Financial Report for the Nine Months Ended September 30, 2018

The Bank of N.T. Butterfield & Son Limited

Butterfield

INDEX TO FINANCIAL STATEMENTS

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, 2018	December 31, 2017
Assets		
Cash and demand deposits with banks - Non-interest bearing	89,416	89,381
Demand deposits with banks - Interest bearing	363,301	340,256
Cash equivalents - Interest bearing	806,381	1,105,501
Cash due from banks	1,259,098	1,535,138
Securities purchased under agreement to resell	71,693	178,769
Short-term investments	75,910	249,984
Investment in securities		
Trading	6,947	6,824
Available-for-sale	2,455,719	3,317,440
Held-to-maturity (fair value: $2,052,614 (2017: $1,377,354))	2,113,728	1,381,955
Total investment in securities	4,576,394	4,706,219
Loans		
Loans	4,119,908	3,812,329
Allowance for credit losses	(28,265)	(35,467)
Loans, net of allowance for credit losses	4,091,643	3,776,862
Premises, equipment and computer software	157,103	164,790
Accrued interest	27,227	24,915
Goodwill	24,474	21,529
Intangible assets	52,412	39,066
Equity method investments	14,332	14,099
Other real estate owned	4,737	9,127
Other assets	74,640	58,739
Total assets	10,429,663	10,779,237
Liabilities		
Customer deposits		
Bermuda		
Non-interest bearing	1,498,308	1,840,201
Interest bearing	3,374,450	3,412,623
Non-Bermuda		
Non-interest bearing	633,899	639,525
Interest bearing	3,538,712	3,631,643
Total customer deposits	9,045,369	9,523,992
Bank deposits		
Bermuda	5,915	442
Non-Bermuda	14,720	12,024
Total deposits	9,066,004	9,536,458
Employee benefit plans	128,703	128,798
Accrued interest	5,064	2,376
Pending payable for investments purchased	58,575	51,913
Other liabilities	156,384	119,811
Total other liabilities	348,726	302,898
Long-term debt	143,277	117,000
Total liabilities	9,558,007	9,956,356
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: 55,338,831 (2017: 54,692,630)	553	547
Additional paid-in capital	1,168,174	1,155,542
Accumulated deficit	(122,773)	(204,156)
Accumulated other comprehensive loss	(174,298)	(129,052)
Total shareholders' equity	871,656	822,881
Total liabilities and shareholders' equity	10,429,663	10,779,237

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, 2018	September 30, 2017	**September 30, 2018**	September 30, 2017
Non-interest income				
Asset management	**6,489**	6,336	**19,056**	18,125
Banking	**10,564**	10,795	**32,193**	31,779
Foreign exchange revenue	**7,842**	7,561	**24,301**	23,404
Trust	**13,128**	10,949	**37,230**	33,592
Custody and other administration services	**2,243**	2,046	**6,880**	5,980
Other non-interest income	**1,007**	546	**3,313**	2,594
Total non-interest income	**41,273**	38,233	**122,973**	115,474
Interest income				
Interest and fees on loans	**56,567**	47,912	**160,839**	137,869
Investments (none of the investment securities are intrinsically tax-exempt)				
Available-for-sale	**17,988**	16,275	**53,383**	48,211
Held-to-maturity	**14,662**	9,232	**38,919**	26,667
Deposits with banks	**5,788**	4,583	**18,748**	12,523
Total interest income	**95,005**	78,002	**271,889**	225,270
Interest expense				
Deposits	**4,811**	2,486	**11,336**	7,948
Long-term debt	**1,918**	1,258	**4,968**	3,675
Securities sold under repurchase agreements	**—**	—	**18**	—
Total interest expense	**6,729**	3,744	**16,322**	11,623
Net interest income before provision for credit losses	**88,276**	74,258	**255,567**	213,647
Provision for credit losses	**2,811**	661	**5,277**	487
Net interest income after provision for credit losses	**91,087**	74,919	**260,844**	214,134
Net trading gains (losses)	**161**	102	**124**	387
Net realized gains (losses) on available-for-sale investments	**458**	2,468	**1,352**	4,246
Net gains (losses) on other real estate owned	**9**	(132)	**(251)**	74
Net other gains (losses)	**26**	(683)	**(1,795)**	(743)
Total other gains (losses)	**654**	1,755	**(570)**	3,964
Total net revenue	**133,014**	114,907	**383,247**	333,572
Non-interest expense				
Salaries and other employee benefits	**42,425**	35,733	**117,635**	105,671
Technology and communications	**15,569**	13,240	**45,368**	39,578
Professional and outside services	**5,092**	6,900	**19,909**	19,231
Property	**5,281**	5,114	**15,709**	15,387
Indirect taxes	**4,836**	4,618	**14,748**	13,319
Non-service employee benefits expense	**1,332**	1,711	**3,970**	5,152
Marketing	**1,470**	906	**3,848**	4,238
Amortization of intangible assets	**1,358**	1,049	**3,751**	3,155
Restructuring costs	**—**	388	**—**	1,462
Other expenses	**4,854**	3,971	**12,912**	12,757
Total non-interest expense	**82,217**	73,630	**237,850**	219,950
Net income before income taxes	**50,797**	41,277	**145,397**	113,622
Income tax expense	**(428)**	(186)	**(1,119)**	(624)
Net income	**50,369**	41,091	**144,278**	112,998
Earnings per common share				
Basic earnings per share	**0.91**	0.75	**2.62**	2.09
Diluted earnings per share	**0.90**	0.74	**2.58**	2.04
Dividend per share	**0.38**	0.32	**1.14**	0.96

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, 2018	September 30, 2017	**September 30, 2018**	September 30, 2017
Net income	**50,369**	41,091	**144,278**	112,998
Other comprehensive income (loss), net of taxes				
Net change in unrealized gains and losses on translation of net investment in foreign operations	**(479)**	1,098	**(1,501)**	2,243
Accretion of net unrealized (gains) losses on held-to-maturity investments transferred from available-for-sale investments	**7**	21	**31**	109
Net change in unrealized gains and losses on available-for-sale investments	**(11,732)**	4,697	**(46,193)**	16,046
Employee benefit plans adjustments	**1,345**	847	**2,417**	2,608
Other comprehensive income (loss), net of taxes	**(10,859)**	6,663	**(45,246)**	21,006
Total comprehensive income	**39,510**	47,754	**99,032**	134,004

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

Consolidated Statements of Changes in Shareholders' Equity (unaudited)

	Nine months ended			
	September 30, 2018		September 30, 2017	
	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	54,692,630	547	53,284,872	533
Issuance of common shares	646,201	6	1,390,320	14
Balance at end of period	55,338,831	553	54,675,192	547
Additional paid-in capital				
Balance at beginning of period		1,155,542		1,142,608
Share-based compensation		8,558		5,225
Share-based settlements		918		289
Cost of issuance of common shares		—		22
Issuance of common shares, net of underwriting discounts and commissions		3,156		4,313
Sale of treasury common shares		—		(1)
Balance at end of period		1,168,174		1,152,456
Accumulated deficit				
Balance at beginning of period		(204,156)		(287,677)
Net income for period		144,278		112,998
Common share cash dividends declared and paid, $1.14 per share (2017: $0.96 per share)		(62,895)		(52,235)
Balance at end of period		(122,773)		(226,914)
Treasury common shares				
Balance at beginning of period	—	—	2,066	(42)
Sale of treasury common shares	—	—	(380)	13
Share-based settlements	—	—	(1,686)	29
Balance at end of period	—	—	—	—
Accumulated other comprehensive income (loss)				
Balance at beginning of period		(129,052)		(144,680)
Other comprehensive income (loss), net of taxes		(45,246)		21,006
Balance at end of period		(174,298)		(123,674)
Total shareholders' equity		871,656		802,415

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, 2018	September 30, 2017
Cash flows from operating activities		
Net income	**144,278**	112,998
Adjustments to reconcile net income to operating cash flows		
Depreciation and amortization	**34,814**	37,893
Provision for credit (recovery) losses	**(5,277)**	(487)
Share-based payments and settlements	**9,476**	5,525
Net realized (gains) losses on available-for-sale investments	**(1,352)**	(4,246)
Net (gains) losses on other real estate owned	**251**	(74)
(Increase) in carrying value of equity method investments	**(281)**	(658)
Dividends received from equity method investments	**48**	412
Changes in operating assets and liabilities		
(Increase) decrease in accrued interest receivable	**(2,393)**	(2,562)
(Increase) decrease in other assets	**(11,989)**	23,331
Increase (decrease) in accrued interest payable	**2,741**	550
Increase (decrease) in employee benefit plans and other liabilities	**42,847**	2,210
Cash provided by operating activities	**213,163**	174,892
Cash flows from investing activities		
(Increase) decrease in securities purchased under agreement to resell	**107,076**	(60,782)
Net (increase) decrease in short-term investments other than restricted cash	**170,665**	326,680
Net change in trading investments	**(124)**	(387)
Available-for-sale investments: proceeds from sale	**646,104**	205,263
Available-for-sale investments: proceeds from maturities and pay downs	**400,440**	374,074
Available-for-sale investments: purchases	**(242,087)**	(569,001)
Held-to-maturity investments: proceeds from maturities and pay downs	**119,787**	83,765
Held-to-maturity investments: purchases	**(845,921)**	(303,352)
Net (increase) decrease in loans	**(346,701)**	(30,027)
Additions to premises, equipment and computer software	**(11,886)**	(12,828)
Proceeds from sale of other real estate owned	**5,538**	2,000
Net cash disbursed for business acquisitions	**(20,722)**	—
Cash provided by (used in) investing activities	**(17,831)**	15,405
Cash flows from financing activities		
Net increase (decrease) in demand and term deposit liabilities	**(440,665)**	(729,355)
Proceeds from issuance of common shares, net of underwriting discounts and commissions	**—**	13
Issuance of subordinated capital, net of underwritting fees	**73,218**	—
Repayment of long-term debt	**(47,000)**	—
Proceeds from stock option exercises	**3,162**	4,346
Cash dividends paid on common shares	**(62,895)**	(52,235)
Cash provided by (used in) financing activities	**(474,180)**	(777,231)
Net effect of exchange rates on cash, cash equivalent and restricted cash	**1,311**	42,963
Net (decrease) increase in cash, cash equivalent and restricted cash	**(277,537)**	(543,971)
Cash, cash equivalent and restricted cash: beginning of period	**1,557,733**	2,119,545
Cash, cash equivalent and restricted cash: end of period	**1,280,196**	1,575,574
Components of cash, cash equivalent and restricted cash at end of period		
Cash due from banks	**1,259,098**	1,545,522
Restricted cash included in short-term investments on the consolidated balance sheets	**21,098**	30,052
Total cash, cash equivalent and restricted cash at end of period	**1,280,196**	1,575,574

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.

On September 16, 2016, the Bank's common shares began to trade on the New York Stock Exchange under the symbol "NTB". On September 21, 2016, the Bank completed its offering of 5,957,447 common shares, at $23.50 per share. The proceeds, net of the underwriting discounts and commissions, were $131.6 million.

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 ("US GAAP") for interim financial information and should be read in conjunction with the Bank's audited financial statements for the year ended December 31, 2017.

In the opinion of Management, these unaudited interim consolidated financial statements reflect all adjustments (consisting principally 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 US GAAP requires Management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. While Management believes that the amounts included in the unaudited interim consolidated financial statements reflect its best estimates and assumptions, actual results could differ from those estimates. The Bank's principal estimates include:

• 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

On January 1, 2016, the Bank changed its financial statements' reporting currency from Bermuda dollars to United States ("US") dollars for all periods presented. Assets, liabilities, revenues and expenses denominated in Bermuda dollars are translated to US dollars at par.

