UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2019

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number 1-9861

M&T BANK CORPORATION
(Exact name of registrant as specified in its charter)

New York **(State or other jurisdiction of incorporation or organization)**	**16-0968385** **(I.R.S. Employer Identification No.)**
One M & T Plaza **Buffalo, New York** **(Address of principal executive offices)**	**14203** **(Zip Code)**

Registrant's telephone number, including area code:

(716) 635-4000

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbols	Name of Each Exchange on Which Registered
Common Stock, $.50 par value	MTB	New York Stock Exchange
6.375% Cumulative Perpetual Preferred Stock, Series A, $1,000 liquidation preference per share	MTBPr	New York Stock Exchange
6.375% Cumulative Perpetual Preferred Stock, Series C, $1,000 liquidation preference per share	MTBPrC	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☒ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☒ No

Number of shares of the registrant's Common Stock, $0.50 par value, outstanding as of the close of business on July 31, 2019: 133,666,679 shares.

M&T BANK CORPORATION

FORM 10-Q

For the Quarterly Period Ended June 30, 2019

Table of Contents of Information Required in Report

		Page
Part I. FINANCIAL INFORMATION		
Item 1.	Financial Statements.	
	CONSOLIDATED BALANCE SHEET – June 30, 2019 and December 31, 2018	3
	CONSOLIDATED STATEMENT OF INCOME –Three and six months ended June 30, 2019 and 2018	4
	CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME –Three and six months ended June 30, 2019 and 2018	5
	CONSOLIDATED STATEMENT OF CASH FLOWS – Six months ended June 30, 2019 and 2018	6
	CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY – Three and six months ended June 30, 2019 and 2018	7
	NOTES TO FINANCIAL STATEMENTS	9
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations.	55
Item 3.	Quantitative and Qualitative Disclosures About Market Risk.	91
Item 4.	Controls and Procedures.	91
Part II. OTHER INFORMATION		
Item 1.	Legal Proceedings.	91
Item 1A.	Risk Factors	92
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	92
Item 3.	Defaults Upon Senior Securities.	92
Item 4.	Mine Safety Disclosures.	92
Item 5.	Other Information.	92
Item 6.	Exhibits.	93
SIGNATURES		93

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements.

M&T BANK CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEET (Unaudited)

(Dollars in thousands, except per share)	June 30, 2019	December 31, 2018
Assets		
Cash and due from banks	$ 1,271,611	$ 1,605,439
Interest-bearing deposits at banks	8,791,753	8,105,197
Trading account	479,403	185,584
Investment securities (includes pledged securities that can be sold or repledged of $167,935 at June 30, 2019; $487,365 at December 31, 2018)		
Available for sale (cost: $7,359,445 at June 30, 2019; $8,869,423 at December 31, 2018)	7,380,340	8,682,509
Held to maturity (fair value: $3,630,158 at June 30, 2019; $3,255,483 at December 31, 2018)	3,604,233	3,316,640
Equity and other securities (cost: $558,440 at June 30, 2019; $677,187 at December 31, 2018)	595,676	693,664
Total investment securities	11,580,249	12,692,813
Loans and leases	90,142,482	88,733,492
Unearned discount	(264,424)	(267,015)
Loans and leases, net of unearned discount	89,878,058	88,466,477
Allowance for credit losses	(1,029,867)	(1,019,444)
Loans and leases, net	88,848,191	87,447,033
Premises and equipment	1,066,511	647,408
Goodwill	4,593,112	4,593,112
Core deposit and other intangible assets	38,428	47,067
Accrued interest and other assets	4,885,637	4,773,750
Total assets	$ 121,554,895	$ 120,097,403
Liabilities		
Noninterest-bearing deposits	$ 30,747,946	$ 32,256,668
Savings and interest-checking deposits	53,221,672	50,963,744
Time deposits	6,346,551	6,124,254
Deposits at Cayman Islands office	1,364,855	811,906
Total deposits	91,681,024	90,156,572
Short-term borrowings	4,611,390	4,398,378
Accrued interest and other liabilities	1,915,147	1,637,348
Long-term borrowings	7,655,507	8,444,914
Total liabilities	105,863,068	104,637,212
Shareholders' equity		
Preferred stock, $1.00 par, 1,000,000 shares authorized; Issued and outstanding: Liquidation preference of $1,000 per share: 731,500 shares at June 30, 2019 and December 31, 2018; Liquidation preference of $10,000 per share: 50,000 shares at June 30, 2019 and December 31, 2018	1,231,500	1,231,500
Common stock, $.50 par, 250,000,000 shares authorized, 159,741,898 shares issued at June 30, 2019; 159,765,044 shares issued at December 31, 2018	79,871	79,883
Common stock issuable, 21,327 shares at June 30, 2019; 24,563 shares at December 31, 2018	1,526	1,726
Additional paid-in capital	6,577,603	6,579,342
Retained earnings	12,162,278	11,516,672
Accumulated other comprehensive income (loss), net	(112,958)	(420,081)
Treasury stock — common, at cost — 25,563,347 shares at June 30, 2019; 21,255,275 shares at December 31, 2018	(4,247,993)	(3,528,851)
Total shareholders’ equity	15,691,827	15,460,191
Total liabilities and shareholders’ equity	$ 121,554,895	$ 120,097,403

See accompanying notes to financial statements.

M&T BANK CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF INCOME (Unaudited)

(In thousands, except per share)	Three Months Ended June 30		Six Months Ended June 30	
	2019	2018	2019	2018
Interest income				
Loans and leases, including fees	$ 1,125,577	$ 1,024,471	$ 2,243,490	$ 2,004,440
Investment securities				
Fully taxable	75,578	82,019	155,989	164,871
Exempt from federal taxes	77	172	172	420
Deposits at banks	36,325	21,869	63,732	40,546
Other	356	374	839	778
Total interest income	1,237,913	1,128,905	2,464,222	2,211,055
Interest expense				
Savings and interest-checking deposits	91,557	48,738	167,695	89,265
Time deposits	24,931	11,362	46,012	22,298
Deposits at Cayman Islands office	6,039	542	10,777	923
Short-term borrowings	7,893	1,383	14,606	2,266
Long-term borrowings	66,012	58,093	133,591	111,999
Total interest expense	196,432	120,118	372,681	226,751
Net interest income	1,041,481	1,008,787	2,091,541	1,984,304
Provision for credit losses	55,000	35,000	77,000	78,000
Net interest income after provision for credit losses	986,481	973,787	2,014,541	1,906,304
Other income				
Mortgage banking revenues	107,321	92,499	202,632	179,805
Service charges on deposit accounts	107,787	106,784	210,899	211,899
Trust income	144,382	137,641	277,168	269,016
Brokerage services income	12,478	12,629	24,954	26,021
Trading account and foreign exchange gains	18,453	5,255	29,255	9,892
Gain (loss) on bank investment securities	8,911	2,326	20,752	(7,105)
Other revenues from operations	112,763	100,280	247,200	226,582
Total other income	512,095	457,414	1,012,860	916,110
Other expense				
Salaries and employee benefits	455,737	418,537	954,937	881,965
Equipment and net occupancy	79,150	73,031	158,497	147,828
Outside data processing and software	55,234	49,712	107,651	98,141
FDIC assessments	9,772	19,560	19,198	39,840
Advertising and marketing	24,046	21,768	44,321	38,016
Printing, postage and supplies	10,324	8,719	20,179	18,038
Amortization of core deposit and other intangible assets	5,077	6,388	10,097	13,020
Other costs of operations	233,692	178,862	452,500	473,073
Total other expense	873,032	776,577	1,767,380	1,709,921
Income before taxes	625,544	654,624	1,260,021	1,112,493
Income taxes	152,284	161,464	304,019	266,723
Net income	$ 473,260	$ 493,160	$ 956,002	$ 845,770
Net income available to common shareholders				
Basic	$ 452,632	$ 472,598	$ 914,718	$ 805,338
Diluted	452,633	472,600	914,719	805,342
Net income per common share				
Basic	$ 3.34	$ 3.26	$ 6.69	$ 5.49
Diluted	3.34	3.26	6.69	5.48
Average common shares outstanding				
Basic	135,433	144,825	136,654	146,746
Diluted	135,464	144,998	136,685	146,941

See accompanying notes to financial statements.

M&T BANK CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (Unaudited)

(In thousands)	Three Months Ended June 30		Six Months Ended June 30	
	2019	2018	2019	2018
Net income	$ 473,260	493,160	$ 956,002	845,770
Other comprehensive income (loss), net of tax and reclassification adjustments:				
Net unrealized gains (losses) on investment securities	69,853	(36,733)	154,444	(137,417)
Cash flow hedges adjustments	102,050	(2,569)	146,971	(13,011)
Foreign currency translation adjustment	(675)	(2,434)	(400)	(1,144)
Defined benefit plans liability adjustments	3,823	7,038	6,108	14,298
Total other comprehensive income (loss)	175,051	(34,698)	307,123	(137,274)
Total comprehensive income	$ 648,311	458,462	$ 1,263,125	708,496

See accompanying notes to financial statements.

M&T BANK CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF CASH FLOWS (Unaudited)

(In thousands)	Six Months Ended June 30 2019	2018
Cash flows from operating activities		
Net income	$ 956,002	$ 845,770
Adjustments to reconcile net income to net cash provided by operating activities		
Provision for credit losses	77,000	78,000
Depreciation and amortization of premises and equipment	101,983	54,092
Amortization of capitalized servicing rights	34,017	24,207
Amortization of core deposit and other intangible assets	10,097	13,020
Provision for deferred income taxes	15,817	(123,980)
Asset write-downs	52,324	5,237
Net gain on sales of assets	(10,521)	(8,738)
Net change in accrued interest receivable, payable	5,650	5,759
Net change in other accrued income and expense	(144,714)	255,124
Net change in loans originated for sale	(218,925)	(756,003)
Net change in trading account assets and liabilities	(398,552)	128,754
Net cash provided by operating activities	480,178	521,242
Cash flows from investing activities		
Proceeds from sales of investment securities		
Available for sale	—	418
Equity and other securities	580,489	505,841
Proceeds from maturities of investment securities		
Available for sale	1,506,273	950,071
Held to maturity	213,086	247,385
Purchases of investment securities		
Available for sale	(2,694)	(5,799)
Held to maturity	(495,277)	—
Equity and other securities	(461,749)	(520,040)
Net (increase) decrease in loans and leases	(1,259,545)	859,071
Net increase in interest-bearing deposits at banks	(686,556)	(1,591,082)
Capital expenditures, net	(82,657)	(37,116)
Net decrease in loan servicing advances	23,663	262,947
Other, net	84,108	(8,708)
Net cash provided (used) by investing activities	(580,859)	662,988
Cash flows from financing activities		
Net increase (decrease) in deposits	1,525,777	(3,157,898)
Net increase in short-term borrowings	213,012	3,064,317
Proceeds from long-term borrowings	—	999,594
Payments on long-term borrowings	(876,581)	(706,370)
Purchases of treasury stock	(767,612)	(1,196,062)
Dividends paid — common	(274,037)	(227,565)
Dividends paid — preferred	(36,260)	(36,260)
Other, net	(17,446)	24,220
Net cash used by financing activities	(233,147)	(1,236,024)
Net decrease in cash, cash equivalents and restricted cash	(333,828)	(51,794)
Cash, cash equivalents and restricted cash at beginning of period	1,605,439	1,420,888
Cash, cash equivalents and restricted cash at end of period	$ 1,271,611	$ 1,369,094
Supplemental disclosure of cash flow information		
Interest received during the period	$ 2,444,623	$ 2,210,063
Interest paid during the period	361,179	218,731
Income taxes paid during the period	243,404	175,619
Supplemental schedule of noncash investing and financing activities		
Real estate acquired in settlement of loans	$ 39,456	$ 36,418
Securitization of residential mortgage loans allocated to		
Available-for-sale investment securities	$ 5,379	$ 10,303
Capitalized servicing rights	83	150
Adoption of lease accounting standard		
Right-of-use assets	$ 393,877	$ —
Other liabilities	398,810	—
Additions to right-of-use assets under operating leases	44,928	—

See accompanying notes to financial statements.

