

FINANCIAL REPORT FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2020
THE BANK OF N.T. BUTTERFIELD & SON LIMITED



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

	As at	
	September 30, 2020	December 31, 2019
Assets		
Cash and demand deposits with banks - Non-interest bearing	93,952	88,031
Demand deposits with banks - Interest bearing	534,252	839,320
Cash equivalents - Interest bearing	1,532,699	1,622,719
Cash due from banks	2,160,903	2,550,070
Securities purchased under agreements to resell	326,877	142,283
Short-term investments	806,607	1,218,380
Investment in securities		
Equity securities at fair value	7,559	7,419
Available-for-sale at fair value	2,369,713	2,220,341
Held-to-maturity (fair value: \$2,457,933 (2019: \$2,255,987))	2,347,341	2,208,663
Total investment in securities	4,724,613	4,436,423
Loans		
Loans	5,076,383	5,166,210
Allowance for credit losses	(41,046)	(23,588)
Loans, net of allowance for credit losses	5,035,337	5,142,622
Premises, equipment and computer software, net of accumulated depreciation	157,085	158,233
Goodwill	24,269	24,838
Other Intangible assets, net	66,417	71,665
Equity method investments	13,042	14,480
Other real estate owned, net	4,227	3,842
Accrued interest and other assets	141,368	158,739
Total assets	13,460,745	13,921,575
Liabilities		
Deposits		
Non-interest bearing	2,610,225	2,238,256
Interest bearing	9,280,893	10,203,369
Total deposits	11,891,118	12,441,625
Employee benefit plans	109,817	110,347
Accrued interest and other liabilities	274,542	262,360
Total other liabilities	384,359	372,707
Long-term debt	196,359	143,500
Total liabilities	12,471,835	12,957,832
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: 50,107,614 (2019: 53,005,177)	501	530
Additional paid-in capital	1,012,902	1,081,569
Retained earnings (Accumulated deficit)	14,628	(9,237)
Less: treasury common shares, at cost: 619,212 (2019: 619,212)	(15,352)	(22,022)
Accumulated other comprehensive loss	(23,769)	(87,097)
Total shareholders' equity	988,910	963,743
Total liabilities and shareholders' equity	13,460,745	13,921,575

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, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Non-interest income				
Asset management	6,804	7,370	21,988	20,961
Banking	13,352	12,130	33,710	35,351
Foreign exchange revenue	9,021	10,026	27,890	27,155
Trust	12,907	12,698	37,393	38,269
Custody and other administration services	3,550	3,645	10,415	9,392
Other non-interest income	1,243	777	4,701	3,137
Total non-interest income	46,877	46,646	136,097	134,265
Interest income				
Interest and fees on loans	56,379	59,629	174,505	173,083
<i>Investments (none of the investment securities are intrinsically tax-exempt)</i>				
Available-for-sale	11,196	15,429	38,968	45,998
Held-to-maturity	13,780	17,444	45,099	51,767
Deposits with banks	1,003	12,532	11,499	30,709
Total interest income	82,358	105,034	270,071	301,557
Interest expense				
Deposits	4,306	16,747	21,378	36,130
Long-term debt	2,739	1,959	6,674	5,965
Total interest expense	7,045	18,706	28,052	42,095
Net interest income before provision for credit losses	75,313	86,328	242,019	259,462
Provision for credit recoveries (losses)	(1,355)	(411)	(10,891)	552
Net interest income after provision for credit losses	73,958	85,917	231,128	260,014
Net gains (losses) on equity securities	200	54	139	710
Net realized gains (losses) on available-for-sale investments	1,116	537	1,116	1,509
Net gains (losses) on other real estate owned	—	(67)	71	61
Net other gains (losses)	196	(1)	290	187
Total other gains (losses)	1,512	523	1,616	2,467
Total net revenue	122,347	133,086	368,841	396,746
Non-interest expense				
Salaries and other employee benefits	48,306	44,272	132,902	136,503
Technology and communications	16,345	16,320	49,021	46,119
Professional and outside services	5,202	9,473	15,990	21,272
Property	7,543	6,060	22,032	17,169
Indirect taxes	5,764	5,296	16,188	15,839
Non-service employee benefits expense	509	1,339	1,988	3,999
Marketing	630	1,580	2,880	4,915
Amortization of intangible assets	1,468	1,494	4,339	3,997
Other expenses	5,495	4,577	16,037	13,213
Total non-interest expense	91,262	90,411	261,377	263,026
Net income before income taxes	31,085	42,675	107,464	133,720
Income tax benefit (expense)	(542)	(238)	(2,310)	(534)
Net income	30,543	42,437	105,154	133,186
Earnings per common share				
Basic earnings per share	0.61	0.80	2.07	2.50
Diluted earnings per share	0.61	0.79	2.06	2.48

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, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Net income	30,543	42,437	105,154	133,186
Other comprehensive income (loss), net of taxes				
Net change in unrealized gains and losses on translation of net investment in foreign operations	528	(1,345)	(969)	(1,608)
Accretion of net unrealized gains and losses on held-to-maturity investments transferred from available-for-sale investments	228	12	397	38
Net change in unrealized gains and losses on available-for-sale investments	2,788	13,528	60,800	57,597
Employee benefit plans adjustments	471	1,211	3,100	2,827
Other comprehensive income (loss), net of taxes	4,015	13,406	63,328	58,854
Total comprehensive income	34,558	55,843	168,482	192,040

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, 2020		September 30, 2019		September 30, 2020		September 30, 2019	
	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	50,822,338	508	54,606,982	546	53,005,177	530	55,359,218	554
Retirement of shares	(741,700)	(7)	(1,000,000)	(10)	(3,249,200)	(32)	(2,120,000)	(21)
Issuance of common shares	26,976	—	181,072	2	351,637	3	548,836	5
Balance at end of period	50,107,614	501	53,788,054	538	50,107,614	501	53,788,054	538
Additional paid-in capital								
Balance at beginning of period		1,019,859		1,140,393		1,081,569		1,171,435
Share-based compensation		3,978		3,358		11,331		13,906
Share-based settlements		630		—		630		240
Retirement of shares		(11,565)		(37,245)		(81,123)		(79,082)
Issuance of common shares, net of underwriting discounts and commissions		—		45		495		52
Balance at end of period		1,012,902		1,106,551		1,012,902		1,106,551
Retained earnings (Accumulated deficit)								
Balance at beginning of period		12,250		(48,855)		(9,237)		(92,676)
Cumulative effect from change in accounting policy (Note 2)		—		—		(7,841)		—
Net income for period		30,543		42,437		105,154		133,186
Common share cash dividends declared and paid, \$0.44 and \$1.32 per share (2019: \$0.44 and \$1.32 per share)		(21,879)		(23,375)		(67,162)		(70,303)
Retirement of shares		(6,286)		—		(6,286)		—
Balance at end of period		14,628		(29,793)		14,628		(29,793)
Treasury common shares								
Balance at beginning of period	619,212	(14,517)	1,619,212	(60,324)	619,212	(22,022)	1,254,212	(48,443)
Purchase of treasury common shares	741,700	(18,693)	—	—	3,249,200	(80,771)	1,485,000	(53,729)
Retirement of shares	(741,700)	17,858	(1,000,000)	37,255	(3,249,200)	87,441	(2,120,000)	79,103
Balance at end of period	619,212	(15,352)	619,212	(23,069)	619,212	(15,352)	619,212	(23,069)
Accumulated other comprehensive income (loss)								
Balance at beginning of period		(27,784)		(103,079)		(87,097)		(148,527)
Other comprehensive income (loss), net of taxes		4,015		13,406		63,328		58,854
Balance at end of period		(23,769)		(89,673)		(23,769)		(89,673)
Total shareholders' equity		988,910		964,554		988,910		964,554

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, 2020	September 30, 2019
Cash flows from operating activities		
Net income	105,154	133,186
Adjustments to reconcile net income to operating cash flows		
Depreciation and amortization	45,127	35,337
Provision for credit (recoveries) losses	10,891	(552)
Share-based payments and settlements	11,961	14,146
Net change in equity securities at fair value	(139)	(710)
Net realized (gains) losses on available-for-sale investments	(1,116)	(1,509)
Net (gains) losses on other real estate owned	(71)	(61)
(Increase) decrease in carrying value of equity method investments	(1,374)	(314)
Dividends received from equity method investments	2,812	495
Changes in operating assets and liabilities		
(Increase) decrease in accrued interest receivable and other assets	15,814	(1,135)
Increase (decrease) in employee benefit plans, accrued interest payable and other liabilities	(35,644)	121,099
Cash provided by (used in) operating activities	153,415	299,982
Cash flows from investing activities		
(Increase) decrease in securities purchased under agreements to resell	(184,594)	(34,580)
Short-term investments other than restricted cash: proceeds from maturities and sales	1,695,099	233,928
Short-term investments other than restricted cash: purchases	(1,311,306)	(974,828)
Available-for-sale investments: proceeds from sale	349,699	189,940
Available-for-sale investments: proceeds from maturities and pay downs	401,858	249,440
Available-for-sale investments: purchases	(796,758)	(563,007)
Held-to-maturity investments: proceeds from maturities and pay downs	372,398	184,374
Held-to-maturity investments: purchases	(518,356)	(420,018)
Net (increase) decrease in loans	32,503	(26,064)
Additions to premises, equipment and computer software	(20,910)	(16,351)
Proceeds from sale of other real estate owned	—	1,102
Gross cash received (disbursed for) from business acquisition	—	2,815,752
Cash provided by (used in) investing activities	19,633	1,639,688
Cash flows from financing activities		
Net increase (decrease) in deposits	(448,926)	(154,754)
Issuance of subordinated capital, net of underwriting fees	97,647	—
Repayment of long-term debt	(45,000)	—
Common shares repurchased	(80,771)	(53,729)
Proceeds from stock option exercises	498	57
Cash dividends paid on common shares	(67,162)	(70,303)
Cash provided by (used in) financing activities	(543,714)	(278,729)
Net effect of exchange rates on cash, cash equivalents and restricted cash	(22,696)	(106,812)
Net increase (decrease) in cash, cash equivalents and restricted cash	(393,362)	1,554,129
Cash, cash equivalents and restricted cash: beginning of period	2,578,902	2,070,120
Cash, cash equivalents and restricted cash: end of period	2,185,540	3,624,249
Components of cash, cash equivalents and restricted cash at end of period		
Cash due from banks	2,160,903	3,605,048
Restricted cash included in short-term investments on the consolidated balance sheets	24,637	19,201
Total cash, cash equivalents and restricted cash at end of period	2,185,540	3,624,249
Supplemental disclosure of non-cash items		
Transfer to (out of) other real estate owned	314	(397)
Initial recognition of right-of-use assets and operating lease liabilities	—	22,370
Reduction in net loans due to initial adoption of a current expected credit loss model	7,841	—

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

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, 2019.