The following accounting developments were issued during the nine months ended September 30, 2018 or are accounting standards pending adoption:

In February 2016, the FASB published Accounting Standards Update No. 2016-02 Leases (Topic 842) which requires the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous GAAP. This update is effective for public business entities for fiscal years, and interim periods with in those fiscal years, beginning after December 15, 2018. Early application is permitted. The Bank has determined that this standard will have an effect due to the recognition of lease assets and lease liabilities currently classified as operating leases, which will result in the recognition of assets and corresponding lease liabilities.

In July 2018, the FASB published Accounting Standards Update No. 2018-11 Codification Improvements to Topic 842, Leases Targeted Improvements. The first amendment in this update provides entities with an additional (and optional) transition method to initially apply the new leases standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. An entity's reporting for the comparative periods presented in the financial statements in which it adopts the new leases standard will continue to be in accordance with current GAAP (Topic 840, Leases). The second amendment in this update provides lessors with a practical expedient, by class of underlying asset, to not separate non-lease components from the associated lease component and, instead, to account for those components as a single component if the non-lease components otherwise would be accounted for under the new revenue guidance (Topic 606) and if required conditions are met. For entities that have not adopted Topic 842 before the issuance of this update, the effective date and transition requirements for the amendments in this update related to separating components of a contract are the same as the effective date and transition requirements in update 2016-02. The Bank has determined that standard 2016-02 will have an effect for the Bank. The Bank will adopt ASU 2016-02 and ASU 2018-11 effective January 1, 2019. While the Bank is currently evaluating the impact of adopting ASU 2016-02 and ASU 2018-11, based on the lease portfolio as of September 30, 2018, the Bank anticipates recording right of use lease assets and lease liabilities of approximately $17 million on its consolidated balance sheets, with no material impact to its consolidated statements of operations. The Bank will apply the optional transition method from ASU 2018-11 and apply the new lease standard as of January 1, 2019 with comparative periods presented under current GAAP. The Bank does not expect a material adjustment to opening retained earnings upon adoption. However, the ultimate impact of adopting ASU 2016-02 will depend on the Bank's lease portfolio as of the adoption date.

In June 2016, the FASB published Accounting Standards Update No. 2016-13 Financial Instruments – Credit Losses. The amendments in this update provide a new impairment model, known as the current expected credit loss model that is based on expected losses rather than incurred losses. The amendments in this update are also intended to reduce the complexity and reduce the number of impairment models entities use to account for debt instruments. For public business entities that meet the GAAP definition of an SEC filer, the effective date for this update for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The Bank is evaluating ASU No. 2016-13 and has initiated a working group with multiple members from applicable departments to evaluate the requirements of the new standard, planning for loss modeling requirements consistent with lifetime expected loss estimates, and assessing the impact it will have on current processes. The extent of the impact upon adoption will likely depend on the characteristics of the Bank's loan portfolio and economic conditions at that date, as well as forecasted conditions thereafter.

In August 2018, the FASB published Accounting Standards Update No. 2018-14 Compensation-Retirement Benefits-Defined Benefit Plans-General (Subtopic 715-20) which includes amendments that remove disclosures that no longer are considered cost beneficial, clarify the specific requirements of disclosures, and add disclosure requirements identified as relevant. This update is effective for public business entities for fiscal years beginning after December 15, 2020. Early adoption is permitted. The Bank has determined that this standard will have an effect on certain year-end disclosures in the Employee benefit plans note and plans to early adopt for the year ending December 31, 2018.

(In thousands of US dollars, unless otherwise stated)

Note 3: Cash due from banks

	September 30, 2018			December 31, 2017		
	Bermuda	**Non-Bermuda**	**Total**	Bermuda	Non-Bermuda	Total
Non-interest bearing						
Cash and demand deposits with banks	**25,788**	**63,628**	**89,416**	24,189	65,192	89,381
Interest bearing[1]						
Demand deposits with banks	**255,400**	**107,901**	**363,301**	215,363	124,893	340,256
Cash equivalents	**130,281**	**676,100**	**806,381**	330,247	775,254	1,105,501
Sub-total - Interest bearing	**385,681**	**784,001**	**1,169,682**	545,610	900,147	1,445,757
Total cash due from banks	**411,469**	**847,629**	**1,259,098**	569,799	965,339	1,535,138

[1] Interest bearing cash due from banks includes certain demand deposits with banks as at September 30, 2018 in the amount of $251.8 million (December 31, 2017: $203.3 million) that are earning interest at a negligible rate.

Note 4: Short-term investments

	September 30, 2018			December 31, 2017		
	Bermuda	**Non-Bermuda**	**Total**	Bermuda	Non-Bermuda	Total
Unrestricted						
Maturing within three months	**19,303**	**6,925**	**26,228**	67,528	71,986	139,514
Maturing between three to six months	**—**	**25,332**	**25,332**	19,841	67,035	86,876
Maturing between six to twelve months	**—**	**3,252**	**3,252**	—	—	—
Total unrestricted short-term investments	**19,303**	**35,509**	**54,812**	87,369	139,021	226,390
Affected by drawing restrictions related to minimum reserve and derivative margin requirements						
Non-interest earning demand deposits	**—**	**8,003**	**8,003**	—	—	—
Interest earning demand and term deposits	**11,725**	**1,370**	**13,095**	22,053	1,541	23,594
Total restricted short-term investments	**11,725**	**9,373**	**21,098**	22,053	1,541	23,594
Total short-term investments	**31,028**	**44,882**	**75,910**	109,422	140,562	249,984

(In thousands of US dollars, unless otherwise stated)

Note 5: Investment in securities

Amortized Cost, Carrying Amount and Fair Value

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

	September 30, 2018				December 31, 2017			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Trading								
Mutual funds	5,724	1,656	(433)	6,947	5,724	1,616	(516)	6,824
Total trading	5,724	1,656	(433)	6,947	5,724	1,616	(516)	6,824
Available-for-sale								
US government and federal agencies	2,076,444	4,008	(53,568)	2,026,884	2,720,581	8,924	(20,401)	2,709,104
Non-US governments debt securities	25,815	32	(395)	25,452	26,516	118	(386)	26,248
Corporate debt securities	95,303	—	(1,759)	93,544	243,999	153	(780)	243,372
Asset-backed securities - Student loans	13,290	—	(664)	12,626	13,290	—	(797)	12,493
Commercial mortgage-backed securities	141,642	7	(4,104)	137,545	142,740	56	(1,296)	141,500
Residential mortgage-backed securities	165,153	—	(5,485)	159,668	186,049	309	(1,635)	184,723
Total available-for-sale	2,517,647	4,047	(65,975)	2,455,719	3,333,175	9,560	(25,295)	3,317,440
Held-to-maturity[1]								
US government and federal agencies	2,113,728	757	(61,871)	2,052,614	1,381,955	4,813	(9,414)	1,377,354
Total held-to-maturity	2,113,728	757	(61,871)	2,052,614	1,381,955	4,813	(9,414)	1,377,354

[1] For the nine months ended September 30, 2018 and the year ended December 31, 2017, non-credit impairments recognized in accumulated other comprehensive loss ("AOCL") for HTM investments were nil.

Investments with Unrealized Loss Positions

The Bank does not believe that the AFS and HTM investment securities that were in an unrealized loss position as of September 30, 2018 (and December 31, 2017), which were comprised of 226 securities representing 85% of the AFS and HTM portfolios' fair value (December 31, 2017: 161 and 59%, respectively), represent an other-than-temporary impairment ("OTTI"). Total gross unrealized losses were 3.4% of the fair value of affected securities (December 31, 2017: 1.3%) and were attributable primarily to changes in market interest rates, relative to when the investment securities were purchased, and not due to the credit quality of the investment 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.

The unrealized losses in **Corporate debt securities** relate primarily to 7 debt securities that are all of investment grade with ratings ranging from BBB+ to A+. Management believes that the value of these securities will recover and the current unrealized loss positions are a result of interest rate movements.

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 **Commercial mortgage-backed securities** relate to 10 senior securities rated AAA or AA+ that possess significant subordination, a form of credit enhancement expressed hereafter as the percentage of pool losses that can occur before the senior securities held by the Bank will incur its first dollar of principal loss. No credit losses were recognized as for eight of these securities the weighted average credit support and the weighted average loan-to-value ratios ("LTV") range from 25% - 38% and 47% - 71%, respectively. In respect of the two remaining securities, one is fully defeased with the other having an LTV of less than 30%.

Investments in **Residential mortgage-backed securities** relate to 17 securities which are rated AAA or AA+ 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 LTV ratios range from 5% - 20% and 54% - 66%, respectively. Current credit support is significantly greater than any delinquencies experienced on the underlying mortgages.

(In thousands of US dollars, unless otherwise stated)

In the following tables, debt securities with unrealized losses that are not deemed to be OTTI 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.

	Less than 12 months		12 months or more			
September 30, 2018	**Fair value**	**Gross unrealized losses**	**Fair value**	**Gross unrealized losses**	**Total fair value**	**Total gross unrealized losses**
Available-for-sale securities with unrealized losses						
US government and federal agencies	**677,007**	**(13,991)**	**841,101**	**(39,577)**	**1,518,108**	**(53,568)**
Non-US governments debt securities	**—**	**—**	**22,360**	**(395)**	**22,360**	**(395)**
Corporate debt securities	**29,874**	**(159)**	**63,671**	**(1,600)**	**93,545**	**(1,759)**
Asset-backed securities - Student loans	**—**	**—**	**12,626**	**(664)**	**12,626**	**(664)**
Commercial mortgage-backed securities	**86,175**	**(2,807)**	**50,544**	**(1,297)**	**136,719**	**(4,104)**
Residential mortgage-backed securities	**77,893**	**(2,700)**	**81,775**	**(2,785)**	**159,668**	**(5,485)**
Total available-for-sale securities with unrealized losses	**870,949**	**(19,657)**	**1,072,077**	**(46,318)**	**1,943,026**	**(65,975)**
Held-to-maturity securities with unrealized losses						
US government and federal agencies	**1,395,954**	**(34,711)**	**471,011**	**(27,160)**	**1,866,965**	**(61,871)**

	Less than 12 months		12 months or more			
December 31, 2017	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
Available-for-sale securities with unrealized losses						
US government and federal agencies	497,307	(2,461)	1,014,252	(17,940)	1,511,559	(20,401)
Non-US governments debt securities	—	—	22,360	(386)	22,360	(386)
Corporate debt securities	86,501	(225)	39,479	(555)	125,980	(780)
Asset-backed securities - Student loans	—	—	12,493	(797)	12,493	(797)
Commercial mortgage-backed securities	98,822	(709)	36,766	(587)	135,588	(1,296)
Residential mortgage-backed securities	71,604	(486)	56,287	(1,149)	127,891	(1,635)
Total available-for-sale securities with unrealized losses	754,234	(3,881)	1,181,637	(21,414)	1,935,871	(25,295)
Held-to-maturity securities with unrealized losses						
US government and federal agencies	549,532	(2,862)	288,830	(6,552)	838,362	(9,414)

(In thousands of US dollars, unless otherwise stated)

Investment Maturities

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

	Remaining term to maturity					
September 30, 2018	**Within 3 months**	**3 to 12 months**	**1 to 5 years**	**5 to 10 years**	**No specific or single maturity**	**Carrying amount**
Trading						
Mutual funds	—	—	—	—	6,947	6,947
Available-for-sale						
US government and federal agencies	—	—	34,107	—	1,992,777	2,026,884
Non-US governments debt securities	—	—	3,092	22,360	—	25,452
Corporate debt securities	14,986	14,907	63,651	—	—	93,544
Asset-backed securities - Student loans	—	—	—	—	12,626	12,626
Commercial mortgage-backed securities	—	—	—	—	137,545	137,545
Residential mortgage-backed securities	—	—	—	—	159,668	159,668
Total available-for-sale	14,986	14,907	100,850	22,360	2,302,616	2,455,719
Held-to-maturity						
US government and federal agencies	—	—	—	—	2,113,728	2,113,728
Total investments	14,986	14,907	100,850	22,360	4,423,291	4,576,394
Total by currency						
US dollars	14,986	14,907	100,850	22,360	4,422,999	4,576,102
Other	—	—	—	—	292	292
Total investments	14,986	14,907	100,850	22,360	4,423,291	4,576,394

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, 2018		December 31, 2017	
Pledged Investments	**Amortized cost**	**Fair value**	Amortized cost	Fair value
Available-for-sale	106,785	104,674	149,999	150,900
Held-to-maturity	223,385	212,989	202,303	201,523

Sale Proceeds and Realized Gains and Losses of AFS Securities	Nine months ended September 30, 2018		
	Sale proceeds	**Gross realized gains**	**Gross realized (losses)**
US government and federal agencies	621,467	1,271	(1,037)
Corporate debt securities	24,975	—	(87)
Pass-through note	1,205	1,205	—
Total	647,647	2,476	(1,124)

	Nine months ended September 30, 2017		
	Sale proceeds	Gross realized gains	Gross realized (losses)
Corporate debt securities	202,706	1,689	—
Pass-through note	2,557	2,557	—
Total	205,263	4,246	—

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.