M&T BANK CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY (Unaudited)

Dollars in thousands, except per share	Preferred Stock	Common Stock	Common Stock Issuable	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss), Net	Treasury Stock	Total
Three Months Ended June 30, 2019								
Balance — April 1, 2019	$ 1,231,500	79,871	1,514	6,568,480	11,842,371	(288,009)	(3,848,198)	$ 15,587,529
Total comprehensive income	—	—	—	—	473,260	175,051	—	648,311
Preferred stock cash dividends (a)	—	—	—	—	(18,130)	—	—	(18,130)
Purchases of treasury stock	—	—	—	—	—	—	(401,984)	(401,984)
Stock-based compensation plans:								
Compensation expense, net	—	—	—	9,137	—	—	1,598	10,735
Directors' stock plan	—	—	—	(32)	—	—	571	539
Deferred compensation plans, net, including dividend equivalents	—	—	12	(11)	(21)	—	20	—
Performance share unit dividends	—	—	—	29	(29)	—	—	—
Common stock cash dividends — $1.00 per share	—	—	—	—	(135,173)	—	—	(135,173)
Balance — June 30, 2019	$ 1,231,500	79,871	1,526	6,577,603	12,162,278	(112,958)	(4,247,993)	$ 15,691,827
Six Months Ended June 30, 2019								
Balance — January 1, 2019	$ 1,231,500	79,883	1,726	6,579,342	11,516,672	(420,081)	(3,528,851)	$ 15,460,191
Total comprehensive income	—	—	—	—	956,002	307,123	—	1,263,125
Preferred stock cash dividends (a)	—	—	—	—	(36,260)	—	—	(36,260)
Purchases of treasury stock	—	—	—	—	—	—	(767,612)	(767,612)
Stock-based compensation plans:								
Compensation expense, net	—	(12)	—	1,531	—	—	27,336	28,855
Exercises of stock options, net	—	—	—	(2,818)	—	—	7,545	4,727
Stock purchase plan	—	—	—	(67)	—	—	11,899	11,832
Directors' stock plan	—	—	—	(116)	—	—	1,184	1,068
Deferred compensation plans, net, including dividend equivalents	—	—	(200)	(327)	(43)	—	506	(64)
Performance share unit dividends	—	—	—	58	(58)	—	—	—
Common stock cash dividends — $2.00 per share	—	—	—	—	(274,035)	—	—	(274,035)
Balance — June 30, 2019	$ 1,231,500	79,871	1,526	6,577,603	12,162,278	(112,958)	(4,247,993)	$ 15,691,827

(continued)

M&T BANK CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY (Unaudited), CONTINUED

Dollars in thousands, except per share	Preferred Stock	Common Stock	Common Stock Issuable	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss), Net	Treasury Stock	Total
Three Months Ended June 30, 2018								
Balance — April 1, 2018	$ 1,231,500	79,884	1,675	6,572,281	10,404,458	(483,243)	(2,096,861)	$ 15,709,694
Total comprehensive income	—	—	—	—	493,160	(34,698)	—	458,462
Preferred stock cash dividends (a)	—	—	—	—	(18,130)	—	—	(18,130)
Exercise of 17,252 Series A stock warrants into 10,115 shares of common stock	—	—	—	(1,668)	—	—	1,668	—
Purchases of treasury stock	—	—	—	—	—	—	(475,096)	(475,096)
Stock-based compensation plans:								
Compensation expense, net	—	—	—	9,168	—	—	445	9,613
Exercises of stock options, net	—	—	—	(457)	—	—	9,028	8,571
Directors' stock plan	—	—	—	75	—	—	528	603
Deferred compensation plans, net, including dividend equivalents	—	—	16	(4)	(19)	—	6	(1)
Common stock cash dividends — $.80 per share	—	—	—	—	(115,831)	—	—	(115,831)
Balance — June 30, 2018	$ 1,231,500	79,884	1,691	6,579,395	10,763,638	(517,941)	(2,560,282)	$ 15,577,885
Six Months Ended June 30, 2018								
Balance — January 1, 2018	$ 1,231,500	79,909	1,847	6,590,855	10,164,804	(363,814)	(1,454,282)	$ 16,250,819
Cumulative effect of change in accounting principle — equity securities	—	—	—	—	16,853	(16,853)	—	—
Total comprehensive income	—	—	—	—	845,770	(137,274)	—	708,496
Preferred stock cash dividends (a)	—	—	—	—	(36,260)	—	—	(36,260)
Exercise of 54,226 Series A stock warrants into 32,668 shares of common stock	—	—	—	(5,123)	—	—	5,123	—
Purchases of treasury stock	—	—	—	—	—	—	(1,196,062)	(1,196,062)
Stock-based compensation plans:								
Compensation expense, net	—	(25)	—	(6,194)	—	—	21,665	15,446
Exercises of stock options, net	—	—	—	(2,402)	—	—	53,073	50,671
Stock purchase plan	—	—	—	2,358	—	—	8,766	11,124
Directors' stock plan	—	—	—	149	—	—	1,043	1,192
Deferred compensation plans, net, including dividend equivalents	—	—	(156)	(248)	(37)	—	392	(49)
Common stock cash dividends — $1.55 per share	—	—	—	—	(227,492)	—	—	(227,492)
Balance — June 30, 2018	$ 1,231,500	79,884	1,691	6,579,395	10,763,638	(517,941)	(2,560,282)	$ 15,577,885

(a) For each of the three-month periods ended June 30, 2019 and 2018, dividends per preferred share were: Preferred Series A- $15.9375; Preferred Series C - $15.9375; Preferred Series E - $16.125; and Preferred Series F - $128.125. For each of the six-month periods ended June 30, 2019 and 2018, dividends per preferred share were: Preferred Series A- $31.875; Preferred Series C - $31.875; Preferred Series E - $32.25; and Preferred Series F - $256.25.

See accompanying notes to financial statements.

1. Significant accounting policies

The consolidated interim financial statements of M&T Bank Corporation ("M&T") and subsidiaries ("the Company") were compiled in accordance with generally accepted accounting principles ("GAAP") using the accounting policies set forth in note 1 of Notes to Financial Statements included in Form 10-K for the year ended December 31, 2018 ("2018 Annual Report"), except that effective January 1, 2019 the Company adopted accounting guidance that is discussed in notes 3, 4 and 16 herein. The financial statements contain all adjustments which are, in the opinion of management, necessary for a fair statement of the Company's financial position, results of operations and cash flows for the interim periods presented.

2. Investment securities

On January 1, 2018, the Company adopted amended guidance requiring equity investments with readily determinable fair values to be measured at fair value with changes in fair value recognized in the consolidated statement of income. This amended guidance excludes equity method investments, investments in consolidated subsidiaries, exchange membership ownership interests, and Federal Home Loan Bank of New York and Federal Reserve Bank of New York capital stock. Upon adoption the Company reclassified $17 million, after-tax effect, from accumulated other comprehensive income to retained earnings, representing the difference between fair value and the cost basis of equity investments with readily determinable fair values at January 1, 2018.

The amortized cost and estimated fair value of investment securities were as follows:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
		(In thousands)		
June 30, 2019				
Investment securities available for sale:				
U.S. Treasury and federal agencies	$ 431,334	$ 17	$ 1,538	$ 429,813
Obligations of states and political subdivisions	1,015	3	3	1,015
Mortgage-backed securities:				
Government issued or guaranteed	6,789,309	66,806	37,782	6,818,333
Privately issued	16	—	—	16
Other debt securities	137,771	1,118	7,726	131,163
	7,359,445	67,944	47,049	7,380,340
Investment securities held to maturity:				
U.S. Treasury and federal agencies	946,782	1,547	—	948,329
Obligations of states and political subdivisions	5,415	32	—	5,447
Mortgage-backed securities:				
Government issued or guaranteed	2,543,906	37,595	4,505	2,576,996
Privately issued	104,592	11,986	20,730	95,848
Other debt securities	3,538	—	—	3,538
	3,604,233	51,160	25,235	3,630,158
Total debt securities	$ 10,963,678	$ 119,104	$ 72,284	$ 11,010,498
Equity and other securities:				
Readily marketable equity — at fair value	$ 114,565	$ 37,558	$ 322	$ 151,801
Other — at cost	443,875	—	—	443,875
Total equity and other securities	$ 558,440	$ 37,558	$ 322	$ 595,676

2. Investment securities, continued

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
		(In thousands)		
December 31, 2018				
Investment securities available for sale:				
U.S. Treasury and federal agencies	$ 1,346,782	$ —	$ 9,851	$ 1,336,931
Obligations of states and political subdivisions	1,660	4	5	1,659
Mortgage-backed securities:				
Government issued or guaranteed	7,383,340	15,754	182,103	7,216,991
Privately issued	24	—	2	22
Other debt securities	137,617	770	11,481	126,906
	8,869,423	16,528	203,442	8,682,509
Investment securities held to maturity:				
U.S. Treasury and federal agencies	446,542	—	239	446,303
Obligations of states and political subdivisions	7,494	22	12	7,504
Mortgage-backed securities:				
Government issued or guaranteed	2,745,776	4,165	55,111	2,694,830
Privately issued	113,160	12,345	22,327	103,178
Other debt securities	3,668	—	—	3,668
	3,316,640	16,532	77,689	3,255,483
Total debt securities	$ 12,186,063	$ 33,060	$ 281,131	$ 11,937,992
Equity and other securities:				
Readily marketable equity — at fair value	$ 77,440	$ 17,295	$ 818	$ 93,917
Other — at cost	599,747	—	—	599,747
Total equity and other securities	$ 677,187	$ 17,295	$ 818	$ 693,664

There were no significant gross realized gains or losses from sales of investment securities for the three-month and six-month periods ended June 30, 2019 and 2018. Net unrealized gains recorded as gain (loss) on bank investment securities in the consolidated statement of income during the three months and six months ended June 30, 2019 were $9 million and $21 million, respectively, compared with net unrealized gains of $2 million during the three months ended June 30, 2018 and net unrealized losses of $7 million during the six months ended June 30, 2018.

2. Investment securities, continued

At June 30, 2019, the amortized cost and estimated fair value of debt securities by contractual maturity were as follows:

	Amortized Cost	Estimated Fair Value
	(In thousands)	
Debt securities available for sale:		
Due in one year or less	$ 429,891	428,384
Due after one year through five years	8,048	8,048
Due after five years through ten years	102,181	99,357
Due after ten years	30,000	26,202
	570,120	561,991
Mortgage-backed securities available for sale	6,789,325	6,818,349
	$ 7,359,445	7,380,340
Debt securities held to maturity:		
Due in one year or less	$ 948,757	950,308
Due after one year through five years	3,440	3,468
Due after ten years	3,538	3,538
	955,735	957,314
Mortgage-backed securities held to maturity	2,648,498	2,672,844
	$ 3,604,233	3,630,158

2. Investment securities, continued

A summary of investment securities that as of June 30, 2019 and December 31, 2018 had been in a continuous unrealized loss position for less than twelve months and those that had been in a continuous unrealized loss position for twelve months or longer follows:

	Less Than 12 Months		12 Months or More	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
	(In thousands)			
June 30, 2019				
Investment securities available for sale:				
U.S. Treasury and federal agencies	$ —	—	428,193	(1,538)
Obligations of states and political subdivisions	—	—	457	(3)
Mortgage-backed securities:				
Government issued or guaranteed	4,795	(28)	2,911,625	(37,754)
Other debt securities	45,420	(474)	67,921	(7,252)
	50,215	(502)	3,408,196	(46,547)
Investment securities held to maturity:				
Mortgage-backed securities:				
Government issued or guaranteed	—	—	318,799	(4,505)
Privately issued	—	—	50,757	(20,730)
	—	—	369,556	(25,235)
Total	$ 50,215	(502)	3,777,752	(71,782)
December 31, 2018				
Investment securities available for sale:				
U.S. Treasury and federal agencies	$ 273	(2)	1,335,559	(9,849)
Obligations of states and political subdivisions	629	(5)	—	—
Mortgage-backed securities:				
Government issued or guaranteed	405,558	(2,892)	5,646,773	(179,211)
Privately issued	22	(2)	—	—
Other debt securities	53,478	(2,187)	66,014	(9,294)
	459,960	(5,088)	7,048,346	(198,354)
Investment securities held to maturity:				
U.S. Treasury and federal agencies	446,303	(239)	—	—
Obligations of states and political subdivisions	—	—	3,126	(12)
Mortgage-backed securities:				
Government issued or guaranteed	179,354	(989)	2,082,723	(54,122)
Privately issued	—	—	51,943	(22,327)
	625,657	(1,228)	2,137,792	(76,461)
Total	$ 1,085,617	(6,316)	9,186,138	(274,815)

The Company owned 801 individual debt securities with aggregate gross unrealized losses of $72 million at June 30, 2019. Based on a review of each of the securities in the investment securities portfolio at June 30, 2019, the Company concluded that it expected to recover the amortized cost basis of its investment. As of June 30, 2019, the Company does not intend to sell nor is it anticipated that it would be required to sell any of its impaired investment securities at a loss. At June 30, 2019, the Company has not identified events or changes in circumstances which may have a significant adverse effect on the fair value of the $444 million of cost method equity securities.

3. Loans and leases and the allowance for credit losses

A summary of current, past due and nonaccrual loans as of June 30, 2019 and December 31, 2018 follows:

	Current	30-89 Days Past Due	Accruing Loans Past Due 90 Days or More (a)	Accruing Loans Acquired at a Discount Past Due 90 days or More (b)	Purchased Impaired (c)	Nonaccrual	Total
				(In thousands)			
June 30, 2019							
Commercial, financial, leasing, etc.	$23,177,367	26,974	3,332	—	2	223,733	$23,431,408
Real estate:							
Commercial	25,829,322	146,704	12,450	390	12,867	203,116	26,204,849
Residential builder and developer	1,665,951	6,495	—	—	468	5,985	1,678,899
Other commercial construction	7,217,573	55,060	4,600	—	625	32,769	7,310,627
Residential	13,206,787	462,391	321,810	5,981	172,718	210,922	14,380,609
Residential — limited documentation	2,067,375	81,857	—	—	76,345	87,551	2,313,128
Consumer:							
Home equity lines and loans	4,562,840	29,972	—	4,360	—	66,927	4,664,099
Recreational finance	4,759,183	24,485	—	295	—	11,153	4,795,116
Automobile	3,639,155	70,177	—	—	—	20,170	3,729,502
Other	1,315,662	12,515	6,533	32,053	—	3,058	1,369,821
Total	$87,441,215	916,630	348,725	43,079	263,025	865,384	$89,878,058
December 31, 2018							
Commercial, financial, leasing, etc.	$22,701,020	39,798	2,567	168	—	234,423	$22,977,976
Real estate:							
Commercial	25,250,983	134,474	11,457	10	9,769	203,672	25,610,365
Residential builder and developer	1,665,178	20,333	—	—	—	4,798	1,690,309
Other commercial construction	6,982,077	43,615	14,344	—	641	22,205	7,062,882
Residential	13,591,790	404,808	189,682	6,650	203,044	233,352	14,629,326
Residential — limited documentation	2,278,040	72,544	—	—	89,851	84,685	2,525,120
Consumer:							
Home equity lines and loans	4,758,513	25,416	—	5,033	—	71,292	4,860,254
Recreational finance	4,085,781	29,947	—	235	—	11,199	4,127,162
Automobile	3,555,757	79,804	—	—	—	23,359	3,658,920
Other	1,271,811	15,598	4,477	27,654	—	4,623	1,324,163
Total	$86,140,950	866,337	222,527	39,750	303,305	893,608	$88,466,477

(a) Excludes loans acquired at a discount.

