Non-service employee benefits expense	741	682	2,052
Expected return on plan assets	Non-service employee benefits expense	(1,624)	(1,608)	(4,838)
Amortization of net actuarial (gains) losses	Non-service employee benefits expense	552	691	2,077
Amortization of prior service (credit) cost	Non-service employee benefits expense	19	7	(41)
Settlement (gain) loss	Net other gains (losses)	26	—	—
Total defined benefit pension expense (income)		(286)	(228)	(683)
Post-retirement medical benefit expense (income)				
Service cost	Salaries and other employee benefits	32	21	62
Interest cost	Non-service employee benefits expense	778	649	1,945
Amortization of net actuarial (gains) losses	Non-service employee benefits expense	361	419	1,259
Amortization of prior service (credit) cost	Non-service employee benefits expense	131	131	393
Total post-retirement medical benefit expense (income)		1,302	1,220	3,659

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

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, 2022, \$134.6 million (December 31, 2021: \$145.7 million) of standby letters of credit were issued under this facility.

Outstanding unfunded commitments to extend credit	September 30, 2022	December 31, 2021
Commitments to extend credit	541,426	717,077
Documentary and commercial letters of credit	2,478	1,522
Total unfunded commitments to extend credit	543,904	718,599
Allowance for credit losses	(203)	(551)

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.

Outstanding financial guarantees	September 30, 2022			December 31, 2021		
	Gross	Collateral	Net	Gross	Collateral	Net
Standby letters of credit	263,348	256,198	7,150	276,464	269,204	7,260
Letters of guarantee	3,699	3,663	36	3,588	3,552	36
Total	267,047	259,861	7,186	280,052	272,756	7,296

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, 2022, the Bank had 9 open positions (December 31, 2021: 19) 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 \$348.9 million (December 31, 2021: \$96.1 million) and are included in securities purchased under agreements to resell on the consolidated balance sheets. As at September 30, 2022, there were no positions (December 31, 2021: 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.

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 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.

	Three months ended		Nine months ended	
	September 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Lease costs				
Operating lease costs	1,800	2,061	5,777	6,260
Short-term lease costs	722	352	1,646	998
Sublease (income)	(279)	(322)	(926)	(970)
Total net lease cost	2,243	2,091	6,497	6,288
Operating lease income	246	315	748	968
Other information for the period				
Right-of-use assets related to new operating lease liabilities	—	529	138	570
Operating cash flows from operating leases	1,790	1,970	5,771	6,366
Other information at end of period				
			September 30, 2022	December 31, 2021
Operating leases right-of-use assets (included in other assets on the balance sheets)			29,778	39,525
Operating lease liabilities (included in other liabilities on the balance sheets)			29,180	38,789
Weighted average remaining lease term for operating leases (in years)			9.52	9.81
Weighted average discount rate for operating leases			5.25 %	5.25 %

The following table summarizes the maturity analysis of the Bank's commitments for long-term leases as at December 31, 2021:

Year ended December 31, 2021	Operating Leases
2022	8,066
2023	6,895
2024	6,240
2025	3,957
2026	2,998
2027 & thereafter	21,754
Total commitments	49,910
Less: effect of discounting cash flows to their present value	(11,121)
Operating lease liabilities	38,789

Note 12: Segmented information

The Bank is managed by the Chairman and 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 and 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 and 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, 2021. 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

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

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.

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.

Total Assets by Segment	September 30, 2022	December 31, 2021
Bermuda	5,324,048	5,728,466
Cayman	4,589,324	4,973,402
Channel Islands and the UK	4,023,348	5,234,880
Other	33,509	33,059
Total assets before inter-segment eliminations	13,970,229	15,969,807
Less: inter-segment eliminations	(270,892)	(634,607)
Total	13,699,337	15,335,200

Three months ended September 30, 2022	Net interest income		Provision for credit recoveries (losses)	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
Total before eliminations	91,153	—	(793)	54,339	144,699	71	144,770	87,339	57,431
Inter-segment eliminations	—	—	—	(4,419)	(4,419)	—	(4,419)	(4,419)	—
Total	91,153	—	(793)	49,920	140,280	71	140,351	82,920	57,431