(In thousands of US dollars, unless otherwise stated)

Note 6: Loans

The "Bermuda" and "Non-Bermuda" classifications purpose is to reflect management segment reporting as described in Note 12: Segmented information.

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, business and government loans are generally repayable over terms not exceeding five years. 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, 2018 is 5.35% (December 31, 2017: 5.09%).

	September 30, 2018			December 31, 2017		
	Bermuda	Non-Bermuda	Total	Bermuda	Non-Bermuda	Total
Commercial loans						
Government	230,069	13,042	243,111	139,987	13,414	153,401
Commercial and industrial	271,391	213,869	485,260	197,251	173,701	370,952
Commercial overdrafts	15,967	6,034	22,001	18,649	2,874	21,523
Total gross commercial loans	517,427	232,945	750,372	355,887	189,989	545,876
Less specific allowance for credit losses	(2,829)	(1,687)	(4,516)	(2,866)	—	(2,866)
Net commercial loans	514,598	231,258	745,856	353,021	189,989	543,010
Commercial real estate loans						
Commercial mortgage	324,857	199,767	524,624	346,094	189,741	535,835
Construction	28,224	43,965	72,189	24,500	23,743	48,243
Total gross commercial real estate loans	353,081	243,732	596,813	370,594	213,484	584,078
Less specific allowance for credit losses	(600)	—	(600)	(550)	(33)	(583)
Net commercial real estate loans	352,481	243,732	596,213	370,044	213,451	583,495
Consumer loans						
Automobile financing	13,307	6,969	20,276	13,113	6,182	19,295
Credit card	58,939	23,289	82,228	57,777	21,228	79,005
Overdrafts	4,337	2,712	7,049	5,490	2,871	8,361
Other consumer	31,025	39,720	70,745	29,818	51,196	81,014
Total gross consumer loans	107,608	72,690	180,298	106,198	81,477	187,675
Less specific allowance for credit losses	(274)	(21)	(295)	(274)	—	(274)
Net consumer loans	107,334	72,669	180,003	105,924	81,477	187,401
Residential mortgage loans	1,125,370	1,467,055	2,592,425	1,156,134	1,338,566	2,494,700
Less specific allowance for credit losses	(8,378)	(223)	(8,601)	(8,681)	(1,220)	(9,901)
Net residential mortgage loans	1,116,992	1,466,832	2,583,824	1,147,453	1,337,346	2,484,799
Total gross loans	2,103,486	2,016,422	4,119,908	1,988,813	1,823,516	3,812,329
Less specific allowance for credit losses	(12,081)	(1,931)	(14,012)	(12,371)	(1,253)	(13,624)
Less general allowance for credit losses	(9,715)	(4,538)	(14,253)	(16,339)	(5,504)	(21,843)
Net loans	2,081,690	2,009,953	4,091,643	1,960,103	1,816,759	3,776,862

(In thousands of US dollars, unless otherwise stated)

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

The following tables summarize the past due status of the loans as at September 30, 2018 and December 31, 2017. 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, 2018	30 - 59 days	60 - 89 days	More than 90 days	Total past due loans	Total current	Total loans
Commercial loans						
Government	—	—	—	—	243,111	243,111
Commercial and industrial	—	33	7,446	7,479	477,781	485,260
Commercial overdrafts	—	—	1	1	22,000	22,001
Total commercial loans	—	33	7,447	7,480	742,892	750,372
Commercial real estate loans						
Commercial mortgage	791	—	3,013	3,804	520,820	524,624
Construction	—	—	—	—	72,189	72,189
Total commercial real estate loans	791	—	3,013	3,804	593,009	596,813
Consumer loans						
Automobile financing	39	2	227	268	20,008	20,276
Credit card	337	145	225	707	81,521	82,228
Overdrafts	—	—	2	2	7,047	7,049
Other consumer	13	93	931	1,037	69,708	70,745
Total consumer loans	389	240	1,385	2,014	178,284	180,298
Residential mortgage loans	13,366	3,924	31,950	49,240	2,543,185	2,592,425
Total gross loans	14,546	4,197	43,795	62,538	4,057,370	4,119,908

December 31, 2017	30 - 59 days	60 - 89 days	More than 90 days	Total past due loans	Total current	Total loans
Commercial loans						
Government	—	—	—	—	153,401	153,401
Commercial and industrial	—	1,005	7,481	8,486	362,466	370,952
Commercial overdrafts	—	—	1	1	21,522	21,523
Total commercial loans	—	1,005	7,482	8,487	537,389	545,876
Commercial real estate loans						
Commercial mortgage	392	—	4,781	5,173	530,662	535,835
Construction	—	—	—	—	48,243	48,243
Total commercial real estate loans	392	—	4,781	5,173	578,905	584,078
Consumer loans						
Automobile financing	7	12	226	245	19,050	19,295
Credit card	422	177	170	769	78,236	79,005
Overdrafts	—	—	4	4	8,357	8,361
Other consumer	797	329	441	1,567	79,447	81,014
Total consumer loans	1,226	518	841	2,585	185,090	187,675
Residential mortgage loans	19,121	10,142	35,658	64,921	2,429,779	2,494,700
Total gross loans	20,739	11,665	48,762	81,166	3,731,163	3,812,329

Loans' Credit Quality

The four credit quality classifications set out in the following tables (which exclude purchased credit-impaired loans) 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 assigned.

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.

(In thousands of US dollars, unless otherwise stated)

A **special mention** loan shall mean a loan under close monitoring by the Bank's management. 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.

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.

September 30, 2018	**Pass**	**Special mention**	**Substandard**	**Non-accrual**	**Total gross recorded investments**
Commercial loans					
Government	**239,361**	**—**	**—**	**3,750**	**243,111**
Commercial and industrial	**472,489**	**4,136**	**1,156**	**7,479**	**485,260**
Commercial overdrafts	**19,903**	**1,592**	**505**	**1**	**22,001**
Total commercial loans	**731,753**	**5,728**	**1,661**	**11,230**	**750,372**
Commercial real estate loans					
Commercial mortgage	**483,282**	**34,835**	**3,494**	**3,013**	**524,624**
Construction	**72,189**	**—**	**—**	**—**	**72,189**
Total commercial real estate loans	**555,471**	**34,835**	**3,494**	**3,013**	**596,813**
Consumer loans					
Automobile financing	**19,884**	**148**	**17**	**227**	**20,276**
Credit card	**82,003**	**—**	**225**	**—**	**82,228**
Overdrafts	**6,859**	**188**	**—**	**2**	**7,049**
Other consumer	**67,685**	**1,914**	**415**	**731**	**70,745**
Total consumer loans	**176,431**	**2,250**	**657**	**960**	**180,298**
Residential mortgage loans	**2,440,055**	**45,385**	**78,011**	**28,974**	**2,592,425**
Total gross recorded loans	**3,903,710**	**88,198**	**83,823**	**44,177**	**4,119,908**

December 31, 2017	Pass	Special mention	Substandard	Non-accrual	Total gross recorded investments
Commercial loans					
Government	149,651	—	3,750	—	153,401
Commercial and industrial	357,298	4,864	1,309	7,481	370,952
Commercial overdrafts	17,558	3,569	395	1	21,523
Total commercial loans	524,507	8,433	5,454	7,482	545,876
Commercial real estate loans					
Commercial mortgage	464,283	63,663	3,108	4,781	535,835
Construction	48,243	—	—	—	48,243
Total commercial real estate loans	512,526	63,663	3,108	4,781	584,078
Consumer loans					
Automobile financing	18,816	232	21	226	19,295
Credit card	78,835	—	170	—	79,005
Overdrafts	8,263	94	—	4	8,361
Other consumer	79,080	1,419	31	484	81,014
Total consumer loans	184,994	1,745	222	714	187,675
Residential mortgage loans	2,351,845	35,996	75,985	30,874	2,494,700
Total gross recorded loans	3,573,872	109,837	84,769	43,851	3,812,329

(In thousands of US dollars, unless otherwise stated)

Evaluation of Loans For Impairment	September 30, 2018		December 31, 2017	
	Individually evaluated	Collectively evaluated	Individually evaluated	Collectively evaluated
Commercial	12,205	738,167	8,487	537,389
Commercial real estate	6,508	590,305	7,889	576,189
Consumer	1,376	178,922	1,138	186,537
Residential mortgage	99,789	2,492,636	99,652	2,395,048
Total gross loans	119,878	4,000,030	117,166	3,695,163

Changes in General and Specific Allowances For Credit Losses

	Nine months ended September 30, 2018				
	Commercial	Commercial real estate	Consumer	Residential mortgage	Total
Allowances at beginning of period	6,309	10,360	888	17,910	35,467
Provision taken (released)	1,282	(4,228)	137	(2,468)	(5,277)
Recoveries	8	28	439	177	652
Charge-offs	—	—	(589)	(1,942)	(2,531)
Other	(7)	(3)	—	(36)	(46)
Allowances at end of period	7,592	6,157	875	13,641	28,265
Allowances at end of period: individually evaluated for impairment	4,516	600	295	8,601	14,012
Allowances at end of period: collectively evaluated for impairment	3,076	5,557	580	5,040	14,253

	Nine months ended September 30, 2017				
	Commercial	Commercial real estate	Consumer	Residential mortgage	Total
Allowances at beginning of period	3,377	16,224	965	23,681	44,247
Provision taken (released)	420	(3,041)	468	1,666	(487)
Recoveries	—	—	796	159	955
Charge-offs	(35)	—	(1,499)	(1,302)	(2,836)
Other	6	25	2	78	111
Allowances at end of period	3,768	13,208	732	24,282	41,990
Allowances at end of period: individually evaluated for impairment	570	783	274	11,672	13,299
Allowances at end of period: collectively evaluated for impairment	3,198	12,425	458	12,610	28,691

(In thousands of US dollars, unless otherwise stated)

Non-Performing Loans (excluding purchased credit-impaired loans)	September 30, 2018			December 31, 2017		
	Non-accrual	Past due more than 90 days and accruing	Total non-performing loans	Non-accrual	Past due more than 90 days and accruing	Total non-performing loans
Commercial loans						
Government	3,750	—	3,750	—	—	—
Commercial and industrial	7,479	—	7,479	7,481	—	7,481
Commercial overdrafts	1	—	1	1	—	1
Total commercial loans	11,230	—	11,230	7,482	—	7,482
Commercial real estate loans						
Commercial mortgage	3,013	—	3,013	4,781	—	4,781
Consumer loans						
Automobile financing	227	—	227	226	—	226
Credit card	—	225	225	—	170	170
Overdrafts	2	—	2	4	—	4
Other consumer	731	—	731	484	—	484
Total consumer loans	960	225	1,185	714	170	884
Residential mortgage loans	28,974	4,360	33,334	30,874	4,186	35,060
Total non-performing loans	44,177	4,585	48,762	43,851	4,356	48,207

Impaired Loans (excluding purchased credit-impaired loans)

A loan is considered to be impaired when, based on current information and events, the Bank determines that it will not be able to collect all amounts due according to the original loan contract, including scheduled interest payments. Impaired loans include all non-accrual loans and all loans modified in a troubled debt restructuring ("TDR") even if full collectability is expected following the restructuring. During the nine months ended September 30, 2018, the amount of gross interest income that would have been recorded had impaired loans been current was $2.0 million (September 30, 2017: $1.8 million).