(b) Loans acquired at a discount that were recorded at fair value at acquisition date. This category does not include purchased impaired loans that are presented separately.

(c) Accruing loans acquired at a discount that were impaired at acquisition date and recorded at fair value.

3. Loans and leases and the allowance for credit losses, continued

One-to-four family residential mortgage loans held for sale were $294 million and $205 million at June 30, 2019 and December 31, 2018, respectively. Commercial real estate loans held for sale were $504 million at June 30, 2019 and $347 million at December 31, 2018.

The outstanding principal balance and the carrying amount of loans acquired at a discount that were recorded at fair value at the acquisition date and included in the consolidated balance sheet were as follows:

	June 30, 2019	December 31, 2018
	(In thousands)	
Outstanding principal balance	$ 920,481	$ 1,016,785
Carrying amount:		
Commercial, financial, leasing, etc.	23,648	27,073
Commercial real estate	125,737	135,047
Residential real estate	415,242	473,511
Consumer	90,410	91,860
	$ 655,037	$ 727,491

Purchased impaired loans included in the table above totaled $263 million at June 30, 2019 and $303 million at December 31, 2018, representing less than 1% of the Company's assets as of each date. A summary of changes in the accretable yield for loans acquired at a discount for the three months and six months ended June 30, 2019 and 2018 follows:

	Three Months Ended June 30			
	2019		2018	
	Purchased Impaired	Other Acquired	Purchased Impaired	Other Acquired
	(In thousands)			
Balance at beginning of period	$ 140,317	$ 93,687	$ 149,007	$ 118,184
Interest income	(9,632)	(9,666)	(7,969)	(15,394)
Reclassifications from nonaccretable balance	16,419	3,457	8,350	10,998
Other (a)	—	3,433	—	3,927
Balance at end of period	$ 147,104	$ 90,911	$ 149,388	$ 117,715

	Six Months Ended June 30			
	2019		2018	
	Purchased Impaired	Other Acquired	Purchased Impaired	Other Acquired
	(In thousands)			
Balance at beginning of period	$ 147,210	$ 96,907	$ 157,918	$ 133,162
Interest income	(27,714)	(19,383)	(17,788)	(30,506)
Reclassifications from nonaccretable balance	27,608	8,322	9,258	11,205
Other (a)	—	5,065	—	3,854
Balance at end of period	$ 147,104	$ 90,911	$ 149,388	$ 117,715

(a) Other changes in expected cash flows including changes in interest rates and prepayment assumptions.

3. Loans and leases and the allowance for credit losses, continued

Changes in the allowance for credit losses for the three months ended June 30, 2019 were as follows:

	Commercial, Financial, Leasing, etc.	Real Estate		Consumer	Unallocated	Total
		Commercial	Residential			
	(In thousands)					
Beginning balance	$ 335,620	337,995	65,136	203,045	77,541	$ 1,019,337
Provision for credit losses	10,337	14,501	(2,376)	31,594	944	55,000
Net charge-offs						
Charge-offs	(16,608)	(10,165)	(3,263)	(39,370)	—	(69,406)
Recoveries	6,506	965	1,514	15,951	—	24,936
Net charge-offs	(10,102)	(9,200)	(1,749)	(23,419)	—	(44,470)
Ending balance	$ 335,855	343,296	61,011	211,220	78,485	$ 1,029,867

Changes in the allowance for credit losses for the three months ended June 30, 2018 were as follows:

	Commercial, Financial, Leasing, etc.	Real Estate		Consumer	Unallocated	Total
		Commercial	Residential			
	(In thousands)					
Beginning balance	$ 326,071	367,717	73,047	173,841	78,995	$ 1,019,671
Provision for credit losses	11,250	(10,845)	5,242	30,801	(1,448)	35,000
Net charge-offs						
Charge-offs	(14,900)	(4,548)	(3,966)	(34,033)	—	(57,447)
Recoveries	6,409	1,437	1,800	12,378	—	22,024
Net charge-offs	(8,491)	(3,111)	(2,166)	(21,655)	—	(35,423)
Ending balance	$ 328,830	353,761	76,123	182,987	77,547	$ 1,019,248

Changes in the allowance for credit losses for the six months ended June 30, 2019 were as follows:

	Commercial, Financial, Leasing, etc.	Real Estate		Consumer	Unallocated	Total
		Commercial	Residential			
	(In thousands)					
Beginning balance	$ 330,055	341,655	69,125	200,564	78,045	$ 1,019,444
Provision for credit losses	16,608	10,298	(4,823)	54,477	440	77,000
Net charge-offs						
Charge-offs	(25,108)	(10,448)	(6,635)	(72,315)	—	(114,506)
Recoveries	14,300	1,791	3,344	28,494	—	47,929
Net charge-offs	(10,808)	(8,657)	(3,291)	(43,821)	—	(66,577)
Ending balance	$ 335,855	343,296	61,011	211,220	78,485	$ 1,029,867

3. Loans and leases and the allowance for credit losses, continued

Changes in the allowance for credit losses for the six months ended June 30, 2018 were as follows:

	Commercial, Financial, Leasing, etc.	Real Estate		Consumer	Unallocated	Total
		Commercial	Residential			
	(In thousands)					
Beginning balance	$ 328,599	374,085	65,405	170,809	78,300	$ 1,017,198
Provision for credit losses	18,480	(16,070)	15,728	60,615	(753)	78,000
Net charge-offs						
Charge-offs	(29,481)	(5,914)	(8,320)	(70,484)	—	(114,199)
Recoveries	11,232	1,660	3,310	22,047	—	38,249
Net charge-offs	(18,249)	(4,254)	(5,010)	(48,437)	—	(75,950)
Ending balance	$ 328,830	353,761	76,123	182,987	77,547	$ 1,019,248

Despite the allocation in the preceding tables, the allowance for credit losses is general in nature and is available to absorb losses from any loan or lease type.

In establishing the allowance for credit losses, the Company estimates losses attributable to specific troubled credits identified through both normal and targeted credit review processes and also estimates losses inherent in other loans and leases on a collective basis. For purposes of determining the level of the allowance for credit losses, the Company evaluates its loan and lease portfolio by loan type. The amounts of loss components in the Company’s loan and lease portfolios are determined through a loan-by-loan analysis of larger balance commercial loans and commercial real estate loans that are in nonaccrual status and by applying loss factors to groups of loan balances based on loan type and management’s classification of such loans under the Company’s loan grading system. Measurement of the specific loss components is typically based on expected future cash flows, collateral values and other factors that may impact the borrower’s ability to pay. In determining the allowance for credit losses, the Company utilizes a loan grading system which is applied to commercial and commercial real estate credits on an individual loan basis. Loan grades are assigned loss component factors that reflect the Company’s loss estimate for each group of loans and leases. Factors considered in assigning loan grades and loss component factors include borrower-specific information related to expected future cash flows and operating results, collateral values, geographic location, financial condition and performance, payment status, and other information; levels of and trends in portfolio charge-offs and recoveries; levels of and trends in portfolio delinquencies and impaired loans; changes in the risk profile of specific portfolios; trends in volume and terms of loans; effects of changes in credit concentrations; and observed trends and practices in the banking industry.

3. Loans and leases and the allowance for credit losses, continued

Information with respect to loans and leases that were considered impaired as of June 30, 2019 and December 31, 2018 and for the three-month and six-month periods ended June 30, 2019 and 2018 follows.

	June 30, 2019			December 31, 2018		
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Recorded Investment	Unpaid Principal Balance	Related Allowance
	(In thousands)					
With an allowance recorded:						
Commercial, financial, leasing, etc.	$ 192,660	220,662	36,496	153,478	175,549	46,034
Real estate:						
Commercial	63,236	70,777	8,276	110,253	125,117	11,937
Residential builder and developer	7,490	8,059	286	5,981	6,557	462
Other commercial construction	22,851	34,782	1,901	10,563	11,113	640
Residential	125,607	147,097	6,220	124,974	147,817	5,402
Residential — limited documentation	69,340	83,920	2,600	74,156	90,066	3,000
Consumer:						
Home equity lines and loans	47,437	52,838	9,060	47,982	53,248	9,135
Recreational finance	5,701	9,248	1,178	6,138	9,163	1,261
Automobile	3,374	3,458	686	3,527	3,599	729
Other	4,832	8,175	974	5,203	8,380	1,046
	542,528	639,016	67,677	542,255	630,609	79,646
With no related allowance recorded:						
Commercial, financial, leasing, etc.	73,247	77,171	—	105,507	136,128	—
Real estate:						
Commercial	150,804	168,046	—	113,376	124,657	—
Residential builder and developer	4,555	4,602	—	2,593	2,602	—
Other commercial construction	9,918	10,313	—	11,710	11,880	—
Residential	17,530	23,155	—	15,379	20,496	—
Residential — limited documentation	5,397	9,344	—	5,631	9,796	—
	261,451	292,631	—	254,196	305,559	—
Total:						
Commercial, financial, leasing, etc.	265,907	297,833	36,496	258,985	311,677	46,034
Real estate:						
Commercial	214,040	238,823	8,276	223,629	249,774	11,937
Residential builder and developer	12,045	12,661	286	8,574	9,159	462
Other commercial construction	32,769	45,095	1,901	22,273	22,993	640
Residential	143,137	170,252	6,220	140,353	168,313	5,402
Residential — limited documentation	74,737	93,264	2,600	79,787	99,862	3,000
Consumer:						
Home equity lines and loans	47,437	52,838	9,060	47,982	53,248	9,135
Recreational finance	5,701	9,248	1,178	6,138	9,163	1,261
Automobile	3,374	3,458	686	3,527	3,599	729
Other	4,832	8,175	974	5,203	8,380	1,046
Total	$ 803,979	931,647	67,677	796,451	936,168	79,646

3. Loans and leases and the allowance for credit losses, continued

	Three Months Ended June 30, 2019			Three Months Ended June 30, 2018		
		Interest Income Recognized			Interest Income Recognized	
	Average Recorded Investment	Total	Cash Basis	Average Recorded Investment	Total	Cash Basis
	(In thousands)					
Commercial, financial, leasing, etc.	$ 273,924	3,627	3,627	271,413	1,333	1,333
Real estate:						
Commercial	214,775	2,032	2,032	168,224	3,811	3,811
Residential builder and developer	9,590	35	35	8,494	—	—
Other commercial construction	22,521	12	12	7,443	53	53
Residential	142,555	2,390	1,004	126,185	2,329	937
Residential — limited documentation	75,940	1,452	218	83,776	1,428	317
Consumer:						
Home equity lines and loans	47,435	406	57	48,644	433	72
Recreational finance	5,808	125	4	1,480	65	3
Automobile	3,450	53	18	12,636	225	14
Other	5,026	142	5	1,586	23	—
Total	$ 801,024	10,274	7,012	729,881	9,700	6,540

	Six Months Ended June 30, 2019			Six Months Ended June 30, 2018		
		Interest Income Recognized			Interest Income Recognized	
	Average Recorded Investment	Total	Cash Basis	Average Recorded Investment	Total	Cash Basis
	(In thousands)					
Commercial, financial, leasing, etc.	$ 269,586	6,665	6,665	271,793	2,116	2,116
Real estate:						
Commercial	220,075	3,123	3,123	175,035	6,958	6,958
Residential builder and developer	9,233	150	150	9,167	1,682	1,682
Other commercial construction	21,460	576	576	8,773	59	59
Residential	141,479	4,412	1,670	123,697	4,231	1,839
Residential — limited documentation	77,089	2,805	426	84,686	3,156	1,013
Consumer:						
Home equity lines and loans	47,496	822	119	48,721	847	158
Recreational finance	5,917	267	8	1,469	128	5
Automobile	3,490	107	37	12,881	449	29
Other	5,122	264	9	1,623	45	1
Total	$ 800,947	19,191	12,783	737,845	19,671	13,860

Commercial loans and commercial real estate loans with a lower expectation of default are assigned one of ten possible “pass” loan grades and are generally ascribed lower loss factors when determining the allowance for credit losses. Loans with an elevated level of credit risk are classified as “criticized” and are ascribed a higher loss factor when determining the allowance for credit losses. Criticized loans may be classified as “nonaccrual” if the Company no longer expects to collect all amounts according to the contractual terms of the loan agreement or the loan is delinquent 90 days or more. Furthermore, criticized nonaccrual commercial loans and commercial real estate loans are considered impaired and, as a result, specific loss allowances on such loans are established within the allowance for credit losses to the extent appropriate in each individual instance.

3. Loans and leases and the allowance for credit losses, continued

The following table summarizes the loan grades applied to the various classes of the Company's commercial loans and commercial real estate loans.

	Commercial, Financial, Leasing, etc.	Real Estate		Other Commercial Construction
		Commercial	Residential Builder and Developer	
	(In thousands)			
June 30, 2019				
Pass	$22,112,126	25,213,055	1,476,023	7,024,168
Criticized accrual	1,095,549	788,678	196,891	253,690
Criticized nonaccrual	223,733	203,116	5,985	32,769
Total	$23,431,408	26,204,849	1,678,899	7,310,627
December 31, 2018				
Pass	$21,693,705	24,539,706	1,546,002	6,890,562
Criticized accrual	1,049,848	866,987	139,509	150,115
Criticized nonaccrual	234,423	203,672	4,798	22,205
Total	$22,977,976	25,610,365	1,690,309	7,062,882

In determining the allowance for credit losses, residential real estate loans and consumer loans are generally evaluated collectively after considering such factors as payment performance and recent loss experience and trends, which are mainly driven by current collateral values in the market place as well as the amount of loan defaults. Loss rates on such loans are determined by reference to recent charge-off history and are evaluated (and adjusted if deemed appropriate) through consideration of other factors including near-term forecasted loss estimates developed by the Company's credit department. In arriving at such forecasts, the Company considers the current estimated fair value of its collateral based on geographical adjustments for home price depreciation/appreciation and overall borrower repayment performance. With regard to collateral values, the realizability of such values by the Company contemplates repayment of any first lien position prior to recovering amounts on a second lien position. However, residential real estate loans and outstanding balances of home equity loans and lines of credit that are more than 150 days past due are generally evaluated for collectibility on a loan-by-loan basis giving consideration to estimated collateral values. The carrying value of residential real estate loans and home equity loans and lines of credit for which a partial charge-off has been recognized totaled $26 million and $21 million, respectively, at June 30, 2019 and $29 million and $23 million, respectively, at December 31, 2018. Residential real estate loans and home equity loans and lines of credit that were more than 150 days past due but did not require a partial charge-off because the net realizable value of the collateral exceeded the outstanding customer balance were $18 million and $31 million, respectively, at June 30, 2019 and $21 million and $31 million, respectively, at December 31, 2018.