Three months ended September 30, 2021	Net interest income		Provision for credit recoveries (losses)	Non-interest income	Net revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
	Customer	Inter- segment							
Bermuda	37,001	(418)	261	21,458	58,302	37	58,339	47,437	10,902
Cayman	22,711	306	(297)	14,270	36,990	188	37,178	14,912	22,266
Channel Islands and the UK	15,969	112	32	11,027	27,140	49	27,189	20,262	6,927
Other	—	—	—	6,406	6,406	—	6,406	6,718	(312)
Total before eliminations	75,681	—	(4)	53,161	128,838	274	129,112	89,329	39,783
Inter-segment eliminations	—	—	—	(4,144)	(4,144)	—	(4,144)	(4,144)	—
Total	75,681	—	(4)	49,017	124,694	274	124,968	85,185	39,783

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

Nine months ended September 30, 2022	Net interest income		Provision for credit recoveries (losses)	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
Total before eliminations	248,989	—	(783)	164,673	412,879	952	413,831	262,920	150,911
Inter-segment eliminations	—	—	—	(13,022)	(13,022)	—	(13,022)	(13,022)	—
Total	248,989	—	(783)	151,651	399,857	952	400,809	249,898	150,911

Nine Months Ended September 30, 2021	Net interest income		Provision for credit recoveries (losses)	Non-interest income	Net revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
	Customer	Inter- segment							
Bermuda	111,392	(836)	1,823	62,272	174,651	921	175,572	139,716	35,856
Cayman	67,005	927	802	42,202	110,936	185	111,121	44,181	66,940
Channel Islands and the UK	46,892	(91)	(104)	33,986	80,683	(902)	79,781	61,565	18,216
Other	1	—	—	20,381	20,382	—	20,382	20,381	1
Total before eliminations	225,290	—	2,521	158,841	386,652	204	386,856	265,843	121,013
Inter-segment eliminations	—	—	—	(13,408)	(13,408)	—	(13,408)	(13,408)	—
Total	225,290	—	2,521	145,433	373,244	204	373,448	252,435	121,013

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.

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

Fair value hedges include designated currency swaps that are used to minimize the Bank's exposure to variability in the fair value of available-for-sale investments due to movements in foreign exchange rates. The effective portion of changes in the fair value of the hedging instrument is recognized in current year earnings consistent with the related change in fair value of the hedged items attributable to foreign exchange rates. 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, 2022	Derivative instrument	Number of contracts	Notional amounts	Gross positive fair value	Gross negative fair value	Net fair value
Risk management derivatives						
	Net investment hedges	1	5,276	141	—	141
	Fair value hedges	4	136,861	565	(9,344)	(8,779)
	Derivatives not formally designated as hedging instruments	30	982,016	44,626	(5,395)	39,231
	Subtotal risk management derivatives		1,124,153	45,332	(14,739)	30,593
	Client services derivatives	175	339,862	5,865	(4,989)	876
	Total derivative instruments		1,464,015	51,197	(19,728)	31,469
December 31, 2021						
Risk management derivatives						
	Net investment hedges	4	61,641	1,071	(163)	908
	Fair value hedges	4	174,169	1,216	(2,535)	(1,319)
	Derivatives not formally designated as hedging instruments	36	1,552,733	14,538	(9,566)	4,972
	Subtotal risk management derivatives		1,788,543	16,825	(12,264)	4,561
	Client services derivatives	125	331,837	1,138	(1,003)	135
	Total derivative instruments		2,120,380	17,963	(13,267)	4,696

In addition to the above, as at September 30, 2022 foreign denominated deposits of £227.5 million (December 31, 2021: £192.3 million) and CHF 0.4 million (December 31, 2021: 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 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.