	Impaired loans with an allowance				Total impaired loans		
September 30, 2018	Gross recorded investment	Specific allowance	Net loans	Gross recorded investment of impaired loans without an allowance	Gross recorded investment	Specific allowance	Net loans
Commercial loans							
Government	3,750	(1,688)	2,062	—	3,750	(1,688)	2,062
Commercial and industrial	7,446	(2,828)	4,618	1,009	8,455	(2,828)	5,627
Commercial overdrafts	—	—	—	1	1	—	1
Total commercial loans	11,196	(4,516)	6,680	1,010	12,206	(4,516)	7,690
Commercial real estate loans							
Commercial mortgage	1,092	(600)	492	5,415	6,507	(600)	5,907
Consumer loans							
Automobile financing	134	(75)	59	93	227	(75)	152
Overdrafts	—	—	—	2	2	—	2
Other consumer	199	(199)	—	532	731	(199)	532
Total consumer loans	333	(274)	59	627	960	(274)	686
Residential mortgage loans	47,922	(8,456)	39,466	49,116	97,038	(8,456)	88,582
Total impaired loans	60,543	(13,846)	46,697	56,168	116,711	(13,846)	102,865

Specific allowance excludes $0.2 million recognized relating to purchased credit-impaired loans.

(In thousands of US dollars, unless otherwise stated)

	Impaired loans with an allowance			Gross recorded investment of impaired loans without an allowance	Total impaired loans		
December 31, 2017	Gross recorded investment	Specific allowance	Net loans		Gross recorded investment	Specific allowance	Net loans
Commercial loans							
Commercial and industrial	7,475	(2,866)	4,609	1,011	8,486	(2,866)	5,620
Commercial overdrafts	—	—	—	1	1	—	1
Total commercial loans	7,475	(2,866)	4,609	1,012	8,487	(2,866)	5,621
Commercial real estate loans							
Commercial mortgage	1,585	(583)	1,002	6,304	7,889	(583)	7,306
Consumer loans							
Automobile financing	138	(75)	63	88	226	(75)	151
Overdrafts	—	—	—	4	4	—	4
Other consumer	199	(199)	—	285	484	(199)	285
Total consumer loans	337	(274)	63	377	714	(274)	440
Residential mortgage loans	53,698	(9,630)	44,068	42,055	95,753	(9,630)	86,123
Total impaired loans	63,095	(13,353)	49,742	49,748	112,843	(13,353)	99,490

Specific allowance excludes $0.3 million recognized relating to purchased credit-impaired loans.

Average Impaired Loan Balances and Related Recognized Interest Income

	September 30, 2018		December 31, 2017	
	Average gross recorded investment	Interest income recognized[1]	Average gross recorded investment	Interest income recognized[1]
Commercial loans				
Government	3,750	—	—	—
Commercial and industrial	8,471	50	5,057	63
Commercial overdrafts	1	—	2	—
Total commercial loans	12,222	50	5,059	63
Commercial real estate loans				
Commercial mortgage	7,198	225	7,778	222
Consumer loans				
Automobile financing	227	—	256	—
Overdrafts	3	—	11	—
Other consumer	608	—	598	—
Total consumer loans	838	—	865	—
Residential mortgage loans	96,396	3,457	89,063	4,378
Total impaired loans	116,654	3,732	102,765	4,663

[1] All interest income recognized on impaired loans relate to loans previously modified in a TDR.

Loans Modified in a TDR

As at September 30, 2018, the Bank had one loan which was formerly a residential mortgage that was modified in a TDR during the preceding 12 months that subsequently defaulted (i.e. 90 days or more past due following a modification) with a recorded investment of $0.6 million. As at December 31, 2017, the Bank had no loans that were modified in a TDR during the preceding 12 months that subsequently defaulted.

(In thousands of US dollars, unless otherwise stated)

TDRs entered into during the period

	Nine months ended September 30, 2018			
	Number of contracts	Pre-modification recorded investment	Modification: interest capitalization	Post-modification recorded investment
Residential mortgage loans	16	7,106	750	7,856
Total loans modified in a TDR	16	7,106	750	7,856

	Nine months ended September 30, 2017			
	Number of contracts	Pre-modification recorded investment	Modification: interest capitalization	Post-modification recorded investment
Commercial loans	2	386	—	386
Commercial real estate loans	2	1,112	—	1,112
Residential mortgage loans	33	20,382	1,276	21,658
Total loans modified in a TDR	37	21,880	1,276	23,156

	September 30, 2018		December 31, 2017	
TDRs outstanding	Accrual	Non-accrual	Accrual	Non-accrual
Commercial loans	976	—	1,005	—
Commercial real estate loans	3,494	1,025	3,108	1,471
Residential mortgage loans	68,064	6,357	64,879	5,623
Total TDRs outstanding	72,534	7,382	68,992	7,094

Purchased Credit-Impaired Loans

The Bank acquired certain credit-impaired loans as part of the November 7, 2014 acquisition of substantially all retail loans of HSBC Bank (Cayman) Limited. The accretable difference (or "accretable yield") represents the excess of a loan's cash flows expected to be collected over the loan's carrying amount.

	Nine months ended September 30, 2018			
	Contractual principal	Non-accretable difference	Accretable difference	Carrying amount
Balance at beginning of period	6,001	(1,239)	(711)	4,051
Advances and increases in cash flows expected to be collected	30	30	(30)	30
Reductions resulting from repayments	(1,462)	191	87	(1,184)
Reductions resulting from changes in allowances for credit losses	—	105	—	105
Balance at end of period	4,569	(913)	(654)	3,002

	Year ended December 31, 2017			
	Contractual principal	Non-accretable difference	Accretable difference	Carrying amount
Balance at beginning of period	8,016	(1,617)	(811)	5,588
Advances and increases in cash flows expected to be collected	36	48	(48)	36
Reductions resulting from repayments	(1,581)	307	148	(1,126)
Reductions resulting from changes in allowances for credit losses	—	(99)	—	(99)
Reductions resulting from charge-offs	(470)	122	—	(348)
Balance at end of period	6,001	(1,239)	(711)	4,051

(In thousands of US dollars, unless otherwise stated)

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 tables summarize the credit exposure of the Bank by business sector and by geographic region. The on-balance sheet exposure amounts disclosed are net of specific allowances and the off-balance sheet exposure amounts disclosed are gross of collateral held.

	September 30, 2018			December 31, 2017		
Business sector	**Loans**	**Off-balance sheet**	**Total credit exposure**	Loans	Off-balance sheet	Total credit exposure
Banks and financial services	**574,581**	**430,700**	**1,005,281**	459,132	390,278	849,410
Commercial and merchandising	**306,112**	**194,447**	**500,559**	261,560	193,583	455,143
Governments	**242,119**	**—**	**242,119**	153,952	85,807	239,759
Individuals	**2,300,775**	**120,610**	**2,421,385**	2,274,632	114,215	2,388,847
Primary industry and manufacturing	**90,829**	**766**	**91,595**	59,532	9,567	69,099
Real estate	**426,795**	**1,836**	**428,631**	439,595	2,225	441,820
Hospitality industry	**158,818**	**3,739**	**162,557**	144,808	73	144,881
Transport and communication	**5,867**	**—**	**5,867**	5,494	—	5,494
Sub-total	**4,105,896**	**752,098**	**4,857,994**	3,798,705	795,748	4,594,453
General allowance	**(14,253)**	**—**	**(14,253)**	(21,843)	—	(21,843)
Total	**4,091,643**	**752,098**	**4,843,741**	3,776,862	795,748	4,572,610

	September 30, 2018				December 31, 2017			
Geographic region	**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	**23,842**	**—**	**—**	**23,842**	113,920	—	—	113,920
Bermuda	**64,125**	**2,245,928**	**325,025**	**2,635,078**	14,512	2,132,918	418,850	2,566,280
Canada	**198,914**	**—**	**—**	**198,914**	386,322	—	—	386,322
Cayman	**23,926**	**714,377**	**233,876**	**972,179**	67,942	669,767	229,731	967,440
Guernsey	**2**	**301,986**	**15,779**	**317,767**	3	292,806	41,648	334,457
Japan	**23,938**	**—**	**—**	**23,938**	12,852	—	—	12,852
New Zealand	**841**	**—**	**—**	**841**	7,951	—	—	7,951
Norway	**87,884**	**—**	**—**	**87,884**	25,440	—	—	25,440
Saint Lucia	**—**	**119,775**	**—**	**119,775**	—	120,000	—	120,000
Switzerland	**7,223**	**—**	**—**	**7,223**	5,743	—	—	5,743
The Bahamas	**1,584**	**14,731**	**—**	**16,315**	1,652	17,451	—	19,103
United Kingdom	**660,182**	**707,036**	**177,418**	**1,544,636**	775,853	562,013	105,519	1,443,385
United States	**309,771**	**—**	**—**	**309,771**	544,703	—	—	544,703
Other	**4,469**	**2,063**	**—**	**6,532**	6,998	3,750	—	10,748
Sub-total	**1,406,701**	**4,105,896**	**752,098**	**6,264,695**	1,963,891	3,798,705	795,748	6,558,344
General allowance	**—**	**(14,253)**	**—**	**(14,253)**	—	(21,843)	—	(21,843)
Total	**1,406,701**	**4,091,643**	**752,098**	**6,250,442**	1,963,891	3,776,862	795,748	6,536,501

(In thousands of US dollars, unless otherwise stated)