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 payments
- Business combinations

New Accounting Standards

Accounting for Financial Instruments - Credit losses

Starting on January 1, 2020 the Bank adopted Accounting Standards Update ("ASU") 2016-13 Financial Instruments – Credit Losses (Topic 326). Accordingly, from the date of adoption, the Bank uses a current expected credit loss model ("CECL") which is based on expected losses. The model used by the Bank up to December 31, 2019 to estimate credit losses was based on incurred losses. The CECL model is applied by the Bank to the measurement of credit losses on financial instruments at amortized cost, including loan receivables and held-to-maturity ("HTM") debt securities. The Bank also applies the CECL model to certain off-balance sheet credit exposures such as undrawn loan commitments, standby letters of credit, financial guarantees, and other similar instruments. In line with Topic 326, the Bank will present credit losses on available-for-sale ("AFS") securities as a valuation allowance rather than as a direct write-down. Changes in expected credit losses are recorded through the respective credit loss allowances on the consolidated balance sheets as well as in the provision for credit losses (or recoveries) in the consolidated statements of operations.

The Bank's purchased credit-impaired ("PCI") loans outstanding as at January 1, 2020 are now classified as purchased credit deteriorated ("PCD") loans and both the amortized cost and an allowance for expected credit losses are disclosed and included with other non-PCD loans' figures. The Bank will continue to recognize the amortization of the noncredit discount, if any, as interest income based on the yield of such assets.

The Bank has not restated comparative information previously accounted for under the incurred loss and the PCI models. The total adjustment resulting from the adoption of this methodology on the opening balance of the Bank's accumulated deficit as at January 1, 2020 was a negative adjustment of \$7.8 million relating to the Bank's loan portfolio.

Under the CECL model, the Bank collects and maintains attributes as they relate to its financial instruments that are within scope of CECL including fair value of collateral, expected performance over the lifetime of the instruments and reasonable and supportable assumptions about future economic conditions. The Bank's measurement of expected losses takes into account historical loss information and is primarily based on the product of: the respective instrument's probability of default ("PD"), loss given default ("LGD") and exposure at default ("EAD"). For AFS securities, any allowance for credit losses is based on an impairment assessment.

The Bank made the accounting policy election to write off accrued interest receivable on loans that are placed on non-accrual status by reversing the then accrued interest balance against interest income revenue.

Allowance for Current Expected Credit Losses

The Bank maintains allowances for credit losses, which in management's opinion is adequate to absorb all estimated credit-related losses that are expected in its lending and off-balance sheet credit-related arrangements at the balance sheet date.

Management measures expected credit losses on **held-to-maturity** and **available-for-sale debt securities** on a collective basis by major security type when similar risk characteristics exist, or failing that, on an individual basis.

For **available-for-sale debt securities** in an unrealized loss position, the Bank first assesses whether it intends to sell, or it is more likely than not that it will be required to sell the security before recovery of its amortized cost basis. If either of the criteria regarding intent or requirement to sell is met, the security's amortized cost basis is written down to fair value through income. For debt securities available-for-sale that do not meet the aforementioned criteria, the Bank evaluates whether the decline in fair value has resulted

from credit losses or other factors. In making this assessment, management considers the extent to which fair value is less than amortized cost, any changes to the rating of the security by a rating agency, and adverse conditions specifically related to the security, among other factors. If this assessment indicates that a credit loss exists, the present value of cash flows expected to be collected from the security are compared to the amortized cost basis of the security. If the present value of cash flows expected to be collected is less than the amortized cost basis, a credit loss exists and an allowance for credit losses is recorded for the credit loss, limited by the amount that the fair value is less than the amortized cost basis. Any impairment that has not been recorded through an allowance for credit losses is recognized in other comprehensive income.

Losses are charged against the allowance when management believes the uncollectibility of an available-for-sale security is confirmed or when either of the criteria regarding intent or requirement to sell is met.

The allowance for credit losses on **loans** is a valuation account that is deducted from the loans' amortized cost basis to present the net amount expected to be collected on the loans. Loans are charged off against the allowance when management believes the uncollectibility of a loan balance is confirmed. Expected recoveries do not exceed the aggregate of amounts previously charged-off and expected to be charged-off.

Management estimates the allowance balance using relevant available information, from internal and external sources, relating to past events, current conditions, and reasonable and supportable forecasts. Historical credit loss experience provides the basis for the estimation of expected credit losses. Adjustments to historical loss information are made for differences in the current-loan specific risk characteristics such as differences in underwriting practices, vintage, portfolio mix, delinquency level, term as well as changes in environmental conditions, such as changes in macroeconomic factors and collateral values for periods beyond the reasonable and supportable forecast period.

The allowance for credit losses is measured on a collective pool basis when similar risk characteristics exist. The Bank has identified the following portfolio segments: Residential mortgages, Consumers loans (including overdrafts), Commercial loans, Commercial overdrafts, Commercial real estate loans and Credit cards. For Loans and overdrafts, Management uses a probability of default and loss-given-default model to estimate the allowance for credit losses and a loss-rate. Loans that do not share risk characteristics are evaluated on an individual basis. Loans evaluated individually are not also included in the collective evaluation. For Credit cards, Management uses a loss rate to estimate expected credit losses.

Expected credit losses are estimated over the contractual term of the loans. The contractual term excludes potential extensions, renewals and modifications unless management has a reasonable expectation at the reporting date that the extension or renewal options included in the original contract will occur or that a troubled debt restructuring will be executed. Credit card receivables do not have stated maturities, therefore establishing a contractual term is performed by using analytical approximation behavior.

New Accounting Pronouncements

The following accounting developments were issued during the nine months ended September 30, 2020 or are accounting standards pending adoption:

In January 2020, the Financial Accounting Standards Board ("FASB") published ASU 2020-01-Investments-Equity Securities (Topic 321), Investments-Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815)-Clarifying the Interactions between Topic 321, Topic 323, and Topic 815 (a consensus of the Emerging Issues Task Force). For public business entities, the amendments in this update are effective for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. Early adoption is permitted, including early adoption in an interim period for public business entities for periods for which financial statements have not yet been issued. The Bank does not anticipate this ASU to have a material impact.

In February 2020, the FASB published ASU 2020-02- Financial Instrument - Credit Losses (Topic 326) and Leases (Topic 842). Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 119 and Update to SEC Section on Effective Date Related to Accounting Standards Update No. 2016-02, Leases (Topic 842) (SEC Update). The amendments are effective immediately. The Bank has considered the provisions of these ASUs in its accounting processes and financial statement presentation.

In March 2020, the FASB published ASU 2020-03-Codification Improvements to Financial Instruments. Issue 1: Fair value option Disclosures. The amendments clarify that all entities are required to provide the fair value option disclosures in par 825-10-50-24 through 50-32. Issue 2: Applicability of Portfolio Exception in Topic 820 to Nonfinancial Items. Paragraph 820-10-35-2(g) and 820-10-35-18L are amended to include the phrase nonfinancial items accounted for as derivatives under Topic 815 to be consistent with the previous amendments to Section 820-10-35 that were made by Accounting Standards Update No. 2018-09, Codification Improvements. Issue 3: Disclosures for Depository and Lending Institutions. The amendments clarify that the disclosure requirements in Topic 320 apply to the disclosure requirements in Topic 942 for depository and lending institutions. Issue 4: Cross-reference to Line-of-credit or revolving-Debt arrangements Guidance in Subtopic 470-50. The amendments improve the understandability of the guidance. Issue 5: Cross-reference to Net Asset Value Practical Expedient in Subtopic 820-10. The amendments improve the understandability of the guidance. Issue 6: Interaction of Topic 842 and Topic 326. The amendments clarify that the contractual term of a net investment in a lease determined in accordance with Topic 842 should be the contractual term used to measure expected credit losses under Topic 326. Issue 7: Interaction of Topic 326 and Subtopic 860-20. The amendments to Subtopic 860-20, Transfers and Servicing - Sales of Financial Assets, clarify that when an entity regains control of financial assets sold, an allowance for credit losses should be recorded in accordance with Topic 326. The amendments related to Issue 1, Issue 2, Issue 4, and Issue 5 are conforming amendments. For public business entities, the amendments are effective upon issuance of this final update. The amendment related to Issue 3 is a conforming amendment that affects the guidance in the amendments in Accounting Standards Update 2019-04, Codification Improvements to Topic 326, Financial Instruments-Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments. That guidance relates to the amendments in 2016-01, Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities. The effective date of Update 2019-04 for the amendments to Update 2016-01 is for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. For amendments to Issues 6 and 7, for entities that have adopted the guidance in Update 2016-13, the amendments are effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The amendments should be applied on a modified-retrospective basis by means of a cumulative-effect adjustment to opening retained earnings in the statement of financial position as of the date that an entity adopted the amendments in Update 2016-13. The Bank has evaluated the impact of this ASU and included it in the current period presentation.