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

September 30, 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	
Derivative assets						
Spot and forward foreign exchange and currency swaps	51,197	(14,344)	36,853	—	(150)	36,703
Derivative liabilities						
Spot and forward foreign exchange and currency swaps	19,728	(14,344)	5,384	—	—	5,384
Net positive fair value			31,469			

December 31, 2021	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	
Derivative assets						
Spot and forward foreign exchange and currency swaps	17,963	(9,843)	8,120	—	—	8,120
Derivative liabilities						
Spot and forward foreign exchange and currency swaps	13,267	(9,843)	3,424	—	(818)	2,606
Net positive fair value			4,696			

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, 2022	September 30, 2021	September 30, 2022	September 30, 2021
		Spot and forward foreign exchange	Foreign exchange revenue	725	(106)
Currency swaps, not designated as hedge	Foreign exchange revenue	27,989	10,090	34,262	32,416
Currency swaps - fair value hedges	Foreign exchange revenue	(3,376)	(3,983)	(7,462)	(8,028)
Total net gains (losses) recognized in net income		25,338	6,001	27,541	24,306

Derivative instrument	Consolidated statements of comprehensive income line item	Three months ended		Nine months ended	
		September 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
		Currency swaps - net investment hedge	Unrealized net gains (losses) on translation of net investment in foreign operations	79	4,246
Total net gains (losses) recognized in comprehensive income		79	4,246	(768)	5,902

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, 2021.

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 include asset-backed securities for which the market is relatively illiquid and for which information about actual trading prices is 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, 2022 and the year ended December 31, 2021.

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

	September 30, 2022				December 31, 2021			Total carrying amount / fair value
	Fair value			Total carrying amount / fair value	Fair value			
	Level 1	Level 2	Level 3		Level 1	Level 2	Level 3	
Items that are recognized at fair value on a recurring basis:								
Financial assets								
Equity securities								
Mutual funds	—	250	—	250	—	222	—	222
Total equity securities	—	250	—	250	—	222	—	222
Available-for-sale investments								
US government and federal agencies	832,410	895,636	—	1,728,046	823,809	2,319,815	—	3,143,624
Non-US governments debt securities	208,153	22,392	—	230,545	267,200	22,393	—	289,593
Asset-backed securities - Student loans	—	—	13,214	13,214	—	—	13,174	13,174
Residential mortgage-backed securities	—	19,763	—	19,763	—	27,339	—	27,339
Total available-for-sale	1,040,563	937,791	13,214	1,991,568	1,091,009	2,369,547	13,174	3,473,730
Other assets - Derivatives	—	36,853	—	36,853	—	8,120	—	8,120
Financial liabilities								
Other liabilities - Derivatives	—	5,384	—	5,384	—	3,424	—	3,424

Level 3 Reconciliation

The Level 3 financial instrument, shown as Asset-backed securities - Student loans in the above table, is a federal family education loan program guaranteed student loan security and is valued using a non-binding quote from an external security pricing service.

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

	Nine months ended September 30, 2022	Year ended December 31, 2021
	Available- for-sale investments	Available- for-sale investments
Carrying amount at beginning of period	13,174	12,945
Change in unrealized gains (losses) recognized in other comprehensive income	40	229
Carrying amount at end of period	13,214	13,174
Cumulative gain (loss) recognized in other comprehensive income	(76)	(116)

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

	Level	September 30, 2022			December 31, 2021		
		Carrying amount	Fair value	Appreciation / (depreciation)	Carrying amount	Fair value	Appreciation / (depreciation)
Financial assets							
Cash due from banks	Level 1	1,484,819	1,484,819	—	2,179,833	2,179,833	—
Securities purchased under agreements to resell	Level 2	348,945	348,945	—	96,107	96,107	—
Short-term investments	Level 1	646,464	646,464	—	1,198,918	1,198,918	—
Investments held-to-maturity	Level 2	3,813,608	3,238,550	(575,058)	2,763,344	2,786,112	22,768
Loans, net of allowance for credit losses	Level 2	4,992,109	4,960,274	(31,835)	5,240,670	5,265,049	24,379
Other real estate owned ¹	Level 2	1,080	1,080	—	691	691	—
Financial liabilities							
Term deposits	Level 2	2,669,067	2,668,244	823	2,944,946	2,948,625	(3,679)
Long-term debt	Level 2	172,186	153,075	19,111	171,876	158,993	12,883