Note 8: Customer deposits and deposits from banks

By Maturity

	Demand			Term					
September 30, 2018	**Non-interest bearing**	**Interest bearing**	**Total demand deposits**	**Within 3 months**	**3 to 6 months**	**6 to 12 months**	**After 12 months**	**Total term deposits**	**Total deposits**
Customers									
Bermuda									
Demand or less than $100k[1]	1,498,308	2,528,639	4,026,947	10,572	6,825	7,642	14,893	39,932	4,066,879
Term - $100k or more	N/A	N/A	—	617,970	86,026	63,919	37,964	805,879	805,879
Total Bermuda	1,498,308	2,528,639	4,026,947	628,542	92,851	71,561	52,857	845,811	4,872,758
Non-Bermuda									
Demand or less than $100k	633,899	2,664,083	3,297,982	19,391	5,304	5,070	635	30,400	3,328,382
Term and $100k or more	N/A	N/A	—	477,365	101,807	256,675	8,382	844,229	844,229
Total non-Bermuda	633,899	2,664,083	3,297,982	496,756	107,111	261,745	9,017	874,629	4,172,611
Total customer deposits	2,132,207	5,192,722	7,324,929	1,125,298	199,962	333,306	61,874	1,720,440	9,045,369
Banks									
Bermuda									
Demand or less than $100k	5,915	—	5,915	—	—	—	—	—	5,915
Non-Bermuda									
Demand or less than $100k	—	7,440	7,440	—	—	—	—	—	7,440
Term and $100k or more	N/A	N/A	—	7,179	—	101	—	7,280	7,280
Total non-Bermuda	—	7,440	7,440	7,179	—	101	—	7,280	14,720
Total bank deposits	5,915	7,440	13,355	7,179	—	101	—	7,280	20,635
Total deposits	2,138,122	5,200,162	7,338,284	1,132,477	199,962	333,407	61,874	1,727,720	9,066,004

	Demand			Term					
December 31, 2017	Non-interest bearing	Interest bearing	Total demand deposits	Within 3 months	3 to 6 months	6 to 12 months	After 12 months	Total term deposits	Total deposits
Customers									
Bermuda									
Demand or less than $100k[1]	1,840,201	2,578,411	4,418,612	13,983	4,267	8,640	13,984	40,874	4,459,486
Term - $100k or more	N/A	N/A	—	646,751	33,495	75,235	37,857	793,338	793,338
Total Bermuda	1,840,201	2,578,411	4,418,612	660,734	37,762	83,875	51,841	834,212	5,252,824
Non-Bermuda									
Demand or less than $100k	639,525	2,755,517	3,395,042	19,147	5,202	4,762	781	29,892	3,424,934
Term and $100k or more	N/A	N/A	—	657,134	88,650	94,245	6,205	846,234	846,234
Total non-Bermuda	639,525	2,755,517	3,395,042	676,281	93,852	99,007	6,986	876,126	4,271,168
Total customer deposits	2,479,726	5,333,928	7,813,654	1,337,015	131,614	182,882	58,827	1,710,338	9,523,992
Banks									
Bermuda									
Demand or less than $100k	442	—	442	—	—	—	—	—	442
Non-Bermuda									
Demand or less than $100k	—	7,704	7,704	—	—	—	—	—	7,704
Term and $100k or more	N/A	N/A	—	4,220	—	100	—	4,320	4,320
Total non-Bermuda	—	7,704	7,704	4,220	—	100	—	4,320	12,024
Total bank deposits	442	7,704	8,146	4,220	—	100	—	4,320	12,466
Total deposits	2,480,168	5,341,632	7,821,800	1,341,235	131,614	182,982	58,827	1,714,658	9,536,458

[1] As at September 30, 2018, $225 million (December 31, 2017: $225 million) of the Demand deposits - Interest bearing bear a special negligible interest rate. The weighted-average interest rate on interest-bearing demand deposits as at September 30, 2018 is 0.03% (December 31, 2017: 0.02%).

(In thousands of US dollars, unless otherwise stated)

By Type and Segment	September 30, 2018			December 31, 2017		
	Payable on demand	Payable on a fixed date	Total	Payable on demand	Payable on a fixed date	Total
Bermuda						
Customers	4,026,947	845,811	4,872,758	4,418,649	834,211	5,252,860
Banks	5,915	—	5,915	442	—	442
Cayman						
Customers	2,522,613	385,787	2,908,400	2,529,499	405,215	2,934,714
Banks	7,433	7,280	14,713	7,704	4,320	12,024
Channel Islands and the UK						
Customers	775,369	488,842	1,264,211	865,506	470,912	1,336,418
Banks	7	—	7	—	—	—
Total Customers	7,324,929	1,720,440	9,045,369	7,813,654	1,710,338	9,523,992
Total Banks	13,355	7,280	20,635	8,146	4,320	12,466
Total deposits	7,338,284	1,727,720	9,066,004	7,821,800	1,714,658	9,536,458

Note 9: Employee benefit plans

The Bank maintains trusteed 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 expense related to these plans is included in the consolidated statements of operations under salaries and other employee benefits. 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 2018 Bank contribution and estimated benefit payments for the next ten years under the pension and post-retirement plans in its financial statements for the year-ended December 31, 2017. During the nine months ended September 30, 2018, there have been no material revisions to these estimates.

		Three months ended		Nine months ended	
	Line item in the consolidated statements of operations	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Defined benefit pension expense (income)					
Interest cost	Non-service employee benefits expense	1,232	1,348	3,750	4,001
Expected return on plan assets	Non-service employee benefits expense	(2,163)	(2,061)	(6,574)	(6,119)
Amortization of net actuarial loss	Non-service employee benefits expense	524	560	1,575	1,676
Settlement loss	Net other gains (losses)	—	—	1,548	—
Total defined benefit pension expense (income)		(407)	(153)	299	(442)
Post-retirement medical benefit expense (income)					
Service cost	Salaries and other employee benefits	16	17	47	48
Interest cost	Non-service employee benefits expense	1,076	1,174	3,229	3,527
Amortization of net actuarial losses	Non-service employee benefits expense	654	879	1,961	2,636
Amortization of prior service credit	Non-service employee benefits expense	9	(189)	29	(569)
Total post-retirement medical benefit expense (income)		1,755	1,881	5,266	5,642

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.

(In thousands of US dollars, unless otherwise stated)

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 possible loan losses.

The Bank has a facility by 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, 2018, $138.6 million (December 31, 2017: $77.0 million) of standby letters of credit were issued under this facility.

Outstanding unfunded commitments to extend credit	September 30, 2018	December 31, 2017
Commitments to extend credit	501,702	602,740
Documentary and commercial letters of credit	1,533	1,263
Total unfunded commitments to extend credit	**503,235**	604,003

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.

	September 30, 2018			December 31, 2017		
Outstanding financial guarantees	Gross	Collateral	Net	Gross	Collateral	Net
Standby letters of credit	246,176	239,026	7,150	186,408	178,158	8,250
Letters of guarantee	2,687	2,601	86	5,337	5,251	86
Total	**248,863**	**241,627**	**7,236**	191,745	183,409	8,336

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 collaterals involved are appropriate and by monitoring the value of the securities posted or received as collateral on a daily basis.

As at September 30, 2018, the Bank had three open positions (December 31, 2017: 23) 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 $71.7 million (December 31, 2017: $178.8 million) and are included in securities purchased under agreement to resell on the consolidated balance sheets. As at September 30, 2018, there were no positions (December 31, 2017: no positions) which were offset on the balance sheet 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 of September 30, 2018, a provision of $5.5 million (December 31, 2017: $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 and on the consolidated statements of operations under other expenses.

(In thousands of US dollars, unless otherwise stated)

Note 11: Exit cost obligations

During December 2015, the Bank agreed to commence an orderly wind down of the deposit taking and investment management businesses in the United Kingdom segment as reflected in management segment reporting described in Note 12: Segmented information. In making this determination, the Bank considered the increasing regulatory pressure along with periods of negative profitability and made the determination that an orderly wind down of the deposit taking and investment management businesses in the United Kingdom was prudent for Butterfield as a group. The orderly wind down was largely completed by the end of 2016 with the change in business operations to mortgage lending services and the change in name from Butterfield Bank (UK) Limited to Butterfield Mortgages Limited. The amounts expensed shown in the following table are all included in the consolidated statements of operations as restructuring costs under non-interest expenses.

Related to this orderly wind down, it was determined that the core banking system utilized in the operations of the United Kingdom segment was impaired (included in premises, equipment and computer software on the consolidated balance sheets). This determination was based upon the realizable value of this software upon completion of the orderly wind down.

	Expense recognized by period				Amounts paid by period		Exit cost liability	
	Nine months ended September 30, 2018	Years 2017, 2016 and 2015	Costs to be recognized in the future	Total exit costs expected to be incurred	**Nine months ended September 30, 2018**	Years 2017, 2016 and 2015	**As at September 30, 2018**	As at December 31, 2017
Staff redundancy expenses	—	3,680	—	3,680	—	3,680	—	—
Professional services	—	4,388	—	4,388	—	4,388	—	—
Lease termination expenses	—	649	—	649	—	649	—	—
Other expenses	—	1,504	652	2,156	—	1,504	—	—
Total	—	10,221	652	10,873	—	10,221	—	—

Note 12: Segmented information

The Bank is managed by the CEO on a geographic basis. In 2017, the Bank presented six segments which included Bermuda, Cayman, Guernsey, Switzerland, The Bahamas and the United Kingdom. In 2018, the Bank reassessed the segment reporting as a result of acquisitions which were announced in 2017 or early 2018 and concluded on the following three geographic segments: Bermuda, Cayman, and Channel Islands and the UK. The Other segment is composed of several non-reportable operating segments that have been aggregated in accordance with US GAAP. Each region has a managing director who reports to the CEO. The CEO and the region managing director have final authority over resource allocation decisions and performance assessment. The 2017 classification presented below was revised to conform the presentation for all periods to the current period's presentation.

The geographic segments reflect this management structure and the manner in which financial information is currently evaluated by the 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, 2017. 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 expense. 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 four branch locations and through internet banking, mobile banking, automated teller machines ("ATMs") and debit cards. Retail services include deposit services, consumer and mortgage lending, credit cards and personal insurance products. Commercial banking includes commercial lending and mortgages, cash management, payroll services, remote banking and letters of credit. Treasury services include money market and foreign exchange activities. Bermuda's wealth management offering consists of Butterfield Asset Management Limited, which provides investment management, advisory and brokerage services and Butterfield Trust (Bermuda) Limited, which provides trust, estate, company management and custody services. Bermuda is also the location of 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 (Channel Islands), and the UK. In the Channel Islands, a broad range of services are provided to private clients and financial institutions 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.

(In thousands of US dollars, unless otherwise stated)

Effective June 30, 2018, the Bank revised the presentation of total assets by segment in the following table to exclude the effect of investment in subsidiaries from the total assets in each segment.