In March 2020, the FASB published ASU 2020-04-Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting. The amendments in this update provide optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions affected by reference rate reform if certain criteria are met. The amendments in this update apply only to contracts, hedging relationships, and other transactions that reference London Inter Bank Offer Rate ("LIBOR") or another reference rate expected to be discontinued because of reference rate reform. The expedients and exceptions provided by the amendments do not apply to contract modifications made and hedging relationships. The amendments in this update are effective for all entities upon issuance (March 12, 2020) through December 31, 2022. The Bank does not anticipate this ASU to have a material impact.

In August 2020, the FASB published ASU 2020-06-Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity. The Board issued this Update to address issues identified as a result of the complexity associated with applying GAAP for certain financial instruments with characteristics of liabilities and equity. Complexity associated with the accounting is a significant contributing factor to numerous financial statement restatements and results in complexity for users attempting to understand the results of applying the current

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

guidance. In addressing the complexity, the Board focused on amending the guidance on convertible instruments and the guidance on the derivatives scope exception for contracts in an entity's own equity. The amendments in this update are effective for (1) SEC filers, excluding smaller reporting companies ("SRCs"): fiscal years beginning after December 15, 2021, and interim periods within those fiscal years; (2) SRCs: Fiscal years beginning after December 15, 2023, and interim periods within those fiscal years. The Bank does not anticipate this ASU to have a material impact.

Note 3: Cash due from banks

	September 30, 2020	December 31, 2019
Non-interest bearing		
Cash and demand deposits with banks	93,952	88,031
Interest bearing¹		
Demand deposits with banks	534,252	839,320
Cash equivalents	1,532,699	1,622,719
Sub-total - Interest bearing	2,066,951	2,462,039
Total cash due from banks	2,160,903	2,550,070

¹ Interest bearing cash due from banks includes certain demand deposits with banks as at September 30, 2020 in the amount of \$197.1 million (December 31, 2019: \$439.5 million) that are earning interest at a negligible rate.

Note 4: Short-term investments

	September 30, 2020	December 31, 2019
Unrestricted		
Maturing within three months	517,273	594,749
Maturing between three to six months	257,527	591,212
Maturing between six to twelve months	7,170	2,584
Total unrestricted short-term investments	781,970	1,188,545
Affected by drawing restrictions related to minimum reserve and derivative margin requirements		
Non-interest earning demand deposits	999	2,270
Interest earning demand and term deposits	23,638	27,565
Total restricted short-term investments	24,637	29,835
Total short-term investments	806,607	1,218,380

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, 2020				December 31, 2019			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Equity securities								
Mutual funds	5,724	2,309	(474)	7,559	5,724	2,142	(447)	7,419
Total equity securities	5,724	2,309	(474)	7,559	5,724	2,142	(447)	7,419
Available-for-sale								
US government and federal agencies	2,179,373	71,630	(791)	2,250,212	2,040,171	18,617	(6,342)	2,052,446
Non-US governments debt securities	26,139	57	(388)	25,808	26,118	82	(524)	25,676
Asset-backed securities - Student loans	13,290	—	(381)	12,909	13,290	—	(399)	12,891
Residential mortgage-backed securities	78,301	2,488	(5)	80,784	128,952	654	(278)	129,328
Total available-for-sale	2,297,103	74,175	(1,565)	2,369,713	2,208,531	19,353	(7,543)	2,220,341
Held-to-maturity¹								
US government and federal agencies	2,347,341	110,726	(134)	2,457,933	2,208,663	47,814	(490)	2,255,987
Total held-to-maturity	2,347,341	110,726	(134)	2,457,933	2,208,663	47,814	(490)	2,255,987

¹ For the nine months ended September 30, 2020, and the nine months ended September 30, 2019, impairments recognized in other comprehensive loss for HTM investments were nil.

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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, 2020 comprising 17 securities representing 18.1% of the AFS portfolios' carrying value (December 31, 2019: 62 and 40.7%), represent credit losses. Total gross unrealized AFS losses were 0.4% of the fair value of the affected securities (December 31, 2019: 0.8%).

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, 2020, were comprised of 2 securities representing 1.2% of the HTM portfolios' carrying value (December 31, 2019: 6 and 4.3%). Total gross unrealized HTM losses were 0.5% of the fair value of affected securities (December 31, 2019: 0.5%).

Management does not intend to sell and it is likely that management will not be required to sell the securities prior to their anticipated recovery. 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** relate to 2 securities (December 31, 2019: 7) 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 24% - 25% and 58% - 61%, 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>			
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
September 30, 2020						
Available-for-sale securities with unrealized losses						
US government and federal agencies	389,462	(791)	—	—	389,462	(791)
Non-US governments debt securities	201	(2)	22,392	(386)	22,593	(388)
Asset-backed securities - Student loans	—	—	12,909	(381)	12,909	(381)
Residential mortgage-backed securities	1,086	—	3,954	(5)	5,040	(5)
Total available-for-sale securities with unrealized losses	390,749	(793)	39,255	(772)	430,004	(1,565)
Held-to-maturity securities with unrealized losses						
US government and federal agencies	28,670	(134)	—	—	28,670	(134)

	<u>Less than 12 months</u>		<u>12 months or more</u>			
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
December 31, 2019						
Available-for-sale securities with unrealized losses						
US government and federal agencies	376,262	(1,786)	435,999	(4,556)	812,261	(6,342)
Non-US governments debt securities	202	(1)	22,246	(523)	22,448	(524)
Asset-backed securities - Student loans	—	—	12,891	(399)	12,891	(399)
Residential mortgage-backed securities	6,038	(30)	50,254	(248)	56,292	(278)
Total available-for-sale securities with unrealized losses	382,502	(1,817)	521,390	(5,726)	903,892	(7,543)
Held-to-maturity securities with unrealized losses						
US government and federal agencies	47,038	(214)	46,411	(276)	93,449	(490)

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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.

	Remaining term to maturity					Carrying amount
	Within 3 months	3 to 12 months	1 to 5 years	5 to 10 years	No specific or single maturity	
September 30, 2020						
Equity securities						
Mutual funds	—	—	—	—	7,559	7,559
Available-for-sale						
US government and federal agencies	—	—	—	—	2,250,212	2,250,212
Non-US governments debt securities	—	201	22,392	3,215	—	25,808
Asset-backed securities - Student loans	—	—	—	—	12,909	12,909
Residential mortgage-backed securities	—	—	—	—	80,784	80,784
Total available-for-sale	—	201	22,392	3,215	2,343,905	2,369,713
Held-to-maturity						
US government and federal agencies	—	—	—	—	2,347,341	2,347,341
Total investments	—	201	22,392	3,215	4,698,805	4,724,613
Total by currency						
US dollars	—	201	22,392	3,215	4,698,555	4,724,363
Other	—	—	—	—	250	250
Total investments	—	201	22,392	3,215	4,698,805	4,724,613

Pledged Investments

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

	September 30, 2020		December 31, 2019	
	Amortized cost	Fair value	Amortized cost	Fair value
Pledged Investments				
Available-for-sale	1,292	1,354	3,848	3,912
Held-to-maturity	2,569	2,730	5,449	5,552

Sale Proceeds and Realized Gains and Losses of AFS Securities

	September 30, 2020			September 30, 2019		
	Sale proceeds	Gross realized gains	Gross realized (losses)	Sale proceeds	Gross realized gains	Gross realized (losses)
US government and federal agencies	349,699	1,171	(55)	—	—	—
Corporate debt securities	—	—	—	64,787	49	(141)
Commercial mortgage-backed securities	—	—	—	124,545	901	(272)
Pass-through note	—	—	—	972	972	—
Total	349,699	1,171	(55)	190,304	1,922	(413)

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, 2020 is 4.21% (December 31, 2019: 4.73%). The interest receivable on total loans as at September 30, 2020 is \$8.9 million (December 31, 2019: \$9.2 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 protected and still performing (current with respect to interest and principal payments), but are potentially weak and present an undue credit risk exposure, but not to the point of justifying a classification of substandard.