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

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 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, 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
Assets							
Cash due from banks	1,384	—	—	—	—	101	1,485
Securities purchased under agreement to resell	349	—	—	—	—	—	349
Short-term investments	531	115	—	—	—	—	646
Investments	16	3	158	939	4,689	—	5,805
Loans	3,086	87	130	1,258	395	36	4,992
Other assets	—	—	—	—	—	422	422
Total assets	5,366	205	288	2,197	5,084	559	13,699
Liabilities and shareholders' equity							
Shareholders' equity	—	—	—	—	—	755	755
Demand deposits	6,805	—	23	—	—	2,964	9,792
Term deposits	1,886	312	404	67	—	—	2,669
Other liabilities	—	—	—	—	—	311	311
Long-term debt	—	—	75	97	—	—	172
Total liabilities and shareholders' equity	8,691	312	502	164	—	4,030	13,699
Interest rate sensitivity gap	(3,325)	(107)	(214)	2,033	5,084	(3,471)	—
Cumulative interest rate sensitivity gap	(3,325)	(3,432)	(3,646)	(1,613)	3,471	—	—

December 31, 2021	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
Assets							
Cash due from banks	2,064	—	—	—	—	116	2,180
Securities purchased under agreement to resell	96	—	—	—	—	—	96
Short-term investments	842	252	105	—	—	—	1,199
Investments	14	9	14	1,173	5,027	—	6,237
Loans	4,208	22	91	705	182	33	5,241
Other assets	—	—	—	—	—	382	382
Total assets	7,224	283	210	1,878	5,209	531	15,335
Liabilities and shareholders' equity							
Shareholders' equity	—	—	—	—	—	977	977
Demand deposits	8,077	—	27	—	—	2,821	10,925
Term deposits	1,658	587	602	98	—	—	2,945
Other liabilities	—	—	—	—	—	316	316
Long-term debt	—	—	—	172	—	—	172
Total liabilities and shareholders' equity	9,735	587	629	270	—	4,114	15,335
Interest rate sensitivity gap	(2,511)	(304)	(419)	1,608	5,209	(3,583)	—
Cumulative interest rate sensitivity gap	(2,511)	(2,815)	(3,234)	(1,626)	3,583	—	—

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 16: Long-term debt

On June 27, 2005, the Bank issued US \$150 million of Subordinated Lower Tier II capital notes. The notes were issued at par in two tranches, namely US \$90 million in Series A notes due in 2015, which were redeemed at face value in January 2014, and US \$60 million in Series B notes due in 2020. The issuance was by way of private placement with US institutional investors. The notes were listed on the BSX in the specialist debt securities category. The Series B notes paid a fixed coupon of 5.11% until July 2, 2015 when they became redeemable in whole at the Bank's option. The Series B notes were priced at a spread of 1.10% over the 10-year US Treasury yield. During September 2011, the Bank repurchased \$15 million of the outstanding 5.11% 2005 Series B Subordinated notes and the balance of \$45 million matured on July 2, 2020.

On May 27, 2008, the Bank issued US \$78 million of Subordinated Lower Tier II capital notes. The notes were issued at par and in two tranches, namely US \$53 million in Series A notes due in 2018, which were redeemed at face value in May 2013, and US \$25 million in Series B notes due in 2023. The issuance was by way of private placement with US institutional investors. The notes were listed on the BSX in the specialist debt securities category. The proceeds of the issue were used to repay the entire amount of the US \$78 million outstanding subordinated notes redeemed in May 2008. The Series B notes paid a fixed coupon of 8.44% until May 27, 2018 when they became redeemable in whole at the Bank's option. The Series B notes were priced at a spread of 4.51% over the 10-year US Treasury yield and were redeemed at face value in November 2020.

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 they become 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 will be amortized over the life of the notes.

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, 2022 and the year ended December 31, 2021.