The Company also measures additional losses for purchased impaired loans when it is probable that the Company will be unable to collect all cash flows expected at acquisition plus additional cash flows expected to be collected arising from changes in estimates after acquisition. The determination of the allocated portion of the allowance for credit losses is very subjective. Given that inherent subjectivity and potential imprecision involved in determining the allocated portion of the allowance for credit losses, the Company also provides an inherent unallocated portion of the allowance. The unallocated portion of the allowance is intended to recognize probable losses that are not otherwise identifiable and includes management's subjective determination of amounts necessary to provide for the possible use of imprecise estimates in determining the allocated portion of the allowance. Therefore, the level of the unallocated portion of the allowance is primarily reflective of the inherent imprecision in the various calculations used in determining the allocated portion of the allowance for credit losses. Other factors that could also lead to changes in the unallocated portion include the effects of expansion into new markets for which the Company does not have the same degree of familiarity and experience regarding portfolio performance in changing market conditions, the introduction of new loan and lease product types, and other risks associated with the Company's loan portfolio that may not be specifically identifiable.

3. Loans and leases and the allowance for credit losses, continued

The allocation of the allowance for credit losses summarized on the basis of the Company's impairment methodology was as follows:

	Commercial, Financial, Leasing, etc.	Real Estate Commercial	Real Estate Residential	Consumer	Total
			(In thousands)		
June 30, 2019					
Individually evaluated for impairment	$ 36,496	10,463	8,820	11,898	$ 67,677
Collectively evaluated for impairment	299,359	332,833	45,666	199,322	877,180
Purchased impaired	—	—	6,525	—	6,525
Allocated	$ 335,855	343,296	61,011	211,220	951,382
Unallocated					78,485
Total					$ 1,029,867
December 31, 2018					
Individually evaluated for impairment	$ 46,034	13,039	8,402	12,171	$ 79,646
Collectively evaluated for impairment	284,021	328,616	48,326	188,393	849,356
Purchased impaired	—	—	12,397	—	12,397
Allocated	$ 330,055	341,655	69,125	200,564	941,399
Unallocated					78,045
Total					$ 1,019,444

The recorded investment in loans and leases summarized on the basis of the Company's impairment methodology was as follows:

	Commercial, Financial, Leasing, etc.	Real Estate Commercial	Real Estate Residential	Consumer	Total
			(In thousands)		
June 30, 2019					
Individually evaluated for impairment	$ 265,907	258,854	217,874	61,344	$ 803,979
Collectively evaluated for impairment	23,165,499	34,921,561	16,226,800	14,497,194	88,811,054
Purchased impaired	2	13,960	249,063	—	263,025
Total	$ 23,431,408	35,194,375	16,693,737	14,558,538	$ 89,878,058
December 31, 2018					
Individually evaluated for impairment	$ 258,985	254,476	220,140	62,850	$ 796,451
Collectively evaluated for impairment	22,718,991	34,098,670	16,641,411	13,907,649	87,366,721
Purchased impaired	—	10,410	292,895	—	303,305
Total	$ 22,977,976	34,363,556	17,154,446	13,970,499	$ 88,466,477

During the normal course of business, the Company modifies loans to maximize recovery efforts. If the borrower is experiencing financial difficulty and a concession is granted, the Company considers such modifications as troubled debt restructurings and classifies those loans as either nonaccrual loans or renegotiated loans. The types of concessions that the Company grants typically include principal deferrals and interest rate concessions, but may also include other types of concessions.

3. Loans and leases and the allowance for credit losses, continued

The table that follows summarizes the Company's loan modification activities that were considered troubled debt restructurings for the three-month and six-month periods ended June 30, 2019 and 2018:

			Post-modification (a)				
Three Months Ended June 30, 2019	Number	Pre-modification Recorded Investment	Principal Deferral	Interest Rate Reduction	Other	Combination of Concession Types	Total
			(Dollars in thousands)				
Commercial, financial, leasing, etc.	24	$ 2,597	$ 667	$ —	$ —	$ 1,891	$ 2,558
Real estate:							
Commercial	14	10,340	2,577	—	—	7,641	10,218
Other commercial construction	1	1,038	—	—	—	1,033	1,033
Residential	26	7,513	4,008	—	—	4,034	8,042
Residential — limited documentation	2	612	160	—	—	465	625
Consumer:							
Home equity lines and loans	13	1,273	53	—	—	1,225	1,278
Recreational finance	1	15	15	—	—	—	15
Automobile	12	189	189	—	—	—	189
Total	93	$ 23,577	$ 7,669	$ —	$ —	$ 16,289	$ 23,958
Three Months Ended June 30, 2018							
Commercial, financial, leasing, etc.	47	$ 41,390	$ 9,673	$ 29	$ 6,111	$ 25,021	$ 40,834
Real estate:							
Commercial	28	7,200	7,376	175	394	—	7,945
Residential	30	7,951	2,814	—	—	5,766	8,580
Residential — limited documentation	3	584	200	—	—	458	658
Consumer:							
Home equity lines and loans	10	555	—	—	—	559	559
Automobile	19	333	321	—	—	12	333
Total	137	$ 58,013	$ 20,384	$ 204	$ 6,505	$ 31,816	$ 58,909

3. Loans and leases and the allowance for credit losses, continued

Six Months Ended June 30, 2019	Number	Pre-modification Recorded Investment	Post-modification (a) Principal Deferral	Interest Rate Reduction	Other	Combination of Concession Types	Total
		(Dollars in thousands)					
Commercial, financial, leasing, etc.	89	$ 33,212	$ 7,141	$ —	$ —	$ 26,161	$ 33,302
Real estate:							
Commercial	29	19,581	3,564	—	—	15,608	19,172
Residential builder and developer	2	1,330	1,068	—	—	—	1,068
Other commercial construction	2	1,456	—	—	—	1,399	1,399
Residential	43	11,329	5,759	—	—	6,307	12,066
Residential — limited documentation	3	848	399	—	—	465	864
Consumer:							
Home equity lines and loans	20	1,749	90	—	—	1,679	1,769
Recreational finance	5	103	103	—	—	—	103
Automobile	32	506	469	—	—	37	506
Total	225	$ 70,114	$ 18,593	$ —	$ —	$ 51,656	$ 70,249
Six Months Ended June 30, 2018							
Commercial, financial, leasing, etc.	103	$ 89,384	$ 45,346	$ 653	$ 6,111	$ 38,068	$ 90,178
Real estate:							
Commercial	48	13,980	13,200	175	394	927	14,696
Other commercial construction	1	752	746	—	—	—	746
Residential	77	20,587	9,759	—	—	12,668	22,427
Residential — limited documentation	5	879	467	—	—	576	1,043
Consumer:							
Home equity lines and loans	24	1,903	4	—	—	1,907	1,911
Recreational finance	2	49	49	—	—	—	49
Automobile	27	481	469	—	—	12	481
Total	287	$ 128,015	$ 70,040	$ 828	$ 6,505	$ 54,158	$ 131,531

(a) Financial effects impacting the recorded investment included principal payments or advances, charge-offs and capitalized escrow arrearages. The present value of interest rate concessions, discounted at the effective rate of the original loan, was not material.

Troubled debt restructurings are considered to be impaired loans and for purposes of establishing the allowance for credit losses are evaluated for impairment giving consideration to the impact of the modified loan terms on the present value of the loan's expected cash flows. Impairment of troubled debt restructurings that have subsequently defaulted may also be measured based on the loan's observable market price or the fair value of collateral if the loan is collateral-dependent. Charge-offs may also be recognized on troubled debt restructurings that have subsequently defaulted. Loans that were modified as troubled debt restructurings during the twelve months ended June 30, 2019 and 2018 and for which there was a subsequent payment default during the six-month periods ended June 30, 2019 and 2018, respectively, were not material.

The amount of foreclosed residential real estate property held by the Company was $72 million and $77 million at June 30, 2019 and December 31, 2018, respectively. There were $380 million and $391 million at June 30, 2019 and December 31, 2018, respectively, in loans secured by residential real estate that were in the process of foreclosure. Of all loans in the process of foreclosure at June 30, 2019, approximately 33% were classified as purchased impaired and 24% were government guaranteed.

3. Loans and leases and the allowance for credit losses, continued

The Company's loan and lease portfolio includes commercial lease financing receivables consisting of direct financing and leveraged leases for machinery and equipment, railroad equipment, commercial trucks and trailers, and aircraft. Certain leases contain payment schedules that are tied to variable interest rate indices. In general, early termination options are provided if the lessee is not in default, returns the leased equipment and pays an early termination fee. Additionally, options to purchase the underlying asset by the lessee are generally at the fair market value of the equipment. Effective January 1, 2019, the Company adopted new guidance related to lease accounting published by the Financial Accounting Standards Board ("FASB"). Under the new guidance, the accounting applied by lessors is largely unchanged from previous GAAP, however, the guidance eliminates the accounting model for leveraged leases that commence after the effective date of the guidance. A summary of lease financing receivables follows:

	June 30, 2019	December 31, 2018
	(In thousands)	
Commercial leases:		
Direct financings:		
Lease payments receivable	$ 1,188,750	$ 1,155,464
Estimated residual value of leased assets	82,021	85,169
Unearned income	(107,409)	(110,458)
Investment in direct financings	1,163,362	1,130,175
Leveraged leases:		
Lease payments receivable	82,828	85,007
Estimated residual value of leased assets	81,244	81,261
Unearned income	(32,774)	(33,717)
Investment in leveraged leases	131,298	132,551
Total investment in leases	$ 1,294,660	$ 1,262,726
Deferred taxes payable arising from leveraged leases	$ 72,620	$ 74,995

Included within the estimated residual value of leased assets at June 30, 2019 and December 31, 2018 were $37 million and $39 million, respectively, in residual value associated with direct financing leases that are guaranteed by the lessees or others.

At June 30, 2019, the minimum future lease payments to be received from lease financings were as follows:

	(In thousands)
Twelve-month period ending June 30:	
2020	$ 356,518
2021	294,985
2022	223,456
2023	145,794
2024	105,567
Later years	145,258
	$ 1,271,578

4. Operating leases

The January 1, 2019 adoption of new lease accounting guidance resulted in the Company recording right-of-use assets and lease liabilities in the consolidated balance sheet for all operating leases with a term greater than twelve months. In addition, the Company elected the practical expedients that (1) reassessment is not needed for whether any existing contracts are or contain leases, (2) reassessment of the classification of existing operating and finance leases is not required, and (3) a lease that has a term of twelve months or less is not required to apply the asset and liability recognition requirements.

The Company determines whether a contract contains a lease based on whether a contract, or a part of a contract, conveys the right to control the use of an identified asset for a period of time in exchange for consideration. If it is determined that a contract contains a lease, the consideration in the contract is separated between lease and nonlease components (for example, taxes or common area maintenance). In calculating the present value of the lease payments, the Company has utilized its incremental borrowing rate based on electing the original lease term to account for each lease component.

The right-of-use assets and lease liabilities relate to banking offices and other space occupied by the Company and use of certain equipment under noncancelable operating lease agreements, which prior to the adoption of the guidance were not reflected in the consolidated balance sheet.

As of June 30, 2019, the Company reported right-of-use assets recognized as a component of “premises and equipment” and lease liabilities recognized as a component of “accrued interest and other liabilities” in the consolidated balance sheet, as follows:

	June 30, 2019 (In thousands)
Right-of-use assets	$ 395,659
Lease liabilities	422,384

The Company’s noncancelable operating lease agreements expire at various dates over the next 23 years. Real estate leases generally consist of fixed monthly rental payments with certain leases containing escalation clauses. Any variable lease payments or payments for nonlease components are recognized in the consolidated statement of income as a component of “equipment and net occupancy” expense based on actual costs incurred. Some of these real estate leases contain lessee options to extend the term. Those options are included in the lease term when it is determined that it is reasonably certain the option will be exercised.

The Company has noncancelable operating lease agreements for certain equipment related to ATMs, servers, printers and mail machines that are used in the normal course of operations. The ATM leases are either based on the rights to a specific square footage or a license agreement whereby the Company has the right to operate an ATM in a landlord's location. The lease terms generally contain both fixed payments and variable payments that are transaction-based. Given the transaction-based nature of the variable payments, they are excluded from the measurement of the right-of-use asset and lease liability and are recognized in the consolidated statement of income as a component of “equipment and net occupancy” expense when incurred.

4. Operating leases, continued

The following table presents information about the Company's lease costs for operating leases recorded in the consolidated balance sheet, cash paid toward lease liabilities, and the weighted-average remaining term and discount rates of the operating leases.