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

A **non-accrual** loan shall mean either management is of the opinion full payment of principal or interest is in doubt or when principal or interest is 90 days past due and for residential mortgage loans which are not well secured and in the process of collection. 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, 2020	Pass	Special mention	Substandard	Non-accrual	Total amortized cost	Allowance for expected credit losses	Total net loans
Commercial loans							
Government	273,764	—	—	—	273,764	(1,594)	272,170
Commercial and industrial	418,672	44,472	914	18,236	482,294	(14,367)	467,927
Commercial overdrafts	56,055	3,741	433	3	60,232	(351)	59,881
Total commercial loans	748,491	48,213	1,346	18,239	816,290	(16,312)	799,978
Commercial real estate loans							
Commercial mortgage	609,377	83,011	2,352	4,917	699,657	(1,064)	698,593
Construction	10,421	37,090	—	—	47,511	(1,183)	46,328
Total commercial real estate loans	619,798	120,101	2,352	4,917	747,168	(2,247)	744,921
Consumer loans							
Automobile financing	22,316	60	—	128	22,504	(119)	22,385
Credit card	66,899	—	400	—	67,299	(3,437)	63,862
Overdrafts	18,477	1,688	—	4	20,169	(315)	19,854
Other consumer ¹	113,403	1,122	153	1,032	115,710	(1,372)	114,338
Total consumer loans	221,095	2,870	553	1,165	225,682	(5,243)	220,439
Residential mortgage loans	3,081,736	74,022	81,008	50,477	3,287,243	(17,244)	3,269,999
Total	4,671,120	245,206	85,259	74,798	5,076,383	(41,046)	5,035,337

¹ Other consumer loans' amortized cost comprises \$56 million of cash and portfolio secured lending and \$44 million of lending secured by buildings in construction or other collateral.

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December 31, 2019						Evaluation of gross loans for impairment			
	Pass	Special mention	Substandard	Non-accrual	Total amortized cost	General and specific allowances	Total net loans	Individually evaluated	Collectively evaluated
Commercial loans									
Government	370,753	—	—	—	370,753	—	370,753	—	370,753
Commercial and industrial	469,591	57,438	1,119	7,567	535,715	(7,195)	528,520	48,386	487,329
Commercial overdrafts	23,529	4,565	451	2	28,547	(86)	28,461	2	28,545
Total commercial loans	863,873	62,003	1,570	7,569	935,015	(7,281)	927,734	48,388	886,627
Commercial real estate loans									
Commercial mortgage	581,450	71,638	2,955	3,250	659,293	(1,496)	657,797	9,871	649,422
Construction	91,812	—	3,128	—	94,940	—	94,940	3,128	91,812
Total commercial real estate loans	673,262	71,638	6,083	3,250	754,233	(1,496)	752,737	12,999	741,234
Consumer loans									
Automobile financing	21,229	78	—	155	21,462	(102)	21,360	155	21,307
Credit card	87,250	—	424	—	87,674	(445)	87,229	—	87,674
Overdrafts	5,270	2,504	50	34	7,858	(28)	7,830	34	7,824
Other consumer ¹	135,534	3,550	—	1,063	140,147	(927)	139,220	1,070	139,077
Total consumer loans	249,283	6,132	474	1,252	257,141	(1,502)	255,639	1,259	255,882
Residential mortgage loans	3,019,105	80,135	82,251	38,330	3,219,821	(13,309)	3,206,512	115,535	3,104,285
Total	4,805,523	219,908	90,378	50,401	5,166,210	(23,588)	5,142,622	178,181	4,988,028

¹ Other consumer loans' amortized cost comprises \$74 million of cash and portfolio secured lending and \$48 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, 2020	Pass	Special mention	Substandard	Non-accrual	Total amortized cost
Loans by origination year					
2020	441,383	13,535	—	50	454,968
2019	1,059,601	27,918	—	—	1,087,519
2018	696,529	67,051	571	1,379	765,530
2017	627,705	31,616	2,748	11,913	673,982
2016	432,581	16,539	8,062	3,991	461,173
Prior	1,244,924	81,838	73,045	55,326	1,455,133
Overdrafts and credit cards	168,397	6,709	833	2,139	178,078
Total amortized cost	4,671,120	245,206	85,259	74,798	5,076,383

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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, 2020	30 - 59 days	60 - 89 days	More than 90 days	Total past due loans	Total current	Total amortized cost
Commercial loans						
Government	—	—	—	—	273,764	273,764
Commercial and industrial	1,416	—	18,186	19,602	462,692	482,294
Commercial overdrafts	—	—	3	3	60,229	60,232
Total commercial loans	1,416	—	18,189	19,605	796,685	816,290
Commercial real estate loans						
Commercial mortgage	1,951	2,066	4,403	8,420	691,237	699,657
Construction	—	—	—	—	47,511	47,511
Total commercial real estate loans	1,951	2,066	4,403	8,420	738,748	747,168
Consumer loans						
Automobile financing	—	19	126	145	22,359	22,504
Credit card	463	237	400	1,100	66,199	67,299
Overdrafts	—	—	4	4	20,165	20,169
Other consumer	262	83	1,027	1,372	114,338	115,710
Total consumer loans	725	339	1,557	2,621	223,061	225,682
Residential mortgage loans	5,943	3,397	63,933	73,273	3,213,970	3,287,243
Total amortized cost	10,035	5,802	88,082	103,919	4,972,464	5,076,383

December 31, 2019	30 - 59 days	60 - 89 days	More than 90 days	Total past due loans	Total current	Total amortized cost
Commercial loans						
Government	—	—	—	—	370,753	370,753
Commercial and industrial	276	—	7,487	7,763	527,952	535,715
Commercial overdrafts	—	—	2	2	28,545	28,547
Total commercial loans	276	—	7,489	7,765	927,250	935,015
Commercial real estate loans						
Commercial mortgage	445	—	3,250	3,695	655,598	659,293
Construction	—	—	3,128	3,128	91,812	94,940
Total commercial real estate loans	445	—	6,378	6,823	747,410	754,233
Consumer loans						
Automobile financing	53	58	135	246	21,216	21,462
Credit card	630	221	424	1,275	86,399	87,674
Overdrafts	—	—	34	34	7,824	7,858
Other consumer	994	139	1,028	2,161	137,986	140,147
Total consumer loans	1,677	418	1,621	3,716	253,425	257,141
Residential mortgage loans	31,931	9,487	47,132	88,550	3,131,271	3,219,821
Total amortized cost	34,329	9,905	62,620	106,854	5,059,356	5,166,210

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Changes in Allowances For Credit Losses

The increase in the provision for credit losses during the nine months ended September 30, 2020 was primarily attributable to changes in macroeconomic factors, such as GDP forecasts, and changes in the credit ratings of some commercial customers. As per the Bank's accounting policy, as disclosed in Note 2, 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, 2020				
	Commercial	Commercial real estate	Consumer	Residential mortgage	Total
Balance at the beginning of period, before change in accounting policy	7,281	1,496	1,502	13,309	23,588
Cumulative effect from change in accounting policy (Note 2)	4,109	1,026	2,506	200	7,841
Provision increase (decrease)	4,953	(274)	1,954	4,081	10,714
Recoveries of previous charge-offs	6	—	850	290	1,146
Charge-offs	(16)	—	(1,574)	(789)	(2,379)
Other	(21)	(1)	5	153	136
Allowances for expected credit losses at end of period	16,312	2,247	5,243	17,244	41,046

	Nine months ended September 30, 2019				
	Commercial	Commercial real estate	Consumer	Residential mortgage	Total
Balance at beginning of period	6,913	4,092	802	13,295	25,102
Provision increase (decrease)	652	(1,637)	1,278	(845)	(552)
Recoveries of previous charge-offs	6	—	929	407	1,342
Charge-offs	—	—	(1,662)	(288)	(1,950)
Other	—	(1)	4	(39)	(36)
General and specific allowances at end of period	7,571	2,454	1,351	12,530	23,906
Allowances at end of period: individually evaluated for impairment	5,894	515	683	10,643	17,735
Allowances at end of period: collectively evaluated for impairment	1,677	1,939	668	1,887	6,171

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.

Loan Deferral Program

In response to the COVID-19 pandemic, effective April 1, 2020 the Bank implemented a residential mortgage and consumer loan deferral program for qualified borrowers in the Bermuda and Cayman segments under which principal and interest payments on performing loans were automatically deferred for three months from April 1, 2020 to June 30, 2020 and the loan term extended. Borrowers had the option to notify the Bank if they preferred to continue with regular, scheduled payments i.e. to opt-out. Commercial customers had the option to pay interest only on their monthly loan payments with no penalties. Loans that meet the requirements for deferral under the programs are not considered TDRs or past due as the borrowers were current on their payments and were not experiencing financial difficulty at the time of these modifications.

In addition, the Bank also introduced deferrals on credit card payments for April and May in the Bermuda segment and May and June in the Cayman segment.

The Bank subsequently extended the residential mortgage and personal loan deferral program for a further three months from July 1, 2020 to September 30, 2020, however borrowers had to notify the Bank of their intention to defer principal and interest payments.

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Non-Performing Loans

During the nine months ended September 30, 2020, no interest was recognized on non-accrual loans. Non-performing loans at September 30, 2020 include PCD loans, which have all been on non-accrual status since their acquisition. The balances at December 31, 2019 have not been restated to include the \$1.8 million amortized cost of PCD loans as at that date. No credit deteriorated loans were purchased during the period.

	September 30, 2020				December 31, 2019			
	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	18,214	22	—	18,236	7,487	80	—	7,567
Commercial overdrafts	—	3	—	3	—	2	—	2
Total commercial loans	18,214	25	—	18,239	7,487	82	—	7,569
Commercial real estate loans								
Commercial mortgage	966	3,951	—	4,917	1,019	2,231	—	3,250
Construction	—	—	—	—	—	—	3,128	3,128
Total commercial real estate loans	966	3,951	—	4,917	1,019	2,231	3,128	6,378
Consumer loans								
Automobile financing	122	6	—	128	—	155	—	155
Credit card	—	—	400	400	—	—	424	424
Overdrafts	—	4	—	4	—	34	—	34
Other consumer	851	181	—	1,032	676	387	—	1,063
Total consumer loans	973	191	400	1,564	676	576	424	1,676
Residential mortgage loans	40,944	9,533	18,966	69,443	29,016	9,314	12,008	50,338
Total non-performing loans	61,098	13,700	19,366	94,164	38,198	12,203	15,560	65,961

Loans modified in a TDR

As at September 30, 2020, the Bank had no loans that were modified in a TDR during the preceding 12 months that subsequently defaulted (December 31, 2019: nil).