Total Assets by Segment	September 30, 2018	December 31, 2017
Bermuda	5,779,015	6,053,546
Cayman	3,258,229	3,242,343
Channel Islands and the UK	1,711,101	1,586,134
Other	25,324	13,859
Total assets before inter-segment eliminations	10,773,669	10,895,882
Less: inter-segment eliminations	(344,006)	(116,645)
Total	10,429,663	10,779,237

Three months ended September 30, 2018	Net interest income: Customer	Net interest income: Inter-segment	Provision for credit losses	Non-interest income	Revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
Bermuda	52,861	631	2,928	21,220	77,640	629	78,269	51,052	27,217
Cayman	25,705	133	188	11,635	37,661	—	37,661	15,576	22,085
Channel Islands and the UK	9,707	(764)	(305)	6,667	15,305	25	15,330	13,061	2,269
Other	3	—	—	3,647	3,650	—	3,650	4,852	(1,202)
Total before eliminations	88,276	—	2,811	43,169	134,256	654	134,910	84,541	50,369
Inter-segment eliminations	—	—	—	(1,896)	(1,896)	—	(1,896)	(1,896)	—
Total	88,276	—	2,811	41,273	132,360	654	133,014	82,645	50,369

Three months ended September 30, 2017	Net interest income: Customer	Net interest income: Inter-segment	Provision for credit losses	Non-interest income	Revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
Bermuda	45,555	287	1,053	20,051	66,946	2,597	69,543	47,012	22,531
Cayman	21,805	11	(418)	10,923	32,321	—	32,321	14,938	17,383
Channel Islands and the UK	6,864	(305)	26	5,744	12,329	(842)	11,487	10,345	1,142
Other	34	7	—	3,058	3,099	—	3,099	3,064	35
Total before eliminations	74,258	—	661	39,776	114,695	1,755	116,450	75,359	41,091
Inter-segment eliminations	—	—	—	(1,543)	(1,543)	—	(1,543)	(1,543)	—
Total	74,258	—	661	38,233	113,152	1,755	114,907	73,816	41,091

Nine months ended September 30, 2018	Net interest income: Customer	Net interest income: Inter-segment	Provision for credit losses	Non-interest income	Revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
Bermuda	153,585	1,877	5,736	64,264	225,462	744	226,206	150,547	75,659
Cayman	74,642	134	(347)	34,814	109,243	349	109,592	45,472	64,120
Channel Islands and the UK	27,326	(2,011)	(112)	20,160	45,363	(1,663)	43,700	36,817	6,883
Other	14	—	—	10,285	10,299	—	10,299	12,683	(2,384)
Total before eliminations	255,567	—	5,277	129,523	390,367	(570)	389,797	245,519	144,278
Inter-segment eliminations	—	—	—	(6,550)	(6,550)	—	(6,550)	(6,550)	—
Total	255,567	—	5,277	122,973	383,817	(570)	383,247	238,969	144,278

(In thousands of US dollars, unless otherwise stated)

Nine months ended September 30, 2017	Net interest income Customer	Inter-segment	Provision for credit losses	Non-interest income	Revenue before gains and losses	Gains and losses	Total net revenue	Total expenses	Net income
Bermuda	132,078	835	718	59,474	193,105	4,875	197,980	138,938	59,042
Cayman	64,257	—	(273)	33,304	97,288	19	97,307	45,145	52,162
Channel Islands and the UK	17,243	(874)	42	17,966	34,377	(930)	33,447	31,669	1,778
Other	69	39	—	8,174	8,282	—	8,282	8,266	16
Total before eliminations	213,647	—	487	118,918	333,052	3,964	337,016	224,018	112,998
Inter-segment eliminations	—	—	—	(3,444)	(3,444)	—	(3,444)	(3,444)	—
Total	213,647	—	487	115,474	329,608	3,964	333,572	220,574	112,998

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 consist of designated interest rate swaps and are used to minimize the Bank's exposure to changes in the fair value of assets and liabilities due to movements in interest rates. The Bank previously entered into interest rate swaps to convert its fixed-rate long-term loans to floating-rate loans, and convert fixed-rate deposits to floating-rate deposits. During the year ended December 31, 2011, the Bank canceled its interest rate swaps designated as fair value hedges of loans receivable and therefore discontinued hedge accounting for these financial instruments. The fair value attributable to the hedged loans are accounted for prospectively and are being amortized to net income over the remaining life of each individual loan, which could extend to year 2029, using the effective interest method.

(In thousands of US dollars, unless otherwise stated)

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.

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, 2018	Derivative instrument	Number of contracts	Notional amounts	Gross positive fair value	Gross negative fair value	Net fair value
Risk management derivatives						
Derivatives not formally designated as hedging instruments	Currency swaps	5	199,355	894	(823)	71
Client services derivatives	Spot and forward foreign exchange	277	2,463,007	18,184	(17,958)	226
Total derivative instruments			2,662,362	19,078	(18,781)	297

December 31, 2017	Derivative instrument	Number of contracts	Notional amounts	Gross positive fair value	Gross negative fair value	Net fair value
Risk management derivatives						
Derivatives not formally designated as hedging instruments	Currency swaps	8	183,719	726	(2,754)	(2,028)
Client services derivatives	Spot and forward foreign exchange	120	2,130,224	10,595	(9,911)	684
Total derivative instruments			2,313,943	11,321	(12,665)	(1,344)

In addition to the above, as at September 30, 2018 foreign denominated deposits of £124.5 million (December 31, 2017: £84.5 million), CHF 0.4 million (December 31, 2017: CHF 0.4 million), and SGD 4.0 million (December 31, 2017: nil) 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.

(In thousands of US dollars, unless otherwise stated)

The Bank also elected not to offset certain derivative assets or liabilities and all collaterals 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.

				Less: positions not offset in the consolidated balance sheets		
September 30, 2018	**Gross fair value recognized**	**Less: offset applied under master netting agreements**	**Net fair value presented in the consolidated balance sheets**	**Gross fair value of derivatives**	**Cash collateral received / paid**	**Net exposures**
Derivative assets						
Spot and forward foreign exchange and currency swaps	**19,078**	**(4,005)**	**15,073**	**—**	**(11,745)**	**3,328**
Derivative liabilities						
Spot and forward foreign exchange and currency swaps	**18,781**	**(4,005)**	**14,776**	**—**	**(527)**	**14,249**
Net positive fair value			**297**			

				Less: positions not offset in the consolidated balance sheets		
December 31, 2017	Gross fair value recognized	Less: offset applied under master netting agreements	Net fair value presented in the consolidated balance sheets	Gross fair value of derivatives	Cash collateral received / paid	Net exposures
Derivative assets						
Spot and forward foreign exchange and currency swaps	11,321	(2,197)	9,124	—	(6,196)	2,928
Derivative liabilities						
Spot and forward foreign exchange and currency swaps	12,665	(2,197)	10,468	—	—	10,468
Net negative fair value			(1,344)			

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, 2018**	September 30, 2017	**September 30, 2018**	September 30, 2017
Spot and forward foreign exchange	Foreign exchange revenue	**(33)**	(423)	**(458)**	103
Currency swaps, not designated as hedge	Foreign exchange revenue	**(15,098)**	10,794	**2,099**	(6,833)
Currency swaps - net investment hedge	Foreign exchange revenue	**—**	(12,516)	**—**	(11,334)
Total net gains (losses) recognized in net income		**(15,131)**	(2,145)	**1,641**	(18,064)
Derivative instrument	**Consolidated statements of comprehensive income line item**	**September 30, 2018**	September 30, 2017	**September 30, 2018**	September 30, 2017
Currency swaps - net investment hedge	Net change in unrealized gains and (losses) on translation of net investment in foreign operations	**—**	—	**—**	(4,410)
Total net gains (losses) recognized in comprehensive income		**—**	—	**—**	(4,410)

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, 2017.

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 corporate bonds, 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, 2018 and the year ended December 31, 2017.

(In thousands of US dollars, unless otherwise stated)

	September 30, 2018				December 31, 2017			
	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								
Trading investments								
Mutual funds	**6,655**	**292**	**—**	**6,947**	6,616	208	—	6,824
Total trading	**6,655**	**292**	**—**	**6,947**	6,616	208	—	6,824
Available-for-sale investments								
US government and federal agencies	**—**	**2,026,884**	**—**	**2,026,884**	—	2,709,104	—	2,709,104
Non-US governments debt securities	**—**	**25,452**	**—**	**25,452**	—	26,248	—	26,248
Corporate debt securities	**—**	**93,544**	**—**	**93,544**	—	243,372	—	243,372
Asset-backed securities - Student loans	**—**	**—**	**12,626**	**12,626**	—	—	12,493	12,493
Commercial mortgage-backed securities	**—**	**137,545**	**—**	**137,545**	—	141,500	—	141,500
Residential mortgage-backed securities	**—**	**159,668**	**—**	**159,668**	—	184,723	—	184,723
Total available-for-sale	**—**	**2,443,093**	**12,626**	**2,455,719**	—	3,304,947	12,493	3,317,440
Other assets - Derivatives	**—**	**15,073**	**—**	**15,073**	—	9,124	—	9,124
Financial liabilities								
Other liabilities - Derivatives	**—**	**14,776**	**—**	**14,776**	—	10,468	—	10,468

Level 3 Reconciliation

The Level 3, 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 broker quote. The fair value provided by the broker is based on the last trading price of similar securities but as the market for the security is illiquid, a Level 2 classification is not supported.

Significant increases (decreases) in any of the preceding inputs in isolation could result in a significantly different fair value measurement. Generally a change in assumption used for the probability of defaults is accompanied by a directionally similar change in the assumption used for the loss severity.

	Nine months ended September 30, 2018	Year ended December 31, 2017
	Available-for-sale investments	Available-for-sale investments
Carrying amount at beginning of period	**12,493**	12,493
Realized and unrealized gains (losses) recognized in other comprehensive income	**133**	—
Carrying amount at end of period	**12,626**	12,493

(In thousands of US dollars, unless otherwise stated)

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

		September 30, 2018			December 31, 2017		
	Level	Carrying amount	Fair value	Appreciation / (depreciation)	Carrying amount	Fair value	Appreciation / (depreciation)
Financial assets							
Cash due from banks	Level 1	1,259,098	1,259,098	—	1,535,138	1,535,138	—
Securities purchased under agreement to resell	Level 2	71,693	71,693	—	178,769	178,769	—
Short-term investments	Level 1	75,910	75,910	—	249,984	249,984	—
Investments held-to-maturity	Level 2	2,113,728	2,052,614	(61,114)	1,381,955	1,377,354	(4,601)
Loans, net of allowance for credit losses	Level 2	4,091,643	4,089,633	(2,010)	3,776,862	3,770,450	(6,412)
Other real estate owned[1]	Level 2	4,737	4,737	—	9,127	9,127	—
Financial liabilities							
Customer deposits							
Demand deposits	Level 2	7,324,929	7,324,929	—	7,813,654	7,813,654	—
Term deposits	Level 2	1,720,440	1,720,664	(224)	1,710,338	1,710,223	115
Deposits from banks	Level 2	20,635	20,635	—	12,466	12,466	—
Long-term debt	Level 2	143,277	143,884	(607)	117,000	118,321	(1,321)

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

(In thousands of US dollars, unless otherwise stated)

Note 15: Interest rate risk

The following tables set out the assets, liabilities and shareholders' equity and off-balance sheet instruments 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, 2018	Earlier of contractual maturity or repricing date						
(in $ millions)	**Within 3 months**	**3 to 6 months**	**6 to 12 months**	**1 to 5 years**	**After 5 years**	**Non-interest bearing funds**	**Total**
Assets							
Cash due from banks	1,170	—	—	—	—	89	1,259
Securities purchased under agreement to resell	72	—	—	—	—	—	72
Short-term investments	40	25	3	—	—	8	76
Investments	717	—	43	231	3,578	7	4,576
Loans	3,406	87	152	312	127	8	4,092
Other assets	—	—	—	—	—	355	355
Total assets	5,405	112	198	543	3,705	467	10,430
Liabilities and shareholders' equity							
Shareholders' equity	—	—	—	—	—	872	872
Demand deposits	5,200	—	—	—	—	2,138	7,338
Term deposits	1,133	200	333	62	—	—	1,728
Other liabilities	—	—	—	—	—	349	349
Long-term debt	70	—	—	73	—	—	143
Total liabilities and shareholders' equity	6,403	200	333	135	—	3,359	10,430
Interest rate sensitivity gap	(998)	(88)	(135)	408	3,705	(2,892)	—
Cumulative interest rate sensitivity gap	(998)	(1,086)	(1,221)	(813)	2,892	—	—

December 31, 2017	Earlier of contractual maturity or repricing date						
(in $ millions)	Within 3 months	3 to 6 months	6 to 12 months	1 to 5 years	After 5 years	Non-interest bearing funds	Total
Assets							
Cash due from banks	1,446	—	—	—	—	89	1,535
Securities purchased under agreement to resell	179	—	—	—	—	—	179
Short-term investments	163	87	—	—	—	—	250
Investments	1,464	62	15	390	2,768	7	4,706
Loans	3,457	44	34	194	44	4	3,777
Other assets	—	—	—	—	—	332	332
Total assets	6,709	193	49	584	2,812	432	10,779
Liabilities and shareholders' equity							
Shareholders' equity	—	—	—	—	—	823	823
Demand deposits	5,342	—	—	—	—	2,480	7,822
Term deposits	1,340	132	183	59	—	—	1,714
Other liabilities	—	—	—	—	—	303	303
Long-term debt	92	25	—	—	—	—	117
Total liabilities and shareholders' equity	6,774	157	183	59	—	3,606	10,779
Interest rate sensitivity gap	(65)	36	(134)	525	2,812	(3,174)	—
Cumulative interest rate sensitivity gap	(65)	(29)	(163)	362	3,174	—	—

(In thousands of US dollars, unless otherwise stated)

Note 16: Long-term debt

On May 28, 2003, the Bank issued US $125 million of Subordinated Lower Tier II capital notes. The notes were issued at par and in two tranches, namely US $78 million in Series A notes due 2013 and US $47 million in Series B notes due 2018. The issuance was by way of private placement with US institutional investors. The notes are listed on the Bermuda Stock Exchange ("BSX") in the specialist debt securities category. Part of the proceeds of the issue were used to repay the entire amount of the US $75 million outstanding subordinated notes redeemed in July 2003. The notes issued under Series A paid a fixed coupon of 3.94% until May 27, 2008 when it was redeemed in whole by the Bank. The Series B notes paid a fixed coupon of 5.15% until May 27, 2013 when they became redeemable in whole at the Bank's option. The Series B notes were priced at a spread of 1.35% over the 10-year US Treasury yield. In May 2018, the Bank fully redeemed the 2003 issuance Series B for its nominal value of $47 million.