	Three Months Ended June 30, 2019	Six Months Ended June 30, 2019
	(Dollars in thousands)	
Lease cost		
Operating lease cost	$ 24,902	$ 49,541
Short-term lease cost	28	62
Variable lease cost	623	1,089
Sublease income	(1,904)	(3,821)
Total net lease cost	$ 23,649	$ 46,871
Other information		
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 24,518	$ 44,928
Cash paid toward lease liabilities	25,205	50,861
Weighted-average remaining lease term	7 years	7 years
Weighted-average discount rate	3.2%	3.2%

Minimum lease payments under noncancelable operating leases are summarized in the following table. These minimum lease payments are not materially different from those reported in the 2018 Annual Report.

	(In thousands)
Twelve-month period ending June 30:	
2020	$ 89,301
2021	87,300
2022	71,956
2023	57,685
2024	41,815
Later years	113,403
Total lease payments	$ 461,460
Less: imputed interest	39,076
Total	$ 422,384

All other operating leasing activities were not material to the Company's consolidated results of operations.

5. Borrowings

M&T had $524 million of fixed and variable rate junior subordinated deferrable interest debentures ("Junior Subordinated Debentures") outstanding at June 30, 2019 that are held by various trusts that were issued in connection with the issuance by those trusts of preferred capital securities ("Capital Securities") and common securities ("Common Securities"). The proceeds from the issuances of the Capital Securities and the Common Securities were used by the trusts to purchase the Junior Subordinated Debentures. The Common Securities of each of those trusts are wholly owned by M&T and are the only class of each trust's securities possessing general voting powers. The Capital Securities represent preferred undivided interests in the assets of the corresponding trust. Under the Federal Reserve Board's risk-based capital guidelines, the securities are includable in M&T's Tier 2 regulatory capital.

Holders of the Capital Securities receive preferential cumulative cash distributions unless M&T exercises its right to extend the payment of interest on the Junior Subordinated Debentures as allowed by the terms of each such debenture, in which case payment of distributions on the respective Capital Securities will be deferred for comparable periods. During an extended interest period, M&T may not pay dividends or distributions on, or repurchase, redeem or acquire any shares of its capital stock. In general, the agreements governing the Capital Securities, in the aggregate, provide a full, irrevocable and unconditional guarantee by M&T of the payment of distributions on, the redemption of, and any liquidation distribution with respect to the Capital Securities. The obligations under such guarantee and the Capital Securities are subordinate and junior in right of payment to all senior indebtedness of M&T.

The Capital Securities will remain outstanding until the Junior Subordinated Debentures are repaid at maturity, are redeemed prior to maturity or are distributed in liquidation to the trusts. The Capital Securities are mandatorily redeemable in whole, but not in part, upon repayment at the stated maturity dates (ranging from 2027 to 2033) of the Junior Subordinated Debentures or the earlier redemption of the Junior Subordinated Debentures in whole upon the occurrence of one or more events set forth in the indentures relating to the Capital Securities, and in whole or in part at any time after an optional redemption prior to contractual maturity contemporaneously with the optional redemption of the related Junior Subordinated Debentures in whole or in part, subject to possible regulatory approval.

Also included in long-term borrowings are agreements to repurchase securities of $103 million and $409 million at June 30, 2019 and December 31, 2018, respectively. The agreements reflect various repurchase dates through 2020, however, the contractual maturities of the underlying investment securities extend beyond such repurchase dates. The agreements are subject to legally enforceable master netting arrangements, however, the Company has not offset any amounts related to these agreements in its consolidated financial statements. The Company posted collateral consisting primarily of government guaranteed mortgage-backed securities of $109 million and $428 million at June 30, 2019 and December 31, 2018, respectively.

6. Revenue from contracts with customers

A significant amount of the Company's revenues are derived from net interest income on financial assets and liabilities, mortgage banking revenues, trading account and foreign exchange gains, investment securities gains, loan and letter of credit fees, income from bank-owned life insurance, and certain other revenues that are generally excluded from the scope of accounting guidance for revenue from contracts with customers.

For noninterest income revenue streams, the Company recognizes the expected amount of consideration as revenue when the performance obligations related to the services under the terms of a contract are satisfied. The Company's contracts generally do not contain terms that necessitate significant judgment to determine the amount of revenue to recognize.

The Company generally charges customer accounts or otherwise bills customers upon completion of its services. Typically the Company's contracts with customers have a duration of one year or less and payment for services is received at least annually, but oftentimes more frequently as services are provided. At June 30, 2019 and December 31, 2018, the Company had $58 million and $56 million, respectively, of uncollected amounts receivable related to recognized revenue from the sources in the accompanying tables. Such amounts are classified in accrued interest and other assets in the Company's consolidated balance sheet. In certain situations the Company is paid in advance of providing services and defers the recognition of revenue until its service obligation is satisfied. At June 30, 2019 and December 31, 2018, the Company had deferred revenue of $43 million related to the sources in the accompanying tables recorded in accrued interest and other liabilities in the consolidated balance sheet.

The following tables summarize sources of the Company's noninterest income during the three-month and six-month periods ended June 30, 2019 and 2018 that are subject to the noted accounting guidance.

	Business Banking	Commercial Banking	Commercial Real Estate	Discretionary Portfolio	Residential Mortgage Banking	Retail Banking	All Other	Total
Three Months Ended June 30, 2019				(In thousands)				
Classification in consolidated statement of income								
Service charges on deposit accounts	$ 15,175	23,094	2,362	—	2	65,661	1,493	$ 107,787
Trust income	7	224	—	—	—	—	144,151	144,382
Brokerage services income	—	—	—	—	—	—	12,478	12,478
Other revenues from operations:								
Merchant discount and credit card fees	9,895	13,129	496	—	—	4,566	602	28,688
Other	—	3,145	2,680	641	1,033	9,329	8,595	25,423
	$ 25,077	39,592	5,538	641	1,035	79,556	167,319	$ 318,758
Three Months Ended June 30, 2018								
Classification in consolidated statement of income								
Service charges on deposit accounts	$ 15,611	24,270	2,451	—	3	63,015	1,434	$ 106,784
Trust income	—	—	—	—	—	—	137,641	137,641
Brokerage services income	—	—	—	—	—	—	12,629	12,629
Other revenues from operations:								
Merchant discount and credit card fees	8,334	12,542	428	—	—	4,140	618	26,062
Other	—	3,646	2,215	413	927	9,613	7,598	24,412
	$ 23,945	40,458	5,094	413	930	76,768	159,920	$ 307,528

6. Revenue from contracts with customers, continued

Six Months Ended June 30, 2019	Business Banking	Commercial Banking	Commercial Real Estate	Discretionary Portfolio	Residential Mortgage Banking	Retail Banking	All Other	Total
				(In thousands)				
Classification in consolidated statement of income								
Service charges on deposit accounts	30,284	46,304	4,888	—	4	126,812	2,607	210,899
Trust income	12	438	—	—	—	—	276,718	277,168
Brokerage services income	—	—	—	—	—	—	24,954	24,954
Other revenues from operations:								
Merchant discount and credit card fees	18,777	25,221	1,102	—	—	7,704	1,022	53,826
Other	—	4,147	4,468	1,042	2,097	17,823	19,083	48,660
	$ 49,073	76,110	10,458	1,042	2,101	152,339	324,384	$ 615,507
Six Months Ended June 30, 2018								
Classification in consolidated statement of income								
Service charges on deposit accounts	$ 31,015	48,924	5,215	—	6	123,616	3,123	$ 211,899
Trust income	—	—	—	—	—	—	269,016	269,016
Brokerage services income	—	—	—	—	—	—	26,021	26,021
Other revenues from operations:								
Merchant discount and credit card fees	15,837	25,254	982	—	—	7,528	1,233	50,834
Other	—	5,209	3,074	865	1,970	19,478	16,706	47,302
	$ 46,852	79,387	9,271	865	1,976	150,622	316,099	$ 605,072

7. Pension plans and other postretirement benefits

The Company provides defined benefit pension and other postretirement benefits (including health care and life insurance benefits) to qualified retired employees. Net periodic defined benefit cost for defined benefit plans consisted of the following:

	Pension Benefits		Other Postretirement Benefits	
	Three Months Ended June 30			
	2019	2018	2019	2018
	(In thousands)			
Service cost	$ 4,559	5,069	229	243
Interest cost on projected benefit obligation	20,590	18,548	569	589
Expected return on plan assets	(30,470)	(30,688)	—	—
Amortization of prior service cost (credit)	154	153	(1,190)	(1,189)
Amortization of net actuarial loss (gain)	6,546	10,796	(323)	(213)
Net periodic cost (benefit)	$ 1,379	3,878	(715)	(570)

	Pension Benefits		Other Postretirement Benefits	
	Six Months Ended June 30			
	2019	2018	2019	2018
	(In thousands)			
Service cost	$ 8,646	10,172	429	469
Interest cost on projected benefit obligation	40,790	37,353	1,172	1,146
Expected return on plan assets	(61,070)	(61,563)	—	—
Amortization of prior service cost (credit)	279	278	(2,365)	(2,364)
Amortization of net actuarial loss (gain)	10,996	21,896	(623)	(413)
Net periodic cost (benefit)	$ (359)	8,136	(1,387)	(1,162)

Service cost is reflected in salaries and employee benefits expense in the consolidated statement of income. The other components of net periodic cost (benefit) are reflected in other costs of operations. Expenses incurred in connection with the Company's defined contribution pension and retirement savings plans totaled $19 million and $17 million for the three months ended June 30, 2019 and 2018, respectively, and $41 million and $38 million for the six months ended June 30, 2019 and 2018, respectively, and are included in salaries and employee benefits expense.

8. Earnings per common share

The computations of basic earnings per common share follow:

	Three Months Ended June 30		Six Months Ended June 30	
	2019	2018	2019	2018
	(In thousands, except per share)			
Income available to common shareholders:				
Net income	$ 473,260	493,160	956,002	845,770
Less: Preferred stock dividends (a)	(18,130)	(18,130)	(36,260)	(36,260)
Net income available to common equity	455,130	475,030	919,742	809,510
Less: Income attributable to unvested stock-based compensation awards	(2,498)	(2,432)	(5,024)	(4,172)
Net income available to common shareholders	$ 452,632	472,598	914,718	805,338
Weighted-average shares outstanding:				
Common shares outstanding (including common stock issuable) and unvested stock-based compensation awards	136,182	145,571	137,403	147,510
Less: Unvested stock-based compensation awards	(749)	(746)	(749)	(764)
Weighted-average shares outstanding	135,433	144,825	136,654	146,746
Basic earnings per common share	$ 3.34	3.26	6.69	5.49

(a) *Including impact of not as yet declared cumulative dividends.*

The computations of diluted earnings per common share follow:

	Three Months Ended June 30		Six Months Ended June 30	
	2019	2018	2019	2018
	(In thousands, except per share)			
Net income available to common equity	$ 455,130	475,030	919,742	809,510
Less: Income attributable to unvested stock-based compensation awards	(2,497)	(2,430)	(5,023)	(4,168)
Net income available to common shareholders	$ 452,633	472,600	914,719	805,342
Adjusted weighted-average shares outstanding:				
Common and unvested stock-based compensation awards	136,182	145,571	137,403	147,510
Less: Unvested stock-based compensation awards	(749)	(746)	(749)	(764)
Plus: Incremental shares from assumed conversion of stock-based compensation awards and warrants to purchase common stock	31	173	31	195
Adjusted weighted-average shares outstanding	135,464	144,998	136,685	146,941
Diluted earnings per common share	$ 3.34	3.26	6.69	5.48

GAAP defines unvested share-based awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) as participating securities that shall be included in the computation of earnings per common share pursuant to the two-class method. The Company has issued stock-based compensation awards in the form of restricted stock and restricted stock units which, in accordance with GAAP, are considered participating securities.

Stock-based compensation awards and warrants to purchase common stock of M&T representing 115,293 and 212,244 common shares during the three-month periods ended June 30, 2019 and 2018, respectively, and 197,598 and 224,844 common shares during the six-month periods ended June 30, 2019 and 2018, respectively, were not included in the computations of diluted earnings per common share because the effect on those periods would have been antidilutive.