TDRs entered into during the period

	Nine months ended September 30, 2020			
	Number of contracts	Pre- modification recorded loans	Modification: interest capitalization	Post- modification recorded loans
Residential mortgage loans	1	352	—	352
	Nine months ended September 30, 2019			
	Number of contracts	Pre- modification recorded loans	Modification: interest capitalization	Post- modification recorded loans
Residential mortgage loans	3	1,381	101	1,482

TDRs Outstanding

	September 30, 2020		December 31, 2019	
	Accrual	Non-accrual	Accrual	Non-accrual
Commercial loans	914	—	939	—
Commercial real estate loans	2,352	1,820	2,954	1,315
Residential mortgage loans	57,846	18,226	65,275	9,576
Total TDRs outstanding	61,112	20,046	69,168	10,891

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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 exposures 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, 2020				December 31, 2019			
	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
Australia	166,787	—	—	166,787	170,956	—	—	170,956
Bermuda	40,221	2,230,206	341,012	2,611,439	38,059	2,253,969	347,802	2,639,830
Canada	523,001	—	—	523,001	553,941	—	—	553,941
Cayman	24,397	929,224	251,303	1,204,924	55,360	931,434	208,404	1,195,198
Germany	80,724	—	—	80,724	—	—	—	—
Guernsey	2	734,789	205,290	940,081	4	856,453	123,376	979,833
Ireland	76,225	—	—	76,225	—	—	—	—
Japan	2,326	—	—	2,326	16,183	—	—	16,183
Jersey	—	14,736	34,410	49,146	—	7,219	—	7,219
Netherlands	268	—	—	268	410,461	—	—	410,461
Norway	19,923	—	—	19,923	1,204	—	—	1,204
Saint Lucia	—	29,175	—	29,175	—	29,400	—	29,400
Switzerland	5,495	—	—	5,495	8,015	—	—	8,015
The Bahamas	1,681	12,259	—	13,940	1,607	12,859	—	14,466
United Kingdom	1,408,955	1,125,994	163,612	2,698,561	1,742,676	1,074,876	108,599	2,926,151
United States	937,620	—	—	937,620	898,262	—	—	898,262
Other	6,762	—	—	6,762	14,005	—	—	14,005
Total gross exposure	3,294,387	5,076,383	995,627	9,366,397	3,910,733	5,166,210	788,181	9,865,124

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Note 8: Customer deposits and deposits from banks

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, 2020									
Demand or less than \$100k ¹	2,610,225	6,928,749	9,538,974	29,858	11,718	12,458	15,306	69,340	9,608,314
Term - \$100k or more	N/A	N/A	—	1,535,322	368,990	293,272	85,220	2,282,804	2,282,804
Total deposits	2,610,225	6,928,749	9,538,974	1,565,180	380,708	305,730	100,526	2,352,144	11,891,118

	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, 2019									
Demand or less than \$100k ¹	2,238,256	7,152,063	9,390,319	31,666	9,355	13,497	16,478	70,996	9,461,315
Term - \$100k or more	N/A	N/A	—	2,402,619	224,945	291,020	61,726	2,980,310	2,980,310
Total deposits	2,238,256	7,152,063	9,390,319	2,434,285	234,300	304,517	78,204	3,051,306	12,441,625

¹ The weighted-average interest rate on interest-bearing demand deposits as at September 30, 2020 is -0.02% (December 31, 2019: 0.20%).

By Type and Segment

	September 30, 2020			December 31, 2019		
	Payable on demand	Payable on a fixed date	Total	Payable on demand	Payable on a fixed date	Total
Bermuda	3,505,186	703,538	4,208,724	3,145,859	1,265,679	4,411,538
Cayman	3,246,363	421,488	3,667,851	2,995,119	479,848	3,474,967
Channel Islands and the UK	2,787,425	1,227,118	4,014,543	3,249,341	1,305,779	4,555,120
Total deposits	9,538,974	2,352,144	11,891,118	9,390,319	3,051,306	12,441,625

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 United Kingdom jurisdictions and the defined benefit post-retirement medical plan is in Bermuda.

The Bank includes an estimate of the 2020 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, 2019. During the nine months ended September 30, 2020, there have been no material revisions to these estimates.

		Three months ended		Nine months ended	
		September 30, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Line item in the consolidated statements of operations					
Defined benefit pension expense (income)					
Service cost	Salaries and other employee benefits	44	—	44	—
Interest cost	Non-service employee benefits expense	995	1,236	2,955	3,766
Expected return on plan assets	Non-service employee benefits expense	(1,898)	(1,857)	(5,639)	(5,657)
Amortization of net actuarial (gains) losses	Non-service employee benefits expense	604	608	1,806	1,834
Amortization of prior service (credit) cost	Non-service employee benefits expense	(34)	5	(24)	15
Settlement (gain) loss	Net other gains (losses)	367	—	518	—
Total defined benefit pension expense (income)		78	(8)	(340)	(42)
Post-retirement medical benefit expense (income)					
Service cost	Salaries and other employee benefits	17	15	50	44
Interest cost	Non-service employee benefits expense	818	1,185	2,453	3,555
Amortization of net actuarial (gains) losses	Non-service employee benefits expense	—	68	—	204
Amortization of prior service (credit) cost	Non-service employee benefits expense	131	94	393	282
Total post-retirement medical benefit expense (income)		966	1,362	2,896	4,085

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, 2020, \$158.8 million (December 31, 2019: \$143.6 million) of standby letters of credit were issued under this facility.

Outstanding unfunded commitments to extend credit	September 30, 2020	December 31, 2019
Commitments to extend credit	722,840	549,049
Documentary and commercial letters of credit	290	355
Total unfunded commitments to extend credit	723,130	549,404
Allowance for credit losses	(177)	—

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 is 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, 2020			December 31, 2019		
	Gross	Collateral	Net	Gross	Collateral	Net
Standby letters of credit	267,900	260,570	7,330	230,971	223,711	7,260
Letters of guarantee	4,597	4,561	36	7,806	7,672	134
Total	272,497	265,131	7,366	238,777	231,383	7,394

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 in 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, 2020, the Bank had 6 open positions (December 31, 2019: 13) 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 \$326.9 million (December 31, 2019: \$142.3 million) and are included in securities purchased under agreement to resell on the consolidated balance sheets. As at September 30, 2020, there were no positions (December 31, 2019: 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 paragraphs.

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. The Bank has been fully cooperating with the US authorities in their ongoing investigation. Specifically, the Bank has conducted an extensive review and account remediation exercise to determine the US tax compliance status of US person account holders. The review process and results have been shared with the US authorities.

Management believes that as at September 30, 2020, a provision of \$5.5 million (December 31, 2019: \$5.5 million), which has been recorded, is appropriate. As the investigation remains ongoing at this time, the timing and terms of the final resolution, including any fines or penalties, remain uncertain and the financial impact to the Bank could exceed the amount of the provision. In this regard, we note that the US authorities have not approved or commented on the adequacy or reasonableness of the estimate. The provision is included on the consolidated balance sheets under other liabilities.

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, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Lease costs				
Operating lease costs	1,933	1,873	6,030	4,453
Short-term lease costs	454	236	968	648
Sublease income	(290)	(231)	(849)	(239)
Total net lease cost	2,097	1,878	6,149	4,862
Operating lease income	206	285	711	873
Other information for the period				
Right-of-use assets related to new operating lease liabilities	323	26,093	323	29,486
Operating cash flows from operating leases	2,219	1,925	6,200	4,612

Other information at end of period	September 30, 2020	December 31, 2019
Operating leases right-of-use assets (included in other assets on the balance sheets)	45,961	47,947
Operating lease liabilities (included in other liabilities on the balance sheets)	44,710	48,334
Weighted average remaining lease term for operating leases (in years)	10.03	10.37
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, 2019:

Year ending December 31	Operating Leases
2020	8,570
2021	8,312
2022	7,923
2023	7,004
2024	4,324
2025 & thereafter	27,194
Total commitments	63,327
Less: effect of discounting cash flows to their present value	(14,993)
Operating lease liabilities	48,334

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, 2019. 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 full range of retail, commercial and private banking services. Retail services are offered to individuals and small to medium-sized businesses through three branch locations and through internet banking, mobile banking, automated teller machines ("ATMs") and debit cards. Retail services include deposit services, consumer and mortgage lending, credit cards and personal insurance products. Commercial banking includes commercial lending and mortgages, cash management, payroll services, remote banking and letters of credit. Treasury services include money market and foreign exchange activities. Bermuda's wealth management offering consists of Butterfield Asset Management Limited, which provides investment management, advisory and brokerage services and Butterfield Trust (Bermuda) Limited, which provides trust,

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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 private banking and treasury services, internet banking, wealth management and fiduciary services. 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, 2020	December 31, 2019
Bermuda	5,229,393	5,220,016
Cayman	4,070,775	3,839,074
Channel Islands and the UK	4,608,246	5,108,357
Other	33,347	35,148
Total assets before inter-segment eliminations	13,941,761	14,202,595
Less: inter-segment eliminations	(481,016)	(281,020)
Total	13,460,745	13,921,575