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 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 notes issued under Series A paid a fixed coupon of 4.81% until July 2, 2010 after which the coupon rate became floating and the principal became redeemable in whole at the Bank's option. The Series B notes paid a fixed coupon of 5.11% until July 2, 2015 when they also became redeemable in whole at the Bank's option. The Series A notes were priced at a spread of 1.00% over the five-year US Treasury yield and 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 a portion of the outstanding 5.11% 2005 Series B Subordinated notes ("the Note"). The face value of the portion of the Note repurchased was $15 million and the purchase price paid for the repurchase was $13.875 million, which realized a gain of $1.125 million. During January 2014, the Bank fully redeemed the 2005 issuance Series A subordinated debt for its nominal value of $90 million.

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 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 notes issued under Series A paid a fixed coupon of 7.59% until May 27, 2013 when they became redeemable in whole at the option of the Bank. In May 2013, the Bank exercised its option to redeem the Series A note outstanding at face value. The Series B notes pay a fixed coupon of 8.44% until May 27, 2018 when they become 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.

No interest was capitalized during the nine months ended September 30, 2018 and the year ended December 31, 2017.

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, 2018. The interest payments are calculated until contractual maturity using the current LIBOR rates.

						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								
2005 issuance - Series B	July 2, 2015	July 2, 2020	5.11%	3 months US$ LIBOR + 1.695%	45,000	1,868	1,873	—
2008 issuance - Series B	May 27, 2018	May 27, 2023	8.44%	3 months US$ LIBOR + 4.929%	25,000	1,857	6,966	—
2018 issuance	June 1, 2023	June 1, 2028	5.25%	3 months US$ LIBOR + 2.255%	75,000	3,938	16,642	16,820
Total					145,000	7,663	25,481	16,820
Unamortized debt issuance costs					(1,723)			
Long-term debt less unamortized debt issuance costs					143,277			

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 year. Numbers of shares are expressed in thousands.

During the nine months ended September 30, 2018, options to purchase an average of 0.4 million (September 30, 2017: 1.1 million) common shares were outstanding. During the nine months ended September 30, 2018, the average number of outstanding awards of unvested common shares was 1.0 million (September 30, 2017: 0.9 million). Only awards for which the sum of 1) the expense that will be recognized in the future (i.e. the unrecognized expense) and 2) its exercise price, if any, was lower than the average market price of the Bank's common shares were considered dilutive and, therefore, included in the computation of diluted earnings per share. An award's unrecognized expense is also considered to be the proceeds the employees would need to pay to purchase accelerated vesting of the awards. For purposes of calculating dilution, such proceeds are assumed to be used by the Bank to buy back common shares at the average market price. The weighted-average number of outstanding awards, net of the assumed weighted-average number of common shares bought back, is included in the number of diluted participating shares.

	Three months ended		Nine months ended	
	September 30, 2018	September 30, 2017	**September 30, 2018**	September 30, 2017
Net income	**50,369**	41,091	**144,278**	112,998
Basic Earnings Per Share				
Weighted average number of common shares issued	**55,250**	54,614	**55,099**	54,180
Weighted average number of common shares held as treasury stock	**—**	—	**—**	—
Weighted average number of common shares (in thousands)	**55,250**	54,614	**55,099**	54,180
Basic Earnings Per Share	**0.91**	0.75	**2.62**	2.09
Diluted Earnings Per Share				
Weighted average number of common shares	**55,250**	54,614	**55,099**	54,180
Net dilution impact related to options to purchase common shares	**193**	339	**249**	628
Net dilution impact related to awards of unvested common shares	**586**	512	**573**	596
Weighted average number of diluted common shares (in thousands)	**56,029**	55,465	**55,921**	55,404
Diluted Earnings Per Share	**0.90**	0.74	**2.58**	2.04

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 respectively 5.0 million and 7.5 million shares.

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 Plan

Under the 2010 Plan, 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 Plan 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 thousands of US dollars, unless otherwise stated)

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

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

Changes in Outstanding Stock Options

	Number of shares transferable upon exercise (thousands)			Weighted average exercise price ($)		Weighted average remaining life (years)		
Nine months ended September 30, 2018	**1997 Stock Option Plan**	**2010 Stock Option Plan**	**Total**	**1997 Stock Option Plan**	**2010 Stock Option Plan**	**1997 Stock Option Plan**	**2010 Stock Option Plan**	**Aggregate intrinsic value ($ thousands)**
Outstanding at beginning of period	58	476	534	113.46	11.73			
Exercised	—	(273)	(273)	—	11.56			9,791
Forfeitures and cancellations	(33)	—	(33)	150.46	—			
Outstanding at end of period	25	203	228	64.51	11.94	0.45	1.89	8,093
Vested and exercisable at end of period	25	203	228	64.51	11.94	0.45	1.89	

	Number of shares transferable upon exercise (thousands)			Weighted average exercise price ($)		Weighted average remaining life (years)		
Nine months ended September 30, 2017	1997 Stock Option Plan	2010 Stock Option Plan	Total	1997 Stock Option Plan	2010 Stock Option Plan	1997 Stock Option Plan	2010 Stock Option Plan	Aggregate intrinsic value ($ thousands)
Outstanding at beginning of period	116	1,950	2,066	132.13	11.57			
Exercised	—	(1,456)	(1,456)	—	11.51			31,884
Forfeitures and cancellations	(57)	—	(57)	151.71	—			
Outstanding at end of period	59	494	553	113.46	11.72	0.88	2.73	12,305
Vested and exercisable at end of period	59	494	553	113.46	11.72	0.88	2.73	

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, 2018 was $39.25 (year 2017: $31.13). The Bank expects to settle these awards by issuing new shares.

Employee Deferred Incentive Plan ("EDIP")
Under the Bank's EDIP Plan, shares were 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 2012 and 2011
Under the Bank's 2012 and 2011 ELTIP, shares were awarded to Bank employees and executive management, based on predetermined vesting conditions. Two types of vesting conditions upon which the shares were awarded comprise the ELTIP: 1) 50% of each share award was granted in the form of time vested shares, generally vesting equally over a three-year period from the effective grant date; and 2) 50% of each share award was granted in the form of performance shares, generally vesting upon the achievement of certain performance targets in the three-year period from the effective grant date.

Executive Long-Term Incentive Share Plan ("ELTIP") - Years 2015 - 2018
The 2018 ELTIP was approved on February 13, 2018. Under the Bank's ELTIP plans for the years 2015 through 2018, 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, 2018		September 30, 2017	
	EDIP	ELTIP	EDIP	ELTIP
Outstanding at beginning of period	244	679	215	640
Granted	127	235	130	230
Vested (fair value in 2018: $16.0 million, 2017: $10.2 million)	(130)	(219)	(102)	(196)
Resignations, retirements, redundancies	(2)	(24)	(1)	(1)
Outstanding at end of period	239	671	242	673

Share-based Compensation Cost Recognized in Net Income

	Nine months ended					
	September 30, 2018			September 30, 2017		
	Stock option plans	EDIP and ELTIP	Total	Stock option plans	EDIP and ELTIP	Total
Cost recognized in net income	—	8,558	8,558	—	5,225	5,225

Unrecognized Share-based Compensation Cost

	September 30, 2018		December 31, 2017	
	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	5,370	1.92	3,453	1.85
ELTIP				
Time vesting shares	2,212	1.25	3,302	1.89
Performance vesting shares	9,317	2.04	5,010	1.78
Total unrecognized expense	16,899		11,765	

Note 19: Share buy-back plans

The Bank initially introduced two share buy-back programs on May 1, 2012 as a means to improve shareholder liquidity and facilitate growth in share value. Each program was approved by the Board of Directors for a period of 12 months, in accordance with the regulations of the BSX. The BSX must be advised monthly of shares purchased pursuant to each program.

From time to time the Bank's associates, insiders and insiders' associates as defined by the BSX regulations may sell shares which may result in such shares being repurchased pursuant to each program, provided no more than any such person's pro-rata share of the listed securities is repurchased. Pursuant to the BSX regulations, all repurchases made by any issuer pursuant to a securities repurchase program must be made: (1) in the open market and not by private agreement; and (2) for a price not higher than the last independent trade for a round lot of the relevant class of securities.

Common Share Buy-Back Program

On February 19, 2016, the Board approved, with effect from April 1, 2016, the 2016 common share buy-back program, authorizing the purchase for treasury of up to 0.8 million common shares.

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. The timing and amount of repurchase transactions will be based on market conditions, share price, legal requirements and other factors. No assurances can be given as to the amount of common shares that may actually be repurchased.