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, 2022. The interest payments are calculated until contractual maturity using the current London Inter-bank Offered Rate ("LIBOR") and 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
Bermuda								
2018 issuance	June 1, 2023	June 1, 2028	5.25 %	3 months US\$ LIBOR + 2.255%	75,000	5,089	18,292	3,431
2020 issuance	June 15, 2025	June 15, 2030	5.25 %	3 months US\$ SOFR + 5.060%	100,000	5,250	28,858	22,423
Total					175,000	10,339	47,150	25,854
Unamortized debt issuance costs					(2,814)			
Long-term debt less unamortized debt issuance costs					172,186			

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, 2022, the average number of outstanding awards of unvested common shares was 1.0 million (September 30, 2021: 0.9 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.

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

	Three months ended		Nine months ended	
	September 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Net income	57,431	39,783	150,911	121,013
Basic Earnings Per Share				
Weighted average number of common shares issued	50,252	50,159	50,197	50,195
Weighted average number of common shares held as treasury stock	(619)	(619)	(619)	(619)
Weighted average number of common shares (in thousands)	49,633	49,540	49,578	49,576
Basic Earnings Per Share	1.16	0.80	3.04	2.44
Diluted Earnings Per Share				
Weighted average number of common shares	49,633	49,540	49,578	49,576
Net dilution impact related to awards of unvested common shares	214	343	245	327
Weighted average number of diluted common shares (in thousands)	49,847	49,883	49,823	49,903
Diluted Earnings Per Share	1.15	0.80	3.03	2.42

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, 2022 and December 31, 2021.

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.

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

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, 2022 was \$35.05 per share (December 31, 2021: \$33.26 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.

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

	Nine months ended			
	September 30, 2022		September 30, 2021	
	EDIP	ELTIP	EDIP	ELTIP
Outstanding at beginning of period	297	704	364	658
Granted	478	270	115	275
Vested (fair value in 2022: \$17.0 million, 2021: \$13.7 million)	(153)	(278)	(176)	(237)
Resignation	—	—	(2)	—
Outstanding at end of period	622	696	301	696

Share-based Compensation Cost Recognized in Net Income

	Nine months ended	
	September 30, 2022	September 30, 2021
	EDIP and ELTIP	EDIP and ELTIP
Cost recognized in net income	11,420	11,003

Unrecognized Share-based Compensation Cost

	September 30, 2022		December 31, 2021	
	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
	EDIP	16,129	3.39	4,896
ELTIP				
Time vesting shares	—	0.00	17	0.12
Performance vesting shares	12,150	1.91	8,840	1.76
Total unrecognized expense	28,279		13,753	

Note 19: Share buy-back plans

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 Buy-Back Program

On December 6, 2018, the Board approved, with effect from December 10, 2018 to February 29, 2020, a common share repurchase program, authorizing the purchase of up to 2.5 million common shares.

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.

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

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 new common share repurchase program, authorizing the purchase of up to 2.0 million common shares through to February 28, 2023.

In the nine months ended September 30, 2022, the Bank repurchased and retired 102,000 shares.

	Nine months ended	Year ended December 31	
	September 30, 2022	2021	2020
Common share buy-backs			
Acquired number of shares (to the nearest 1)	102,000	534,828	3,452,000
Average cost per common share	38.21	36.93	25.10
Total cost (in US dollars)	3,897,268	19,753,336	86,639,889

Note 20: Accumulated other comprehensive income (loss)

	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	
Nine months ended September 30, 2022							
Balance at beginning of period	(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)
Balance at end of period	(29,301)	(93,769)	(240,183)	(53,494)	(24,237)	(77,731)	(440,984)

	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	
Nine months ended September 30, 2021							
Balance at beginning of period	(21,065)	(60)	72,779	(72,255)	(29,079)	(101,334)	(49,680)
Other comprehensive income (loss), net of taxes	226	165	(67,542)	2,315	1,652	3,967	(63,184)
Balance at end of period	(20,839)	105	5,237	(69,940)	(27,427)	(97,367)	(112,864)