Three months ended September 30, 2020	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	38,275	135	(1,604)	21,838	58,644	1,613	60,257	51,399	8,858
Cayman	21,691	301	40	12,520	34,552	414	34,966	17,213	17,753
Channel Islands and the UK	15,347	(436)	209	10,425	25,545	(515)	25,030	20,796	4,234
Other	—	—	—	3,722	3,722	—	3,722	4,024	(302)
Total before eliminations	75,313	—	(1,355)	48,505	122,463	1,512	123,975	93,432	30,543
Inter-segment eliminations	—	—	—	(1,628)	(1,628)	—	(1,628)	(1,628)	—
Total	75,313	—	(1,355)	46,877	120,835	1,512	122,347	91,804	30,543

Three months ended September 30, 2019	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	45,279	177	(591)	22,391	67,256	(47)	67,209	51,186	16,023
Cayman	27,660	280	228	12,548	40,716	570	41,286	15,230	26,056
Channel Islands and the UK	13,376	(457)	(48)	9,495	22,366	—	22,366	21,691	675
Other	13	—	—	5,439	5,452	—	5,452	5,769	(317)
Total before eliminations	86,328	—	(411)	49,873	135,790	523	136,313	93,876	42,437
Inter-segment eliminations	—	—	—	(3,227)	(3,227)	—	(3,227)	(3,227)	—
Total	86,328	—	(411)	46,646	132,563	523	133,086	90,649	42,437

Nine months ended September 30, 2020	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	120,745	632	(11,113)	63,406	173,670	1,626	175,296	147,367	27,929
Cayman	72,094	835	238	36,257	109,424	416	109,840	47,910	61,930
Channel Islands and the UK	49,173	(1,467)	(16)	29,930	77,620	(425)	77,195	61,446	15,749
Other	7	—	—	11,446	11,453	(1)	11,452	11,906	(454)
Total before eliminations	242,019	—	(10,891)	141,039	372,167	1,616	373,783	268,629	105,154
Inter-segment eliminations	—	—	—	(4,942)	(4,942)	—	(4,942)	(4,942)	—
Total	242,019	—	(10,891)	136,097	367,225	1,616	368,841	263,687	105,154

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Nine months ended September 30, 2019	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	138,595	1,156	(1,328)	66,424	204,847	1,909	206,756	157,372	49,384
Cayman	87,040	609	521	38,231	126,401	575	126,976	45,043	81,933
Channel Islands and the UK	33,787	(1,765)	1,359	23,177	56,558	—	56,558	53,136	3,422
Other	40	—	—	15,927	15,967	(17)	15,950	17,503	(1,553)
Total before eliminations	259,462	—	552	143,759	403,773	2,467	406,240	273,054	133,186
Inter-segment eliminations	—	—	—	(9,494)	(9,494)	—	(9,494)	(9,494)	—
Total	259,462	—	552	134,265	394,279	2,467	396,746	263,560	133,186

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.

Fair value hedges includes 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 last-of-layer method.

Net investment hedges includes 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 AOCL 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 AOCL (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 AOCL are reclassified to earnings only upon the sale or substantial liquidation of an investment in a foreign subsidiary.

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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 AOCL 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 loss for details on the amount recognized into AOCL during the current period from translation gain or loss.

Derivatives not formally designated as hedges are entered into to manage the interest rate risk of fixed rate deposits and 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 income.

Client service derivatives

The Bank enters into foreign exchange contracts and interest rate caps 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 income.

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. 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, 2020	Derivative instrument	Number of contracts	Notional amounts	Gross positive fair value	Gross negative fair value	Net fair value	
Risk management derivatives							
Net investment hedges	Currency swaps	3	65,122	—	(1,005)	(1,005)	
Fair value hedges	Currency swaps	4	204,011	454	(455)	(1)	
Derivatives not formally designated as hedging instruments	Currency swaps	52	1,647,254	2,474	(12,478)	(10,004)	
Subtotal risk management derivatives			1,916,387	2,928	(13,938)	(11,010)	
Client services derivatives		Spot and forward foreign exchange	263	1,041,165	4,729	(3,863)	866
Total derivative instruments			2,957,552	7,657	(17,801)	(10,144)	
December 31, 2019	Derivative instrument	Number of contracts	Notional amounts	Gross positive fair value	Gross negative fair value	Net fair value	
Risk management derivatives							
Net investment hedges	Currency swaps	1	9,502	—	(118)	(118)	
Derivatives not formally designated as hedging instruments	Currency swaps	9	207,032	1,632	(1,339)	293	
Subtotal risk management derivatives			216,534	1,632	(1,457)	175	
Client services derivatives		Spot and forward foreign exchange	352	3,280,636	31,060	(30,602)	458
Total derivative instruments			3,497,170	32,692	(32,059)	633	

In addition to the above, as at September 30, 2020 foreign denominated deposits of £205.3 million (December 31, 2019: £251.4 million) and CHF 0.4 million (December 31, 2019: 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.

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	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		
				Gross fair value of derivatives	Cash collateral received / paid	Net exposures
September 30, 2020						
Derivative assets						
Spot and forward foreign exchange and currency swaps	7,657	(2,291)	5,366	—	(405)	4,961
Derivative liabilities						
Spot and forward foreign exchange and currency swaps	17,801	(2,291)	15,510	—	(1,723)	13,787
Net negative fair value			(10,144)			

	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		
				Gross fair value of derivatives	Cash collateral received / paid	Net exposures
December 31, 2019						
Derivative assets						
Spot and forward foreign exchange and currency swaps	32,692	(2,233)	30,459	—	(3,224)	27,235
Derivative liabilities						
Spot and forward foreign exchange and currency swaps	32,059	(2,233)	29,826	—	(997)	28,829
Net positive fair value			633			

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.

		Three months ended		Nine months ended	
Derivative instrument	Consolidated statements of operations line item	September 30, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Spot and forward foreign exchange	Foreign exchange revenue	436	321	408	33
Currency swaps, not designated as hedge	Foreign exchange revenue	(18,056)	(900)	(10,297)	(244)
Total net gains (losses) recognized in net income		(17,620)	(579)	(9,889)	(211)

Derivative instrument	Consolidated statements of comprehensive income line item	September 30, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Currency swaps - net investment hedge	Net change in unrealized gains and (losses) on translation of net investment in foreign operations	(873)	339	(888)	366
Total net gains (losses) recognized in comprehensive income		(873)	339	(888)	366

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, 2019.

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 actively traded redeemable mutual funds.

Financial instruments in Level 2 include government debt securities, corporate 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, 2020 and the year ended December 31, 2019.

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	September 30, 2020				December 31, 2019			
	Fair value			Total carrying amount / fair value	Fair value			Total carrying amount / fair value
	Level 1	Level 2	Level 3		Level 1	Level 2	Level 3	
Items that are recognized at fair value on a recurring basis:								
Financial assets								
Equity securities								
Mutual funds	7,309	250	—	7,559	7,141	278	—	7,419
Total equity securities	7,309	250	—	7,559	7,141	278	—	7,419
Available-for-sale investments								
US government and federal agencies	—	2,250,212	—	2,250,212	—	2,052,446	—	2,052,446
Non-US governments debt securities	—	25,808	—	25,808	—	25,676	—	25,676
Asset-backed securities - Student loans	—	—	12,909	12,909	—	—	12,891	12,891
Residential mortgage-backed securities	—	80,784	—	80,784	—	129,328	—	129,328
Total available-for-sale	—	2,356,804	12,909	2,369,713	—	2,207,450	12,891	2,220,341
Other assets - Derivatives								
Other assets - Derivatives	—	5,366	—	5,366	—	30,459	—	30,459
Financial liabilities								
Other liabilities - Derivatives	—	15,510	—	15,510	—	29,826	—	29,826

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, 2020	Year ended December 31, 2019
	Available-for-sale investments	Available-for-sale investments
Carrying amount at beginning of period	12,891	12,626
Realized and unrealized gains (losses) recognized in other comprehensive income	18	265
Carrying amount at end of period	12,909	12,891
Cumulative gain (loss) recognized in other comprehensive income	(381)	(399)

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

	Level	September 30, 2020			December 31, 2019		
		Carrying amount	Fair value	Appreciation / (depreciation)	Carrying amount	Fair value	Appreciation / (depreciation)
Financial assets							
Cash due from banks	Level 1	2,160,903	2,160,903	—	2,550,070	2,550,070	—
Securities purchased under agreements to resell	Level 2	326,877	326,877	—	142,283	142,283	—
Short-term investments	Level 1	806,607	806,607	—	1,218,380	1,218,380	—
Investments held-to-maturity	Level 2	2,347,341	2,457,933	110,592	2,208,663	2,255,987	47,324
Loans, net of allowance for credit losses	Level 2	5,035,337	5,074,870	39,533	5,142,622	5,161,257	18,635
Other real estate owned¹	Level 2	4,227	4,227	—	3,842	3,842	—
Financial liabilities							
Term deposits	Level 2	2,352,144	2,357,814	(5,670)	3,051,306	3,054,813	(3,507)
Long-term debt	Level 2	196,359	197,872	(1,513)	143,500	147,574	(4,074)