9. Comprehensive income

The following tables display the components of other comprehensive income (loss) and amounts reclassified from accumulated other comprehensive income (loss) to net income:

	Investment Securities	Defined Benefit Plans	Other	Total Amount Before Tax	Income Tax	Net
	(In thousands)					
Balance — January 1, 2019	$ (200,107)	(354,502)	(14,719)	$ (569,328)	149,247	$ (420,081)
Other comprehensive income before reclassifications:						
Unrealized holding gains, net	207,802	—	—	207,802	(54,609)	153,193
Foreign currency translation adjustment	—	—	(507)	(507)	107	(400)
Unrealized gains on cash flow hedges	—	—	188,272	188,272	(49,497)	138,775
Total other comprehensive income before reclassifications	207,802	—	187,765	395,567	(103,999)	291,568
Amounts reclassified from accumulated other comprehensive income that (increase) decrease net income:						
Amortization of unrealized holding losses on held-to-maturity (“HTM”) securities	1,691	—	—	1,691 (a)	(445)	1,246
Losses realized in net income	7	—	—	7 (b)	(2)	5
Accretion of net gain on terminated cash flow hedges	—	—	(56)	(56) (c)	14	(42)
Net yield adjustment from cash flow hedges currently in effect	—	—	11,176	11,176 (a)	(2,938)	8,238
Amortization of prior service credit	—	(2,086)	—	(2,086) (d)	548	(1,538)
Amortization of actuarial losses	—	10,373	—	10,373 (d)	(2,727)	7,646
Total other comprehensive income	209,500	8,287	198,885	416,672	(109,549)	307,123
Balance — June 30, 2019	$ 9,393	(346,215)	184,166	$ (152,656)	39,698	$ (112,958)
Balance — January 1, 2018	$ (59,957)	(413,168)	(20,165)	$ (493,290)	129,476	$ (363,814)
Cumulative effect of change in accounting principle — equity securities	(22,795)	—	—	(22,795)	5,942	(16,853)
Other comprehensive income before reclassifications:						
Unrealized holding losses, net	(187,989)	—	—	(187,989)	49,414	(138,575)
Foreign currency translation adjustment	—	—	(1,448)	(1,448)	304	(1,144)
Unrealized losses on cash flow hedges	—	—	(21,065)	(21,065)	5,538	(15,527)
Total other comprehensive income (loss) before reclassifications	(187,989)	—	(22,513)	(210,502)	55,256	(155,246)
Amounts reclassified from accumulated other comprehensive income that (increase) decrease net income:						
Amortization of unrealized holding losses on HTM securities	1,590	—	—	1,590 (a)	(418)	1,172
Gains realized in net income	(18)	—	—	(18) (b)	4	(14)
Accretion of net gain on terminated cash flow hedges	—	—	(56)	(56) (c)	15	(41)
Net yield adjustment from cash flow hedges currently in effect	—	—	3,469	3,469 (a)	(912)	2,557
Amortization of prior service credit	—	(2,086)	—	(2,086) (d)	549	(1,537)
Amortization of actuarial losses	—	21,483	—	21,483 (d)	(5,648)	15,835
Total other comprehensive income (loss)	(186,417)	19,397	(19,100)	(186,120)	48,846	(137,274)
Balance — June 30, 2018	$ (269,169)	(393,771)	(39,265)	$ (702,205)	184,264	$ (517,941)

(a) *Included in interest income.*
(b) *Included in gain (loss) on bank investment securities.*
(c) *Included in interest expense.*
(d) *Included in other costs of operations.*

Accumulated other comprehensive income (loss), net consisted of the following:

	Investment Securities	Defined Benefit Plans	Other	Total
	(In thousands)			
Balance — December 31, 2018	$ (147,526)	(261,303)	(11,252)	$ (420,081)
Net gain during period	154,444	6,108	146,571	307,123
Balance — June 30, 2019	$ 6,918	(255,195)	135,319	$ (112,958)

10. Derivative financial instruments

As part of managing interest rate risk, the Company enters into interest rate swap agreements to modify the repricing characteristics of certain portions of the Company's portfolios of earning assets and interest-bearing liabilities. The Company designates interest rate swap agreements utilized in the management of interest rate risk as either fair value hedges or cash flow hedges. Interest rate swap agreements are generally entered into with counterparties that meet established credit standards and most contain master netting, collateral and/or settlement provisions protecting the at-risk party. Based on adherence to the Company's credit standards and the presence of the netting, collateral or settlement provisions, the Company believes that the credit risk inherent in these contracts was not material as of June 30, 2019.

The net effect of interest rate swap agreements was to decrease net interest income by $11 million and $24 million during the three-month and six-month periods ended June 30, 2019, respectively, compared with decreases of $5 million and $4 million during the three-month and six-month periods ended June 30, 2018, respectively.

Information about interest rate swap agreements entered into for interest rate risk management purposes summarized by type of financial instrument the swap agreements were intended to hedge follows:

	Notional Amount	Average Maturity	Weighted-Average Rate		Estimated Fair Value Gain (Loss) (a)
			Fixed	Variable	
	(In thousands)	(In years)			(In thousands)
June 30, 2019					
Fair value hedges:					
Fixed rate long-term borrowings (b)	$ 4,450,000	2.3	2.47%	2.95%	$ (1,224)
Cash flow hedges:					
Interest payments on variable rate commercial real estate loans (b)(c)	34,750,000	1.4	2.38%	2.42%	(4,556)
Total	$ 39,200,000	1.5			$ (5,780)
December 31, 2018					
Fair value hedges:					
Fixed rate long-term borrowings (b)	$ 4,450,000	2.8	2.47%	3.02%	$ 4,219
Cash flow hedges:					
Interest payments on variable rate commercial real estate loans (b)(d)	15,400,000	1.3	1.52%	2.35%	1,311
Total	$ 19,850,000	1.7			$ 5,530

(a) Certain clearinghouse exchanges consider payments by counterparties for variation margin on derivative instruments to be settlements of those positions. The impact of such treatment at June 30, 2019 and December 31, 2018 was a reduction of the estimated fair value gains on interest rate swap agreements designated as fair value hedges of $41.6 million and fair value losses of $54.7 million, respectively, and on interest rate swaps designated as cash flow hedges a reduction of fair value gains of $196.2 million and a reduction of fair value losses of $9.1 million, respectively.

(b) Under the terms of these agreements, the Company receives settlement amounts at a fixed rate and pays at a variable rate.

(c) Includes notional amount and terms of $21.4 billion of forward-starting interest rate swap agreements that become effective in 2019, 2020 and 2021.

(d) Includes notional amount and terms of $12.6 billion of forward-starting interest rate swap agreements that become effective in 2019 and 2020.

The Company utilizes commitments to sell residential and commercial real estate loans to hedge the exposure to changes in the fair value of real estate loans held for sale. Such commitments have generally been designated as fair value hedges. The Company also utilizes commitments to sell real estate loans to offset the exposure to changes in fair value of certain commitments to originate real estate loans for sale.

Derivative financial instruments used for trading account purposes included interest rate contracts, foreign exchange and other option contracts, foreign exchange forward and spot contracts, and financial futures. Interest rate contracts entered into for trading account purposes had notional values of $44.4 billion and $42.9 billion at June 30, 2019 and December 31, 2018, respectively. The notional amounts of foreign currency and other option and futures

10. Derivative financial instruments, continued

contracts entered into for trading account purposes aggregated $949 million and $763 million at June 30, 2019 and December 31, 2018, respectively.

Information about the fair values of derivative instruments in the Company's consolidated balance sheet and consolidated statement of income follows:

	Asset Derivatives Fair Value		Liability Derivatives Fair Value	
	June 30, 2019	December 31, 2018	June 30, 2019	December 31, 2018
	(In thousands)			
Derivatives designated and qualifying as hedging instruments				
Interest rate swap agreements (a)	$ 70	$ 5,530	$ 5,850	$ —
Commitments to sell real estate loans (a)	665	1,090	16,607	6,434
	735	6,620	22,457	6,434
Derivatives not designated and qualifying as hedging instruments				
Mortgage-related commitments to originate real estate loans for sale (a)	17,411	9,304	211	1,592
Commitments to sell real estate loans (a)	515	3,702	8,020	4,535
Trading:				
Interest rate contracts (b)	399,155	118,687	66,897	169,255
Foreign exchange and other option and futures contracts (b)	7,305	10,549	6,495	8,870
	424,386	142,242	81,623	184,252
Total derivatives	$ 425,121	$ 148,862	$ 104,080	$ 190,686

(a) Asset derivatives are reported in other assets and liability derivatives are reported in other liabilities.

(b) Asset derivatives are reported in trading account assets and liability derivatives are reported in other liabilities. The impact of variation margin payments at June 30, 2019 and December 31, 2018 was a reduction of the estimated fair value of interest rate contracts in the trading account in an asset position of $29.2 million and $170.7 million, respectively, and in a liability position of $281.2 million and $49.7 million, respectively.

	Amount of Gain (Loss) Recognized			
	Three Months Ended June 30, 2019		Three Months Ended June 30, 2018	
	Derivative	Hedged Item	Derivative	Hedged Item
	(In thousands)			
Derivatives in fair value hedging relationships				
Interest rate swap agreements:				
Fixed rate long-term borrowings (a)	$ 56,679	(56,458)	$ (13,357)	13,884
Derivatives not designated as hedging instruments				
Trading:				
Interest rate contracts (b)	$ 8,493		$ (2,686)	
Foreign exchange and other option and futures contracts (b)	2,479		2,365	
Total	$ 10,972		$ (321)	

10. Derivative financial instruments, continued

	Amount of Gain (Loss) Recognized			
	Six Months Ended June 30, 2019		Six Months Ended June 30, 2018	
	Derivative	Hedged Item	Derivative	Hedged Item
	(In thousands)			
Derivatives in fair value hedging relationships				
Interest rate swap agreements:				
Fixed rate long-term borrowings (a)	$ 90,859	(90,472)	$ (55,747)	56,254
Derivatives not designated as hedging instruments				
Trading:				
Interest rate contracts (b)	$ 11,204		$ (4,291)	
Foreign exchange and other option and futures contracts (b)	4,092		4,996	
Total	$ 15,296		$ 705	

(a) Reported as interest expense.
(b) Reported as trading account and foreign exchange gains.

	Carrying Amount of the Hedged Item		Cumulative Amount of Fair Value Hedging Adjustment Increasing (Decreasing) the Carrying Amount of the Hedged Item	
	June 30, 2019	December 31, 2018	June 30, 2019	December 31, 2018
	(In thousands)			
Location in the Consolidated Balance Sheet of the Hedged Items in Fair Value Hedges				
Long-term debt	$ 4,485,626	$ 4,394,109	$ 39,370	$ (51,102)

The Company also has commitments to sell and commitments to originate residential and commercial real estate loans that are considered derivatives. The Company designates certain of the commitments to sell real estate loans as fair value hedges of real estate loans held for sale. The Company also utilizes commitments to sell real estate loans to offset the exposure to changes in the fair value of certain commitments to originate real estate loans for sale. As a result of these activities, net unrealized pre-tax gains related to hedged loans held for sale, commitments to originate loans for sale and commitments to sell loans were approximately $25 million and $18 million at June 30, 2019 and December 31, 2018, respectively. Changes in unrealized gains and losses are included in mortgage banking revenues and, in general, are realized in subsequent periods as the related loans are sold and commitments satisfied.

The Company does not offset derivative asset and liability positions in its consolidated financial statements. The Company's exposure to credit risk by entering into derivative contracts is mitigated through master netting agreements and collateral posting or settlement requirements. Master netting agreements covering interest rate and foreign exchange contracts with the same party include a right to set-off that becomes enforceable in the event of default, early termination or under other specific conditions.

10. Derivative financial instruments, continued

The aggregate fair value of derivative financial instruments in a liability position and the net liability positions with counterparties, which are subject to enforceable master netting arrangements, was $52 million and $21 million at June 30, 2019 and December 31, 2018, respectively. The Company was required to post collateral relating to those positions of $48 million and $18 million at June 30, 2019 and December 31, 2018, respectively. Certain of the Company's derivative financial instruments contain provisions that require the Company to maintain specific credit ratings from credit rating agencies to avoid higher collateral posting requirements. If the Company's debt rating were to fall below specified ratings, the counterparties of the derivative financial instruments could demand immediate incremental collateralization on those instruments in a net liability position, however, the aggregate fair value of such derivative financial instruments in a net liability position and the amount of incremental collateralization that could be required was not significant at June 30, 2019.

The aggregate fair value of derivative financial instruments in an asset position and the net asset positions with counterparties, which are subject to enforceable master netting arrangements, was $4 million and $18 million at June 30, 2019 and December 31, 2018, respectively. Counterparties posted collateral relating to those positions of $2 million and $16 million at June 30, 2019 and December 31, 2018, respectively. Trading account interest rate swap agreements entered into with customers are subject to the Company's credit risk standards and often contain collateral provisions.

In addition to the derivative contracts noted above, the Company clears certain derivative transactions through a clearinghouse, rather than directly with counterparties. Those transactions cleared through a clearinghouse require initial margin collateral and variation margin payments depending on the contracts being in a net asset or liability position. The amount of initial margin collateral posted by the Company was $98 million and $65 million at June 30, 2019 and December 31, 2018, respectively. The fair value asset and liability amounts of derivative contracts have been reduced by variation margin payments treated as settlements as described herein. Variation margin on derivative contracts not treated as settlements continues to represent collateral posted or received by the Company.

11. Variable interest entities and asset securitizations

The Company's securitization activity has consisted of securitizing loans originated for sale into government issued or guaranteed mortgage-backed securities. The amounts of those securitizations during the six-month periods ended June 30, 2019 and 2018 are presented in the Company's consolidated statement of cash flows. The Company has not recognized any losses as a result of having securitized assets.

As described in note 5, M&T has issued junior subordinated debentures payable to various trusts that have issued Capital Securities. M&T owns the common securities of those trust entities. The Company is not considered to be the primary beneficiary of those entities and, accordingly, the trusts are not included in the Company's consolidated financial statements. At each of June 30, 2019 and December 31, 2018, the Company included the junior subordinated debentures as "long-term borrowings" in its consolidated balance sheet and recognized $23 million in other assets for its "investment" in the common securities of the trusts that will be concomitantly repaid to M&T by the respective trust from the proceeds of M&T's repayment of the junior subordinated debentures associated with preferred capital securities described in note 5.

The Company has invested as a limited partner in various partnerships that collectively had total assets of approximately $1.2 billion at June 30, 2019 and $1.1 billion at December 31, 2018. Those partnerships generally construct or acquire properties for which the investing partners are eligible to receive certain federal income tax credits in accordance with government guidelines. Such investments may also provide tax deductible losses to the partners. The partnership investments also assist the Company in achieving its community reinvestment initiatives. As a limited partner, there is no recourse to the Company by creditors of the partnerships. However, the tax credits that result from the Company's investments in such partnerships are generally subject to recapture should a partnership fail to comply with the respective government regulations. The Company's maximum exposure to loss of its investments in such partnerships was $573 million, including $267 million of unfunded commitments, at June 30, 2019 and $523 million, including $280 million of unfunded commitments, at December 31, 2018. Contingent commitments to provide additional capital contributions to these partnerships were not material at June 30, 2019. The Company has not provided financial or other support to the partnerships that was not contractually required. Management currently estimates that no material losses are probable as a result of the Company's involvement with such entities. The Company, in its position as limited partner, does not direct the activities that most significantly impact the economic performance of the partnerships and, therefore, in accordance with the accounting provisions for variable interest entities, the partnership entities are not included in the Company's consolidated financial statements. The Company's investment in qualified affordable housing projects is amortized to income taxes in the consolidated statement of income as tax credits and other tax benefits resulting from deductible losses associated with the projects are received. The Company amortized $17 million and $34 million of its investments in qualified affordable housing projects to income tax expense during the three-month and six-month periods ended June 30, 2019, respectively, and recognized $21 million and $41 million of tax credits and other tax benefits during those periods. Similarly, for the three-month and six-month periods ended June 30, 2018, the Company amortized $13 million and $26 million, respectively, of its investments in qualified affordable housing projects to income tax expense and recognized $16 million and $32 million of tax credits and other tax benefits during those respective periods.