	Nine months ended	Year ended December 31				
Common share buy-backs	September 30, 2018	2017	2016	2015	2014	Total
Acquired number of shares (to the nearest 1)	—	—	97,053	250,371	856,734	1,204,158
Average cost per common share	—	—	16.36	19.42	19.86	19.49
Total cost (in US dollars)	—	—	1,588,189	4,862,248	17,018,412	23,468,849

(In thousands of US dollars, unless otherwise stated)

Note 20: Accumulated other comprehensive loss

September 30, 2018	Unrealized (losses) on translation of net investment in foreign operations	HTM investments	Unrealized gains (losses) on AFS investments	Employee benefit plans: Pension	Post-retirement healthcare	Subtotal - employee benefits plans	Total AOCL
Balance at beginning of period	**(17,549)**	**(839)**	**(15,737)**	**(61,341)**	**(33,586)**	**(94,927)**	**(129,052)**
Other comprehensive income (loss), net of taxes	**(1,501)**	**31**	**(46,193)**	**427**	**1,990**	**2,417**	**(45,246)**
Balance at end of period	**(19,050)**	**(808)**	**(61,930)**	**(60,914)**	**(31,596)**	**(92,510)**	**(174,298)**

September 30, 2017	Unrealized (losses) on translation of net investment in foreign operations	HTM investments	Unrealized gains (losses) on AFS investments	Employee benefit plans: Pension	Post-retirement healthcare	Subtotal - employee benefits plans	Total AOCL
Balance at beginning of period	(20,152)	(979)	(22,680)	(63,232)	(37,637)	(100,869)	(144,680)
Other comprehensive income (loss), net of taxes	2,243	109	16,046	541	2,067	2,608	21,006
Balance at end of period	(17,909)	(870)	(6,634)	(62,691)	(35,570)	(98,261)	(123,674)

Net Change of AOCL Components	Line item in the consolidated statements of operations, if any	Three months ended September 30, 2018	Three months ended September 30, 2017	Nine months ended September 30, 2018	Nine months ended September 30, 2017
Net unrealized gains (losses) on translation of net investment in foreign operations adjustments					
Foreign currency translation adjustments	N/A	**(2,325)**	4,367	**(9,358)**	11,277
Gains (loss) on net investment hedge	N/A	**1,846**	(3,269)	**7,857**	(9,034)
Net change		**(479)**	1,098	**(1,501)**	2,243
Held-to-maturity investment adjustments					
Amortization of net gains (losses) to net income	Interest income on investments	**7**	21	**31**	109
Net change		**7**	21	**31**	109
Available-for-sale investment adjustments					
Gross unrealized gains (losses)	N/A	**(11,274)**	7,165	**(44,841)**	20,292
Transfer of realized (gains) losses to net income	Net realized gains (losses) on AFS investments	**(458)**	(2,468)	**(1,352)**	(4,246)
Net change		**(11,732)**	4,697	**(46,193)**	16,046
Employee benefit plans adjustments					
Defined benefit pension plan					
Net actuarial gain (loss)	N/A	**—**	—	**(3,236)**	—
Net loss (gain) on settlement reclassified to net income	Net other gains (losses)	**—**	—	**1,554**	—
Amortization of net actuarial losses	Non-service employee benefits expense	**524**	560	**1,575**	1,676
Foreign currency translation adjustments of related balances	N/A	**158**	(403)	**534**	(1,135)
Net change		**682**	157	**427**	541
Post-retirement healthcare plan					
Amortization of net actuarial losses	Non-service employee benefits expense	**654**	879	**1,961**	2,636
Amortization of prior service credit	Non-service employee benefits expense	**9**	(189)	**29**	(569)
Net change		**663**	690	**1,990**	2,067
Other comprehensive income (loss), net of		**(10,859)**	6,663	**(45,246)**	21,006

(In thousands of US dollars, unless otherwise stated)

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.

On July 25, 2016, the Bank's board of directors approved a consolidation of the existing common shares on the basis of a 10 to 1 ratio, subject to shareholder approval. As a result of this consolidation, effective September 6, 2016 upon shareholder approval, every 10 common shares of par value BM$0.01 were consolidated into 1 common share of par value BM$0.10 (the "Share Consolidation").

In addition, as of September 6, 2016, the par value of each issued common share and each authorized but unissued common share was reduced from BM$0.10 to BM$0.01 and the authorized share capital of the Bank was correspondingly reduced from 2,000,000,000 common shares of par value BM$0.10 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 to 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, without any payment by the Bank to the holders of the voting ordinary shares in respect thereof (the "Reduction in Par Value" and together with the Share Consolidation, the "Reverse Share Split").

Immediately following the Reduction in Par Value, the Bank repurchased any and all fractions of common shares issued and outstanding from the holders thereof. All share, share-based payments and dividend information presented in these consolidated financial statements and accompanying footnotes has been retroactively adjusted to reflect the decreased number of shares resulting from this action.

Prior to the Reverse Share Split, the Bank's total authorized share capital consisted of (i) 20 billion common shares of par value BM$0.01, (ii) 6 billion non-voting ordinary shares of par value BM$0.01; (iii) 110,200,001 preference shares of par value US$0.01 and (iv) 50 million preference shares of par value £0.01.

Dividends Declared

During the nine months ended September 30, 2018, the Bank paid cash dividends of $1.14 (September 30, 2017: $0.96) for each common share as of the related record dates.

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 prior written approval 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 BMA approval for all dividends declared during the periods under review.

Regulatory Capital

Effective January 1, 2016, the Bank's regulatory capital is determined in accordance with current Basel III guidelines as issued by the Bermuda Monetary Authority ("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. Prior to January 1, 2016, the Bank's regulatory capital was determined in accordance with Basel II guidelines as issued by the BMA.

The Bank is fully compliant with all regulatory capital requirements and maintains capital ratios in excess of regulatory minimums as at September 30, 2018 and December 31, 2017. The following table sets forth the Bank's capital adequacy in accordance with the Basel III framework:

	September 30, 2018		December 31, 2017	
	Actual	**Regulatory minimum**	Actual	Regulatory minimum
Capital				
CET 1 capital	**847,443**	**N/A**	772,311	N/A
Tier 1 capital	**847,443**	**N/A**	772,311	N/A
Tier 2 capital	**129,086**	**N/A**	74,010	N/A
Total capital	**976,529**	**N/A**	846,321	N/A
Risk Weighted Assets	**4,194,606**	**N/A**	4,254,178	N/A
Leverage Ratio Exposure Measure	**10,834,062**	**N/A**	11,195,173	N/A
Capital Ratios (%)				
CET 1 capital	**20.2%**	**9.4%**	18.2%	8.8%
Tier 1 capital	**20.2%**	**10.9%**	18.2%	10.3%
Total capital	**23.3%**	**15.6%**	19.9%	14.9%
Leverage ratio	**7.8%**	**5.0%**	6.9%	5.0%

(In thousands of US dollars, unless otherwise stated)

Note 22: Business combinations

Deutsche Bank's Global Trust Solutions Acquisition

On March 29, 2018, the Bank concluded the acquisition of Deutsche Bank's Global Trust Solutions ("GTS") business, excluding its US operations, for net cash payments of $24.7 million (composed of an initial cash payment of $30.2 million followed by a refund of $5.5 million on May 29, 2018). The refund was received based upon the movement in the number of clients in the GTS portfolio between the time the acquisition was agreed upon and the conclusion of the acquisition, together with an adjustment based upon the net asset values of the companies transferred. Butterfield has taken over the ongoing management and administration of the GTS portfolio, comprising approximately 1,000 trust structures for some 900 private clients. Butterfield is also offering positions to all employees who are fully dedicated to GTS in the Cayman Islands, Guernsey, Switzerland, Singapore and Mauritius. The acquisition was undertaken to enhance the Bank's market presence in the global trust service market.

The Bank incurred transaction expenses related to this acquisition in the amount of $3.5 million, of which $1.6 million were expensed during the nine months ended September 30, 2018 (including $0.8 million of legal and professional fees) and $1.9 million were expensed during the year ended December 31, 2017 (including $1.6 million of legal and professional fees).

For the three months ended September 30, 2018, the amount of revenues and net deficit relating to the acquired GTS operations that were not inextricably merged into the Bank's operations were $2.1 million and $1.3 million respectively. For the nine months ended September 30, 2018, the amount of revenues and net deficit relating to the acquired GTS operations that were not inextricably merged into the Bank's operations were $4.0 million and $2.3 million respectively.

The assets acquired consist mainly of: customer relationships intangible assets, goodwill and accounts receivable. The liabilities assumed consist mainly of deferred revenues and accounts payable. The initial allocation shown below is subject to change during the remainder of 2018 as the Bank will continue to receive and analyze information for this acquisition.

	As at March 29, 2018
Total consideration transferred	24,680
Assets acquired	
Cash due from banks	3,958
Intangible assets (estimated useful life of 15 years)	16,932
Other assets	4,548
Total assets acquired	25,438
Liabilities acquired (included in Other liabilities on the balance sheet)	4,626
Excess purchase price (Goodwill)	3,868

Ongoing Asset Acquisition

On February 15, 2018, the Bank announced that it had entered into an agreement to acquire Deutsche Bank's banking and custody business in the Cayman Islands, Guernsey and Jersey. During the three months ended September 30, 2018, the Bank began to onboard certain customer deposits relating to the acquisition and this activity will continue during the fourth quarter.

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 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 to preferential rates. As at September 30, 2018, related party director and executive loan balances were $100.6 million (December 31, 2017: $30.6 million). During the nine months ended September 30, 2018, new issuance of loans and change in directorships to directors and executives were $69.8 million and repayments and change in directorships were $0.2 million (year ended December 31, 2017: $31.7 million and $8.9 million, respectively). During the year ended December 31, 2017, a director resigned from the Board resulting in $4.3 million in loans being reclassified out of related party loans. All of these loans were considered performing loans as at September 30, 2018 and December 31, 2017. For the nine months ended September 30, 2018, the Bank has recognized $3.5 million (September 30, 2017: $0.7 million) of loan interest revenue in the consolidated statement of operations relating to directors and executives, companies in which they are principal owners and/or members of the board, and trusts in which they are involved.

Certain directors and executives of the Bank, companies in which they are principal owners, and trusts in which they are involved, have deposits with the Bank. As at September 30, 2018, related party director and executive deposit balances were $18.7 million (December 31, 2017: $23.5 million).

On October 6, 2015, the Bank executed a $6 million loan agreement with a related party of an executive which originally matured on October 31, 2017. This agreement was renewed at $6 million and matures on November 2, 2018. This loan was made in the ordinary course of business on normal commercial terms. At September 30, 2018, $1.5 million (December 31, 2017: nil) was outstanding under this agreement. For the nine months ended September 30, 2018, nil (September 30, 2017: $0.1 million) of interest income has been recognized in the consolidated statements of operations in relation with this agreement.

Certain affiliates of the Bank have loans and deposits with the Bank. The loans were made and the deposits are maintained in the ordinary course of business on normal commercial terms. At September 30, 2018, affiliates had loan balances of $10.2 million (December 31, 2017: $10.5 million) and deposits balances of $0.6 million (December 31, 2017: $0.6 million). For the nine months ended September 30, 2018, the Bank has recognized $1.3 million (September 30, 2017: $1.5 million) of non-interest expenses and $0.5 million (September 30, 2017: $0.5 million) of loan interest revenue in the consolidated statement of operations relating to affiliates which the Bank holds investments in.

Capital Transaction

Up to February 28, 2017, investment partnerships associated with The Carlyle Group held approximately 14% of the Bank's equity voting power along with the right to designate two persons for nomination for election by the shareholders as members of the Bank's Board of Directors. On February 28, 2017, as a result of a secondary public offering, the Carlyle Group sold their holdings in the Bank, and as a result, the investment agreement between the Bank and the Carlyle Group, which provided, amongst other rights, the right to designate two persons for nomination for election by the shareholders as members of the Bank's Board of Directors, was terminated.

Financial Transactions With Related Parties

The Bank holds seed investments in several Butterfield mutual funds, which are managed by a wholly-owned subsidiary of the Bank. As at September 30, 2018, these investments have a fair value of $5.0 million with an unrealized gain of $1.7 million (December 31, 2017: $5.0 and $1.6 million, respectively) and were included in trading investments at their fair value. During the nine months ended September 30, 2018, the Bank earned $7.0 million (September 30, 2017: $5.5 million) in asset management revenue from funds managed by a wholly-owned subsidiary of the Bank. During the nine months ended September 30, 2018, the Bank earned $1.0 million (September 30, 2017: $0.8 million) in custody and other administration services revenue from funds managed by a wholly-owned subsidiary of the Bank and directors and executives, companies in which they are principal owners and/or members of the board and trusts in which they are involved.

Note 24: Subsequent events

On October 23, 2018, the Board of Directors declared an interim dividend of $0.38 per common share to be paid on November 16, 2018 to shareholders of record on November 5, 2018.