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

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Note 15: Interest rate risk

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

September 30, 2020	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	2,067	—	—	—	—	94	2,161
Securities purchased under agreement to resell	327	—	—	—	—	—	327
Short-term investments	542	258	7	—	—	—	807
Investments	13	6	34	103	4,561	8	4,725
Loans	4,019	54	77	620	224	41	5,035
Other assets	—	—	—	—	—	406	406
Total assets	6,968	318	118	723	4,785	549	13,461
Liabilities and shareholders' equity							
Shareholders' equity	—	—	—	—	—	989	989
Demand deposits	6,929	—	—	—	—	2,610	9,539
Term deposits	1,565	381	306	101	—	—	2,353
Other liabilities	—	—	—	—	—	384	384
Long-term debt	25	—	—	171	—	—	196
Total liabilities and shareholders' equity	8,519	381	306	272	—	3,983	13,461
Interest rate sensitivity gap	(1,551)	(63)	(188)	451	4,785	(3,434)	—
Cumulative interest rate sensitivity gap	(1,551)	(1,614)	(1,802)	(1,351)	3,434	—	—

December 31, 2019	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	2,462	—	—	—	—	88	2,550
Securities purchased under agreement to resell	142	—	—	—	—	—	142
Short-term investments	622	591	3	—	—	2	1,218
Investments	415	23	11	102	3,878	7	4,436
Loans	4,025	16	148	292	648	14	5,143
Other assets	—	—	—	—	—	433	433
Total assets	7,666	630	162	394	4,526	544	13,922
Liabilities and shareholders' equity							
Shareholders' equity	—	—	—	—	—	964	964
Demand deposits	7,151	—	—	—	—	2,239	9,390
Term deposits	2,435	234	305	78	—	—	3,052
Other liabilities	—	—	—	—	—	373	373
Long-term debt	70	—	—	73	—	—	143
Total liabilities and shareholders' equity	9,656	234	305	151	—	3,576	13,922
Interest rate sensitivity gap	(1,990)	396	(143)	243	4,526	(3,032)	—
Cumulative interest rate sensitivity gap	(1,990)	(1,594)	(1,737)	(1,494)	3,032	—	—

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 2015, which were redeemed at face value in January 2014, and US \$60 million in Series B notes due 2020. The issuance was by way of private placement with US institutional investors. The notes are 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 with the balance of \$45 million maturing 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 2018, which were redeemed at face value in May 2013, and US \$25 million in Series B notes due 2023. The issuance was by way of private placement with US institutional investors. The notes are 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 pay 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.

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 Bermuda Stock Exchange (BSX) in the specialist debt securities category. The proceeds of the issue were used, among other, 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 4, 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 Bermuda Stock Exchange (BSX) in the specialist debt securities category. The proceeds of the issue were used, among other, 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, 2020 and the year ended December 31, 2019.

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, 2020. The interest payments are calculated until contractual maturity using the current London Inter-bank Offered Rate ("LIBOR") and Secured Overnight Financing Rate ("SOFR").

						Interest payments until contractual maturity		
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	Within 1 year	1 to 5 years	After 5 years
Bermuda								
2008 issuance - Series B	May 27, 2018	May 27, 2023	8.44 %	3 months US\$ LIBOR + 4.929%	25,000	1,309	2,287	—
2018 issuance	June 1, 2023	June 1, 2028	5.25 %	3 months US\$ LIBOR + 2.255%	75,000	3,938	12,143	5,206
2020 issuance	June 15, 2025	June 15, 2030	5.25 %	3 months US\$ SOFR + 5.060%	100,000	5,308	22,314	24,758
Total					200,000	10,555	36,744	29,964
Unamortized debt issuance costs					(3,641)			
Long-term debt less unamortized debt issuance costs					196,359			

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, 2020, options to purchase an average of 0.1 million (September 30, 2019: 0.2 million) common shares were outstanding. During the nine months ended September 30, 2020, the average number of outstanding awards of unvested common shares was 0.9 million (September 30, 2019: 1.0 million). Only awards for which the sum of 1) the expense that will be recognized in the future (i.e., the unrecognized expense) and 2) its exercise price, if any, was lower than the average market price of the Bank's common shares were considered dilutive and, therefore, included in the computation of diluted earnings per share. An award's unrecognized expense is also considered to be the proceeds the employees would need to pay to purchase accelerated vesting of the awards. For 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.

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	Three months ended September 30, 2020	September 30, 2019	Nine months ended September 30, 2020	September 30, 2019
Net income	30,543	42,437	105,154	133,186
Basic Earnings Per Share				
Weighted average number of common shares issued	50,366	53,972	51,459	54,646
Weighted average number of common shares held as treasury stock	(619)	(869)	(619)	(1,330)
Weighted average number of common shares (in thousands)	49,747	53,103	50,840	53,316
Basic Earnings Per Share	0.61	0.80	2.07	2.50
Diluted Earnings Per Share				
Weighted average number of common shares	49,747	53,103	50,840	53,316
Net dilution impact related to options to purchase common shares	49	117	67	123
Net dilution impact related to awards of unvested common shares	245	334	257	365
Weighted average number of diluted common shares (in thousands)	50,041	53,554	51,164	53,804
Diluted Earnings Per Share	0.61	0.79	2.06	2.48

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 shares 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 shares awards. Both types of awards are detailed below.

Stock Option Awards

1997 Stock Option Plan

Prior to the capital raise on March 2, 2010, the Bank granted stock options to employees and Directors of the Bank that entitle the holder to purchase one common share at a subscription price equal to the market price on the effective date of the grant. Generally, the options granted vest 25 percent at the end of each year for four years, however as a result of the 2010 capital raise, the options granted under the Bank's 1997 Stock Option Plan to employees became fully vested and options awarded to certain executives were surrendered.

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.

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Changes in Outstanding Stock Option Plans

	Number of shares transferable upon exercise (thousands)			Weighted average exercise price (\$)		Weighted average remaining life (years)		Aggregate intrinsic value (\$ thousands)
	1997 Stock Option Plan	2010 Stock Option Plan	Total	1997 Stock Option Plan	2010 Stock Option Plan	1997 Stock Option Plan	2010 Stock Option Plan	
Nine months ended September 30, 2020								
Outstanding at beginning of period	—	159	159	—	12.07			
Exercised	—	(43)	(43)	—	(11.50)			263
Forfeitures and cancellations	—	(15)	(15)	—	(11.50)			
Outstanding at end of period	—	101	101	—	12.40	—	0.22	988
Vested and exercisable at end of period	—	101	101	—	12.40	—	0.22	

	Number of shares transferable upon exercise (thousands)			Weighted average exercise price (\$)		Weighted average remaining life (years)		Aggregate intrinsic value (\$ thousands)
	1997 Stock Option Plan	2010 Stock Option Plan	Total	1997 Stock Option Plan	2010 Stock Option Plan	1997 Stock Option Plan	2010 Stock Option Plan	
Nine months ended September 30, 2019								
Outstanding at beginning of period	25	189	214	64.51	11.98			
Exercised	—	(5)	(5)	—	11.50			88
Expiration at end of plan life	(25)	—	(25)	64.51	—			
Outstanding at end of period	—	184	184	—	11.99	—	0.93	3,251
Vested and exercisable at end of period	—	184	184	—	11.99	—	0.93	

Share Based Plans

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

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

The grant date weighted average fair value of unvested share awards granted in the nine months ended September 30, 2020 was \$34.51 (December 31, 2019: \$35.77). The Bank expects to settle these awards by issuing new shares.

Employee Deferred Incentive Plan ("EDIP")

Under the Bank's EDIP Plan, 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 Plan ("ELTIP") - Years 2013 - 2020

The 2020 ELTIP was approved on February 12, 2020. Under the Bank's ELTIP plans for the years 2013 through 2020, 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.

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

	Nine months ended			
	September 30, 2020		September 30, 2019	
	EDIP	ELTIP	EDIP	ELTIP
Outstanding at beginning of period	251	618	234	697
Granted	196	200	166	298
Vested (fair value in 2020: \$9.5 million, 2019: \$18.0)	(123)	(162)	(149)	(389)
Resignation	(3)	(6)	(3)	(7)
Outstanding at end of period	321	649	248	599

Share-based Compensation Cost Recognized in Net Income

	Nine months ended	
	September 30, 2020	September 30, 2019
	EDIP and ELTIP	EDIP and ELTIP
Cost recognized in net income	11,331	13,906

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Unrecognized Share-based Compensation Cost

	September 30, 2020		December 31, 2019	
	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	6,761	1.94	4,744	1.71
ELTIP				
Time vesting shares	197	1.31	121	0.48
Performance vesting shares	10,043	1.74	9,765	1.80
Total unrecognized expense	17,001		14,630	

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 purchase, 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 February 15, 2018, the Board approved, with effect on April 1, 2018, the 2018 common share buy-back program, authorizing the purchase for treasury of up to 1.0 million common shares.

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

On December 2, 2019, the Board approved a new \$125 million common share repurchase program, authorizing the purchase for treasury of up to 3.5 million common shares through to February 28, 2021. The new program came into effect on December 20, 2019 following the completion of the previous program.

In the nine months ended September 30, 2020, the Bank repurchased and retired 3,249,200 shares.