The Company serves as investment advisor for certain registered money-market funds. The Company has no explicit arrangement to provide support to those funds but may waive portions of its allowable management fees because of market conditions.

12. Fair value measurements

GAAP permits an entity to choose to measure eligible financial instruments and other items at fair value. The Company has not made any fair value elections at June 30, 2019.

Pursuant to GAAP, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. A three-level hierarchy exists in GAAP for fair value measurements based upon the inputs to the valuation of an asset or liability.

- Level 1 — Valuation is based on quoted prices in active markets for identical assets and liabilities.
- Level 2 — Valuation is determined from quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar instruments in markets that are not active or by model-based techniques in which all significant inputs are observable in the market.
- Level 3 — Valuation is derived from model-based and other techniques in which at least one significant input is unobservable and which may be based on the Company's own estimates about the assumptions that market participants would use to value the asset or liability.

When available, the Company attempts to use quoted market prices in active markets to determine fair value and classifies such items as Level 1 or Level 2. If quoted market prices in active markets are not available, fair value is often determined using model-based techniques incorporating various assumptions including interest rates, prepayment speeds and credit losses. Assets and liabilities valued using model-based techniques are classified as either Level 2 or Level 3, depending on the lowest level classification of an input that is considered significant to the overall valuation. The following is a description of the valuation methodologies used for the Company's assets and liabilities that are measured on a recurring basis at estimated fair value.

Trading account assets and liabilities

Trading account assets and liabilities consist primarily of interest rate contracts and foreign exchange contracts with customers who require such services with offsetting positions with third parties to minimize the Company's risk with respect to such transactions. The Company generally determines the fair value of its derivative trading account assets and liabilities using externally developed pricing models based on market observable inputs and, therefore, classifies such valuations as Level 2. Mutual funds held in connection with deferred compensation and other arrangements have been classified as Level 1 valuations. Valuations of investments in municipal and other bonds can generally be obtained through reference to quoted prices in less active markets for the same or similar securities or through model-based techniques in which all significant inputs are observable and, therefore, such valuations have been classified as Level 2.

Investment securities available for sale and equity securities

The majority of the Company's available-for-sale investment securities have been valued by reference to prices for similar securities or through model-based techniques in which all significant inputs are observable and, therefore, such valuations have been classified as Level 2. Certain investments in mutual funds and equity securities are actively traded and, therefore, have been classified as Level 1 valuations.

Real estate loans held for sale

The Company utilizes commitments to sell real estate loans to hedge the exposure to changes in fair value of real estate loans held for sale. The carrying value of hedged real estate loans held for sale includes changes in estimated fair value during the hedge period. Typically, the Company attempts to hedge real estate loans held for sale from the date of close through the sale date. The fair value of hedged real estate loans held for sale is generally calculated by reference to quoted prices in secondary markets for commitments to sell real estate loans with similar characteristics and, accordingly, such loans have been classified as a Level 2 valuation.

12. Fair value measurements, continued

Commitments to originate real estate loans for sale and commitments to sell real estate loans

The Company enters into various commitments to originate real estate loans for sale and commitments to sell real estate loans. Such commitments are considered to be derivative financial instruments and, therefore, are carried at estimated fair value on the consolidated balance sheet. The estimated fair values of such commitments were generally calculated by reference to quoted prices in secondary markets for commitments to sell real estate loans to certain government-sponsored entities and other parties. The fair valuations of commitments to sell real estate loans generally result in a Level 2 classification. The estimated fair value of commitments to originate real estate loans for sale are adjusted to reflect the Company's anticipated commitment expirations. The estimated commitment expirations are considered significant unobservable inputs contributing to the Level 3 classification of commitments to originate real estate loans for sale. Significant unobservable inputs used in the determination of estimated fair value of commitments to originate real estate loans for sale are included in the accompanying table of significant unobservable inputs to Level 3 measurements.

Interest rate swap agreements used for interest rate risk management

The Company utilizes interest rate swap agreements as part of the management of interest rate risk to modify the repricing characteristics of certain portions of its portfolios of earning assets and interest-bearing liabilities. The Company generally determines the fair value of its interest rate swap agreements using externally developed pricing models based on market observable inputs and, therefore, classifies such valuations as Level 2. The Company has considered counterparty credit risk in the valuation of its interest rate swap agreement assets and has considered its own credit risk in the valuation of its interest rate swap agreement liabilities.

12. Fair value measurements, continued

The following tables present assets and liabilities at June 30, 2019 and December 31, 2018 measured at estimated fair value on a recurring basis:

	Fair Value Measurements	Level 1 (a)	Level 2 (a)	Level 3
		(In thousands)		
June 30, 2019				
Trading account assets	$ 479,403	$ 47,344	$ 432,059	$ —
Investment securities available for sale:				
U.S. Treasury and federal agencies	429,813	—	429,813	—
Obligations of states and political subdivisions	1,015	—	1,015	—
Mortgage-backed securities:				
Government issued or guaranteed	6,818,333	—	6,818,333	—
Privately issued	16	—	—	16
Other debt securities	131,163	—	131,163	—
	7,380,340	—	7,380,324	16
Equity securities	151,801	109,377	42,424	—
Real estate loans held for sale	797,474	—	797,474	—
Other assets (b)	18,661	—	1,250	17,411
Total assets	$ 8,827,679	$ 156,721	$ 8,653,531	$ 17,427
Trading account liabilities	$ 73,392	$ —	$ 73,392	$ —
Other liabilities (b)	30,688	—	30,477	211
Total liabilities	$ 104,080	$ —	$ 103,869	$ 211
December 31, 2018				
Trading account assets	$ 185,584	$ 46,018	$ 139,566	$ —
Investment securities available for sale:				
U.S. Treasury and federal agencies	1,336,931	—	1,336,931	—
Obligations of states and political subdivisions	1,659	—	1,659	—
Mortgage-backed securities:				
Government issued or guaranteed	7,216,991	—	7,216,991	—
Privately issued	22	—	—	22
Other debt securities	126,906	—	126,906	—
	8,682,509	—	8,682,487	22
Equity securities	93,917	71,989	21,928	—
Real estate loans held for sale	551,697	—	551,697	—
Other assets (b)	19,626	—	10,322	9,304
Total assets	$ 9,533,333	$ 118,007	$ 9,406,000	$ 9,326
Trading account liabilities	$ 178,125	$ —	$ 178,125	$ —
Other liabilities (b)	12,561	—	10,969	1,592
Total liabilities	$ 190,686	$ —	$ 189,094	$ 1,592

(a) There were no significant transfers between Level 1 and Level 2 of the fair value hierarchy during the six months ended June 30, 2019 and the year ended December 31, 2018.

(b) Comprised predominantly of interest rate swap agreements used for interest rate risk management (Level 2), commitments to sell real estate loans (Level 2) and commitments to originate real estate loans to be held for sale (Level 3).

12. Fair value measurements, continued

The changes in Level 3 assets and liabilities measured at estimated fair value on a recurring basis during three months ended June 30, 2019 and 2018 were as follows:

	Investment Securities Available for Sale	
	Privately Issued Mortgage-Backed Securities	Other Assets and Other Liabilities
2019	(In thousands)	
Balance — March 31 , 2019	$ 16	7,433
Total gains realized/unrealized:		
Included in earnings	—	36,463 (b)
Settlements	—	—
Transfers out of Level 3 (a)	—	(26,696) (c)
Balance — June 30, 2019	$ 16	17,200
Changes in unrealized gains included in earnings related to assets still held at June 30, 2019	$ —	17,464 (b)
2018		
Balance — March 31 , 2018	$ 27	8,760
Total gains realized/unrealized:		
Included in earnings	—	20,277 (b)
Settlements	(3)	—
Transfers out of Level 3 (a)	—	(18,286) (c)
Balance — June 30, 2018	$ 24	10,751
Changes in unrealized gains included in earnings related to assets still held at June 30, 2018	$ —	10,686 (b)

12. Fair value measurements, continued

The changes in Level 3 assets and liabilities measured at estimated fair value on a recurring basis during the six months ended June 30, 2019 and 2018 were as follows:

	Investment Securities Available for Sale — Privately Issued Mortgage-Backed Securities	Other Assets and Other Liabilities
	(In thousands)	
2019		
Balance — January 1, 2019	$ 22	7,712
Total gains realized/unrealized:		
Included in earnings	—	53,009 (b)
Settlements	(6)	—
Transfers out of Level 3 (a)	—	(43,521) (c)
Balance — June 30, 2019	$ 16	17,200
Changes in unrealized gains included in earnings related to assets still held at June 30, 2019	$ —	17,372 (b)
2018		
Balance — January 1, 2018	$ 28	8,303
Total gains realized/unrealized:		
Included in earnings	—	28,407 (b)
Settlements	(4)	—
Transfers out of Level 3 (a)	—	(25,959) (c)
Balance — June 30, 2018	$ 24	10,751
Changes in unrealized gains included in earnings related to assets still held at June 30, 2018	$ —	10,686 (b)

(a) *The Company's policy for transfers between fair value levels is to recognize the transfer as of the actual date of the event or change in circumstances that caused the transfer.*

(b) *Reported as mortgage banking revenues in the consolidated statement of income and includes the fair value of commitment issuances and expirations.*

(c) *Transfers out of Level 3 consist of interest rate locks transferred to closed loans.*

12. Fair value measurements, continued

The Company is required, on a nonrecurring basis, to adjust the carrying value of certain assets or provide valuation allowances related to certain assets using fair value measurements. The more significant of those assets follow.

Loans

Loans are generally not recorded at fair value on a recurring basis. Periodically, the Company records nonrecurring adjustments to the carrying value of loans based on fair value measurements for partial charge-offs of the uncollectible portions of those loans. Nonrecurring adjustments also include certain impairment amounts for collateral-dependent loans when establishing the allowance for credit losses. Such amounts are generally based on the fair value of the underlying collateral supporting the loan and, as a result, the carrying value of the loan less the calculated valuation amount does not necessarily represent the fair value of the loan. Real estate collateral is typically valued using appraisals or other indications of value based on recent comparable sales of similar properties or assumptions generally observable in the marketplace and the related nonrecurring fair value measurement adjustments have been classified as Level 2, unless significant adjustments have been made to the valuation that are not readily observable by market participants. Non-real estate collateral supporting commercial loans generally consists of business assets such as receivables, inventory and equipment. Fair value estimations are typically determined by discounting recorded values of those assets to reflect estimated net realizable value considering specific borrower facts and circumstances and the experience of credit personnel in their dealings with similar borrower collateral liquidations. Such discounts were in the range of 15% to 85% at June 30, 2019. As these discounts are not readily observable and are considered significant, the valuations have been classified as Level 3. Automobile collateral is typically valued by reference to independent pricing sources based on recent sales transactions of similar vehicles, and the related nonrecurring fair value measurement adjustments have been classified as Level 2. Collateral values for other consumer installment loans are generally estimated based on historical recovery rates for similar types of loans. As these recovery rates are not readily observable by market participants, such valuation adjustments have been classified as Level 3. Loans subject to nonrecurring fair value measurement were $212 million at June 30, 2019 ($155 million and $57 million of which were classified as Level 2 and Level 3, respectively), $268 million at December 31, 2018 ($120 million and $148 million of which were classified as Level 2 and Level 3, respectively) and $206 million at June 30, 2018 ($119 million and $87 million of which were classified as Level 2 and Level 3, respectively). Changes in fair value recognized for partial charge-offs of loans and loan impairment reserves on loans held by the Company on June 30, 2019 were decreases of $20 million and $36 million for the three-month and six-month periods ended June 30, 2019, respectively. Changes in fair value recognized for partial charge-offs of loans and loan impairment reserves on loans held by the Company on June 30, 2018 were decreases of $21 million and $45 million for the three-month and six-month periods ended June 30, 2018, respectively.

Assets taken in foreclosure of defaulted loans

Assets taken in foreclosure of defaulted loans are primarily comprised of commercial and residential real property and are generally measured at the lower of cost or fair value less costs to sell. The fair value of the real property is generally determined using appraisals or other indications of value based on recent comparable sales of similar properties or assumptions generally observable in the marketplace, and the related nonrecurring fair value measurement adjustments have generally been classified as Level 2. Assets taken in foreclosure of defaulted loans subject to nonrecurring fair value measurement were $17 million and $30 million at June 30, 2019 and 2018, respectively. Changes in fair value recognized for those foreclosed assets held by the Company were not material during the three-month and six-month periods ended June 30, 2019 and 2018.

12. Fair value measurements, continued

Capitalized servicing rights

Capitalized servicing rights are initially measured at fair value in the Company's consolidated balance sheet. The Company utilizes the amortization method to subsequently measure its capitalized servicing assets. In accordance with GAAP, the Company must record impairment charges, on a nonrecurring basis, when the carrying value of certain strata exceed their estimated fair value. To estimate the fair value of servicing rights, the Company considers market prices for similar assets, if available, and the present value of expected future cash flows associated with the servicing rights calculated using assumptions that market participants would use in estimating future servicing income and expense. Such assumptions include estimates of the cost of servicing loans, loan default rates, an appropriate discount rate, and prepayment speeds. For purposes of evaluating and measuring impairment of capitalized servicing rights, the Company stratifies such assets based on the predominant risk characteristics of the underlying financial instruments that are expected to have the most impact on projected prepayments, cost of servicing and other factors affecting future cash flows associated with the servicing rights. Such factors may include financial asset or loan type, note rate and term. The amount of impairment recognized is the amount by which the carrying value of the capitalized servicing rights for a stratum exceed estimated fair value. Impairment is recognized through a valuation allowance. The determination of fair value of capitalized servicing rights is considered a Level 3 valuation. At June 30, 2019, $199 million of capitalized servicing rights required a valuation allowance of approximately $9 million. No stratum of capitalized servicing rights required a valuation allowance at December 31, 2018 or June 30, 2018.