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		Three months ended		Nine months ended	
		September 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Line item in the consolidated statements of operations, if any					
Net unrealized gains (losses) on translation of net investment in foreign operations adjustments					
Foreign currency translation adjustments	N/A	(27,752)	(8,409)	(63,463)	(4,453)
Gains (losses) on net investment hedge	N/A	23,447	7,742	55,075	4,679
Net change		(4,305)	(667)	(8,388)	226
Held-to-maturity investment adjustments					
Net unamortized gains (losses) transferred from AFS	N/A	—	—	(99,143)	—
Amortization of net gains (losses) to net income	Interest income on investments	3,080	18	5,283	165
Net change		3,080	18	(93,860)	165
Available-for-sale investment adjustments					
Gross unrealized gains (losses)	N/A	(90,801)	(12,365)	(322,409)	(67,741)
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	—	239	—	239
Foreign currency translation adjustments of related balances	N/A	2,709	76	5,065	(40)
Net change		(88,092)	(12,050)	(218,201)	(67,542)
Employee benefit plans adjustments					
Defined benefit pension plan					
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	552	691	1,666	2,077
Amortization of prior service (credit) cost	Non-service employee benefits expense	19	7	63	(41)
Foreign currency translation adjustments of related balances	N/A	693	471	1,632	279
Net change		1,281	1,169	2,906	2,315
Post-retirement healthcare plan					
Amortization of net actuarial (gains) losses	Non-service employee benefits expense	361	419	1,083	1,259
Amortization of prior service (credit) cost	Non-service employee benefits expense	131	131	393	393
Net change		492	550	1,476	1,652
Other comprehensive income (loss), net of taxes		(87,544)	(10,980)	(316,067)	(63,184)

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.

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

Dividends Declared

During the nine months ended September 30, 2022, the Bank declared and paid cash dividends of \$1.32 (September 30, 2021: \$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.

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, 2022 and December 31, 2021. The following table sets forth the Bank's capital adequacy in accordance with the Basel III framework:

	September 30, 2022		December 31, 2021	
	Actual	Regulatory minimum	Actual	Regulatory minimum
Capital				
CET 1 capital	902,989	N/A	896,263	N/A
Tier 1 capital	902,989	N/A	896,263	N/A
Tier 2 capital	183,392	N/A	183,998	N/A
Total capital	1,086,381	N/A	1,080,261	N/A
Risk Weighted Assets	4,779,758	N/A	5,101,474	N/A
Leverage Ratio Exposure Measure	14,206,775	N/A	15,921,624	N/A
Capital Ratios (%)				
CET 1 capital	18.9 %	10.0 %	17.6 %	10.0 %
Tier 1 capital	18.9 %	11.5 %	17.6 %	11.5 %
Total capital	22.7 %	13.5 %	21.2 %	13.5 %
Leverage ratio	6.4 %	5.0 %	5.6 %	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 loans, and/or are guarantors for loans and deposits 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, 2022 and December 31, 2021. 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:

Balance at December 31, 2020	42,391
Net loans issued (repaid) during the year	(40,448)
Effect of changes in the composition of related parties	5,432
Balance at December 31, 2021	7,375
Net loans issued (repaid) during the period	(2,409)
Effect of changes in the composition of related parties	18,380
Balance at September 30, 2022	23,346

Consolidated balance sheets	September 30, 2022	December 31, 2021
Deposits	33,186	21,683

Consolidated statement of operations	Three months ended		Nine months ended	
	September 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Interest and fees on loans	280	80	606	1,306
Total non-interest expense	47	—	173	—

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:

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

Consolidated balance sheets	September 30, 2022	December 31, 2021
Loans	10,274	10,489
Deposits	169	441

Consolidated statement of operations	Three months ended		Nine months ended	
	September 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Interest and fees on loans	178	149	477	472
Other gains/losses	—	—	—	99
Total non-interest expense	284	345	1,025	1,025
Other non-interest income	58	—	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, 2022, 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.

Consolidated balance sheets	September 30, 2022	December 31, 2021
Loans	10	—
Deposits	37,694	22,346

Consolidated statement of operations	Three months ended		Nine months ended	
	September 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Asset management	2,252	1,334	5,338	2,641
Custody and other administration services	268	125	577	506
Other non-interest income	—	—	—	6

Note 23: Subsequent events

On October 31, 2022, the Board of Directors declared an interim dividend of \$0.44 per common share to be paid on November 28, 2022 to shareholders of record on November 14, 2022.