	Nine months ended	Year ended December 31		
	September 30, 2020	2019	2018	Total
Common share buy-backs				
Acquired number of shares (to the nearest 1)	3,249,200	2,293,788	1,254,212	6,797,200
Average cost per common share	24.86	35.55	38.62	31.01
Total cost (in US dollars)	80,770,793	81,534,076	48,442,768	210,747,637

Note 20: Accumulated other comprehensive loss

Nine months ended September 30, 2020	Unrealized (losses) on translation of net investment in foreign operations	HTM investments	Unrealized gains (losses) on AFS investments	Employee benefit plans			Total AOCL
				Pension	Post-retirement healthcare	Subtotal - employee benefits plans	
Balance at beginning of period	(20,818)	(725)	11,808	(66,312)	(11,050)	(77,362)	(87,097)
Other comprehensive income (loss), net of taxes	(969)	397	60,800	2,707	393	3,100	63,328
Balance at end of period	(21,787)	(328)	72,608	(63,605)	(10,657)	(74,262)	(23,769)

Nine months ended September 30, 2019	Unrealized (losses) on translation of net investment in foreign operations	HTM investments	Unrealized gains (losses) on AFS investments	Employee benefit plans			Total AOCL
				Pension	Post-retirement healthcare	Subtotal - employee benefits plans	
Balance at beginning of period	(19,866)	(796)	(43,630)	(64,892)	(19,343)	(84,235)	(148,527)
Other comprehensive income (loss), net of taxes	(1,608)	38	57,597	2,341	486	2,827	58,854
Balance at end of period	(21,474)	(758)	13,967	(62,551)	(18,857)	(81,408)	(89,673)

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Net Change of AOCL Components

		Three months ended		Nine months ended	
	Line item in the consolidated statements of operations, if any	September 30, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Net unrealized gains (losses) on translation of net investment in foreign operations adjustments					
Foreign currency translation adjustments	N/A	528	(9,154)	(969)	(10,016)
Gains (loss) on net investment hedge	N/A	—	7,809	—	8,408
Net change		528	(1,345)	(969)	(1,608)
Held-to-maturity investment adjustments					
Amortization of net gains (losses) to net income	Interest income on investments	228	12	397	38
Net change		228	12	397	38
Available-for-sale investment adjustments					
Gross unrealized gains (losses)	N/A	3,904	14,065	61,916	59,106
Transfer of realized (gains) losses to net income	Net realized gains (losses) on AFS investments	(1,116)	(537)	(1,116)	(1,509)
Net change		2,788	13,528	60,800	57,597
Employee benefit plans adjustments					
Defined benefit pension plan					
Net loss (gain) on settlement reclassified to net income	Net other gains (losses)	367	—	518	—
Amortization of net actuarial (gains) losses	Non-service employee benefits expense	604	608	1,806	1,834
Amortization of prior service (credit) cost	Non-service employee benefits expense	(34)	5	(24)	15
Foreign currency translation adjustments of related balances	N/A	(597)	436	407	492
Net change		340	1,049	2,707	2,341
Post-retirement healthcare plan					
Amortization of net actuarial (gains) losses	Non-service employee benefits expense	—	68	—	204
Amortization of prior service (credit) cost	Non-service employee benefits expense	131	94	393	282
Net change		131	162	393	486
Other comprehensive income (loss), net of taxes		4,015	13,406	63,328	58,854

Note 21: Capital structure

Authorized Capital

On September 16, 2016, the Bank began trading on the New York Stock Exchange under the ticker symbol "NTB". The offering of 12,234,042 common shares consisted of 5,957,447 newly issued common shares sold by Butterfield and 6,276,595 common shares sold by certain selling shareholders, including 1,595,744 common shares sold by certain of the selling shareholders pursuant to the underwriters' option to purchase additional shares, which was exercised in full prior to the closing.

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

Dividends Declared

During the nine months ended September 30, 2020, the Bank paid cash dividends of \$1.32 (September 30, 2019: \$1.32) for each common share as of the related record dates. On October 28, 2020, the Board of Directors declared an interim dividend of \$0.44 per common share to be paid on November 30, 2020 to shareholders of record on November 12, 2020.

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. Basel III adopts Common Equity Tier 1 ("CET1") as the predominant form of regulatory capital with the CET1 ratio as a new metric. Basel III also adopts the new Leverage Ratio regime, which is calculated by dividing Tier 1 capital by an exposure measure. The Leverage Ratio Exposure Measure consists of total assets (excluding items deducted from Tier 1 capital) and certain off-balance sheet items converted into credit exposure equivalents as well as adjustments for derivatives to reflect credit risk and other risks.

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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, 2020 and December 31, 2019. The following table sets forth the Bank's capital adequacy in accordance with the Basel III framework:

	September 30, 2020		December 31, 2019	
	Actual	Regulatory minimum	Actual	Regulatory minimum
Capital				
CET 1 capital	820,517	N/A	848,821	N/A
Tier 1 capital	820,517	N/A	848,821	N/A
Tier 2 capital	205,896	N/A	103,243	N/A
Total capital	1,026,413	N/A	952,064	N/A
Risk Weighted Assets	4,939,173	N/A	4,897,851	N/A
Leverage Ratio Exposure Measure	14,012,810	N/A	14,377,474	N/A
Capital Ratios (%)				
CET 1 capital	16.6 %	10.0 %	17.3 %	10.0 %
Tier 1 capital	16.6 %	11.5 %	17.3 %	11.5 %
Total capital	20.8 %	16.3 %	19.4 %	16.3 %
Leverage ratio	5.9 %	5.0 %	5.9 %	5.0 %

Note 22: Business combinations

ABN AMRO (Channel Islands) Limited Acquisition

On April 25, 2019, the Bank announced that it entered into an agreement to acquire all the outstanding shares of ABN AMRO (Channel Islands) Limited ("ABN AMRO Channel Islands"), the Channel Islands-based banking subsidiary of ABN AMRO Bank N.V. via one of the Bank's subsidiaries, Butterfield Bank (Guernsey) Limited. ABN AMRO Channel Islands offers banking, investment management and custody products to three distinct client groups, including trusts, private clients, and funds.

This agreement is part of the Bank's strategy to grow through acquisitions in offshore markets where the Bank already has scale and expertise in order to create an organization with a widened and diversified offering.

On July 15, 2019, the transaction completed as planned and the aggregate purchase price of £160.7 million (\$201.1 million) was paid in cash. During 2020, it is expected that ABN AMRO Channel Islands' business and employees will be integrated with the existing Butterfield Guernsey operations and operate under the Butterfield name. In addition to the figures noted below, on July 15, 2019, ABN AMRO Channel Islands had estimated clients' assets under management and custody of \$4.7 billion.

The fair value of the net assets acquired and allocation of purchase price is summarized as follows:

	As at July 15, 2019
Total consideration transferred	201,107
Assets acquired	
Cash due from banks	3,016,859
Loans	654,503
Intangible assets - Customer relationships	24,371
Other assets	31,674
Total assets acquired	3,727,407
Liabilities assumed	
Deposits	(3,493,239)
Other liabilities	(33,061)
Total liabilities assumed	(3,526,300)
Excess purchase price (Goodwill)	—

The acquired customer relationships intangible assets have an estimated finite useful life of 15 years.

The Bank incurred legal and professional transaction expenses related to this acquisition in the amount of \$5.4 million all of which were incurred and expensed during the year ended December 31, 2019.

For the period beginning on July 15, 2019 (i.e. acquisition date) to December 31, 2019, the amount of revenues and earnings relating to the acquired ABN AMRO Channel Islands operations that were not inextricably merged into the Bank's operations were \$13.7 million and a net income of \$1.5 million respectively.

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The following selected unaudited pro forma financial information has been provided to present a summary of the combined results of the Bank and the acquired ABN AMRO Channel Islands operations, assuming the transaction had been effected on January 1, 2018. The unaudited pro forma data is for informational purposes only and does not necessarily represent results that would have occurred if the transaction had taken place on the basis assumed above. The pro forma financial information has been prepared based on the actual results realized by ABN AMRO Channel Islands from January 1, 2019 to July 15, 2019, and results estimated at the time of the acquisition.

	Nine months ended September 30, 2019
Unaudited pro forma financial information	
Total net revenue	419,459
Total non-interest operating (expense)	(280,803)
Pro forma net income post business combination	138,656

Note 23: 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 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, 2020 and December 31, 2019. 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, 2018	97,195
Loans issued during the year	45,602
Loan repayments and the effect of changes in the composition of related parties	(104,156)
Balance at December 31, 2019	38,641
Loans issued during the period	21,351
Loan repayments and the effect of changes in the composition of related parties	(10,686)
Balance at September 30, 2020	49,306

Consolidated balance sheets	September 30, 2020	December 31, 2019
Deposits	9,083	12,838

	Three months ended September 30, 2020	September 30, 2019	Nine months ended September 30, 2020	September 30, 2019
Consolidated statement of operations				
Interest and fees on loans	384	1,027	2,335	3,271

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:

Consolidated balance sheets	September 30, 2020	December 31, 2019
Loans	11,242	9,888
Deposits	332	342

	Three months ended September 30, 2020	September 30, 2019	Nine months ended September 30, 2020	September 30, 2019
Consolidated statement of operations				
Interest and fees on loans	244	169	498	508
Other gains/losses	712	—	712	—
Total non-interest expense	390	385	1,060	1,269

Investments

The Bank holds seed investments in several Butterfield mutual funds, which are managed by a wholly-owned subsidiary of the Bank. These investments are included in equity securities at their fair value and are as follows:

Consolidated balance sheets	September 30, 2020	December 31, 2019
Equity securities		
Fair value	7,309	7,142
Unrealized gain	2,309	2,142

As at September 30, 2020, 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.

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Consolidated balance sheets	September 30, 2020	December 31, 2019
Loans	1	16
Deposits	20,744	3,492

	Three months ended		Nine months ended	
Consolidated statement of operations	September 30, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Asset management	1,264	2,581	5,900	7,806
Custody and other administration services	245	384	881	1,083
Other non-interest income	—	243	729	729

Note 24: Subsequent events

On October 28, 2020, the Board of Directors declared an interim dividend of \$0.44 per common share to be paid on November 30, 2020 to shareholders of record on November 12, 2020.