Significant unobservable inputs to Level 3 measurements

The following tables present quantitative information about significant unobservable inputs used in the fair value measurements for certain Level 3 assets and liabilities at June 30, 2019 and December 31, 2018:

	Fair Value	Valuation Technique	Unobservable Inputs/Assumptions	Range (Weighted-Average)
	(In thousands)			
June 30, 2019				
Recurring fair value measurements				
Privately issued mortgage-backed securities	$ 16	Two independent pricing quotes	—	—
Net other assets (liabilities) (a)	17,200	Discounted cash flow	Commitment expirations	0%-98% (16%)
December 31, 2018				
Recurring fair value measurements				
Privately issued mortgage-backed securities	$ 22	Two independent pricing quotes	—	—
Net other assets (liabilities) (a)	7,712	Discounted cash flow	Commitment expirations	0%-95% (13%)

(a) Other Level 3 assets (liabilities) consist of commitments to originate real estate loans.

Sensitivity of fair value measurements to changes in unobservable inputs

An increase (decrease) in the estimate of expirations for commitments to originate real estate loans would generally result in a lower (higher) fair value measurement. Estimated commitment expirations are derived considering loan type, changes in interest rates and remaining length of time until closing.

12. Fair value measurements, continued

Disclosures of fair value of financial instruments

The carrying amounts and estimated fair value for financial instrument assets (liabilities) are presented in the following table:

	June 30, 2019				
	Carrying Amount	Estimated Fair Value	Level 1	Level 2	Level 3
	(In thousands)				
Financial assets:					
Cash and cash equivalents	$ 1,271,611	1,271,611	1,214,826	56,785	—
Interest-bearing deposits at banks	8,791,753	8,791,753	—	8,791,753	—
Trading account assets	479,403	479,403	47,344	432,059	—
Investment securities	11,580,249	11,606,174	109,377	11,400,933	95,864
Loans and leases:					
Commercial loans and leases	23,431,408	23,095,155	—	—	23,095,155
Commercial real estate loans	35,194,375	34,932,104	—	503,599	34,428,505
Residential real estate loans	16,693,737	16,734,846	—	3,965,011	12,769,835
Consumer loans	14,558,538	14,537,432	—	—	14,537,432
Allowance for credit losses	(1,029,867)	—	—	—	—
Loans and leases, net	88,848,191	89,299,537	—	4,468,610	84,830,927
Accrued interest receivable	362,012	362,012	—	362,012	—
Financial liabilities:					
Noninterest-bearing deposits	$ (30,747,946)	(30,747,946)	—	(30,747,946)	—
Savings and interest-checking deposits	(53,221,672)	(53,221,672)	—	(53,221,672)	—
Time deposits	(6,346,551)	(6,447,027)	—	(6,447,027)	—
Deposits at Cayman Islands office	(1,364,855)	(1,364,855)	—	(1,364,855)	—
Short-term borrowings	(4,611,390)	(4,611,390)	—	(4,611,390)	—
Long-term borrowings	(7,655,507)	(7,703,957)	—	(7,703,957)	—
Accrued interest payable	(108,971)	(108,971)	—	(108,971)	—
Trading account liabilities	(73,392)	(73,392)	—	(73,392)	—
Other financial instruments:					
Commitments to originate real estate loans for sale	$ 17,200	17,200	—	—	17,200
Commitments to sell real estate loans	(23,447)	(23,447)	—	(23,447)	—
Other credit-related commitments	(127,699)	(127,699)	—	—	(127,699)
Interest rate swap agreements used for interest rate risk management	(5,780)	(5,780)	—	(5,780)	—

12. Fair value measurements, continued

	December 31, 2018				
	Carrying Amount	Estimated Fair Value	Level 1	Level 2	Level 3
	(In thousands)				
Financial assets:					
Cash and cash equivalents	$ 1,605,439	1,605,439	1,528,302	77,137	—
Interest-bearing deposits at banks	8,105,197	8,105,197	—	8,105,197	—
Trading account assets	185,584	185,584	46,018	139,566	—
Investment securities	12,692,813	12,631,656	71,989	12,456,467	103,200
Loans and leases:					
Commercial loans and leases	22,977,976	22,587,387	—	—	22,587,387
Commercial real estate loans	34,363,556	33,832,558	—	346,775	33,485,783
Residential real estate loans	17,154,446	16,974,545	—	3,920,447	13,054,098
Consumer loans	13,970,499	13,819,545	—	—	13,819,545
Allowance for credit losses	(1,019,444)	—	—	—	—
Loans and leases, net	87,447,033	87,214,035	—	4,267,222	82,946,813
Accrued interest receivable	353,965	353,965	—	353,965	—
Financial liabilities:					
Noninterest-bearing deposits	$ (32,256,668)	(32,256,668)	—	(32,256,668)	—
Savings and interest-checking deposits	(50,963,744)	(50,963,744)	—	(50,963,744)	—
Time deposits	(6,124,254)	(6,201,957)	—	(6,201,957)	—
Deposits at Cayman Islands office	(811,906)	(811,906)	—	(811,906)	—
Short-term borrowings	(4,398,378)	(4,398,378)	—	(4,398,378)	—
Long-term borrowings	(8,444,914)	(8,385,289)	—	(8,385,289)	—
Accrued interest payable	(95,274)	(95,274)	—	(95,274)	—
Trading account liabilities	(178,125)	(178,125)	—	(178,125)	—
Other financial instruments:					
Commitments to originate real estate loans for sale	$ 7,712	7,712	—	—	7,712
Commitments to sell real estate loans	(6,177)	(6,177)	—	(6,177)	—
Other credit-related commitments	(131,688)	(131,688)	—	—	(131,688)
Interest rate swap agreements used for interest rate risk management	5,530	5,530	—	5,530	—

With the exception of marketable securities, certain off-balance sheet financial instruments and mortgage loans originated for sale, the Company’s financial instruments are not readily marketable and market prices do not exist. The Company, in attempting to comply with the provisions of GAAP that require disclosures of fair value of financial instruments, has not attempted to market its financial instruments to potential buyers, if any exist. Since negotiated prices in illiquid markets depend greatly upon the then present motivations of the buyer and seller, it is reasonable to assume that actual sales prices could vary widely from any estimate of fair value made without the benefit of negotiations. Additionally, changes in market interest rates can dramatically impact the value of financial instruments in a short period of time.

The Company does not believe that the estimated information presented herein is representative of the earnings power or value of the Company. The preceding analysis, which is inherently limited in depicting fair value, also does not consider any value associated with existing customer relationships nor the ability of the Company to create value through loan origination, deposit gathering or fee generating activities. Many of the estimates presented herein are based upon the use of highly subjective information and assumptions and, accordingly, the results may not be precise. Management believes that fair value estimates may not be comparable between financial institutions due to the wide range of permitted valuation techniques and numerous estimates which must be made. Furthermore, because the disclosed fair value amounts were estimated as of the balance sheet date, the amounts actually realized or paid upon maturity or settlement of the various financial instruments could be significantly different.

13. Commitments and contingencies

In the normal course of business, various commitments and contingent liabilities are outstanding. Certain of these commitments are not included in the Company's consolidated balance sheet.

	June 30, 2019	December 31, 2018
	(In thousands)	
Commitments to extend credit		
Home equity lines of credit	$ 5,489,356	5,484,197
Commercial real estate loans to be sold	247,494	229,401
Other commercial real estate	7,771,353	7,556,722
Residential real estate loans to be sold	473,275	245,211
Other residential real estate	414,375	219,351
Commercial and other	15,188,645	14,363,803
Standby letters of credit	2,353,515	2,326,991
Commercial letters of credit	43,824	55,808
Financial guarantees and indemnification contracts	3,741,060	3,529,136
Commitments to sell real estate loans	1,377,712	940,692

Commitments to extend credit are agreements to lend to customers, generally having fixed expiration dates or other termination clauses that may require payment of a fee. In addition to the amounts in the preceding table, the Company had discretionary funding commitments to commercial customers of $8.6 billion at each of June 30, 2019 and December 31, 2018, respectively, that the Company had the unconditional right to cancel prior to funding. Standby and commercial letters of credit are conditional commitments issued to guarantee the performance of a customer to a third party. Standby letters of credit generally are contingent upon the failure of the customer to perform according to the terms of the underlying contract with the third party, whereas commercial letters of credit are issued to facilitate commerce and typically result in the commitment being funded when the underlying transaction is consummated between the customer and a third party. The credit risk associated with commitments to extend credit and standby and commercial letters of credit is essentially the same as that involved with extending loans to customers and is subject to normal credit policies. Collateral may be obtained based on management's assessment of the customer's creditworthiness.

Financial guarantees and indemnification contracts are oftentimes similar to standby letters of credit and include mandatory purchase agreements issued to ensure that customer obligations are fulfilled, recourse obligations associated with sold loans, and other guarantees of customer performance or compliance with designated rules and regulations. Included in financial guarantees and indemnification contracts are loan principal amounts sold with recourse in conjunction with the Company's involvement in the Fannie Mae Delegated Underwriting and Servicing program. The Company's maximum credit risk for recourse associated with loans sold under this program totaled approximately $3.6 billion and $3.4 billion at June 30, 2019 and December 31, 2018, respectively.

Since many loan commitments, standby letters of credit, and guarantees and indemnification contracts expire without being funded in whole or in part, the contract amounts are not necessarily indicative of future cash flows.

The Company utilizes commitments to sell real estate loans to hedge exposure to changes in the fair value of real estate loans held for sale. Such commitments are considered derivatives and along with commitments to originate real estate loans to be held for sale are generally recorded in the consolidated balance sheet at estimated fair market value.

13. Commitments and contingencies, continued

The Company is contractually obligated to repurchase previously sold residential real estate loans that do not ultimately meet investor sale criteria related to underwriting procedures or loan documentation. When required to do so, the Company may reimburse loan purchasers for losses incurred or may repurchase certain loans. The Company reduces residential mortgage banking revenues by an estimate for losses related to its obligations to loan purchasers. The amount of those charges is based on the volume of loans sold, the level of reimbursement requests received from loan purchasers and estimates of losses that may be associated with previously sold loans. At June 30, 2019, the Company believes that its obligation to loan purchasers was not material to the Company's consolidated financial position.

As previously disclosed, Wilmington Trust Corporation, a wholly-owned subsidiary of M&T, was the subject of a class action lawsuit alleging that Wilmington Trust Corporation's financial reporting and securities filings prior to its acquisition by M&T in 2011 were in violation of securities laws. In April 2018, the parties reached an agreement in principle and a formal settlement agreement was executed and filed with the court later in the second quarter of 2018. The proposed settlement was preliminarily approved by the court in July 2018. In the first quarter of 2018, the Company increased its reserve for litigation matters in anticipation of the settlement. The settlement amount of $200 million was paid, pursuant to the settlement agreement, during the third quarter of 2018. The settlement agreement was approved by the court in the fourth quarter of 2018.

Wilmington Trust, N.A., a wholly owned bank subsidiary of M&T, provides retirement services, including serving in certain trustee roles relating to Employee Stock Ownership Plans ("ESOPs"). Beginning in 2010, the U.S. Department of Labor ("DOL") announced that it would increase its focus on ESOP transactions, particularly with regard to valuation issues relating to ESOP transactions. Beginning in late 2013, Wilmington Trust, N.A. began receiving requests for information and subpoenas relating to certain ESOP transactions for which it acted as trustee. In June 2016, Wilmington Trust, N.A. received a DOL subpoena seeking information on its global ESOP trustee business. In addition to these investigations, the DOL has commenced three lawsuits against Wilmington Trust, N.A. relating to its role as trustee of three ESOP transactions. In July 2019, Wilmington Trust, N.A. reached a settlement in principle with the DOL to resolve certain pending DOL ESOP matters. Although a formal settlement agreement has yet to be prepared and executed, the Company does not expect that the agreed-upon settlement will have a material incremental impact on the Company's consolidated financial position or results of operations. Wilmington Trust, N.A. has also been named as a defendant in four private party lawsuits relating to its role as trustee for four ESOP transactions. Under applicable transaction documents, Wilmington Trust, N.A. may be entitled to indemnification by the ESOP Plan Sponsors. These matters could result in damages, settlements, penalties, restitution, reputational damage or additional costs and expenses.

M&T and its subsidiaries are subject in the normal course of business to various other pending and threatened legal proceedings and matters in which claims for monetary damages are asserted. On an on-going basis management, after consultation with legal counsel, assesses the Company's liabilities and contingencies in connection with such proceedings. For those matters where it is probable that the Company will incur losses and the amounts of the losses can be reasonably estimated, the Company records an expense and corresponding liability in its consolidated financial statements. The Company increased its recorded liability for legal-related matters by $50 million and $135 million during the three months ended March 31, 2019 and 2018, respectively. To the extent pending or threatened litigation could result in exposure in excess of the recorded liability, the amount of such excess is not currently estimable. Although not considered probable, the range of reasonably possible losses for such matters in the aggregate, beyond the existing recorded liability, was estimated to be between $0 and $50 million as of June 30, 2019. Although the Company does not believe that the outcome of pending legal matters will be material to the Company's consolidated financial position, it cannot rule out the possibility that such outcomes will be material to the consolidated results of operations for a particular reporting period in the future.

14. Segment information

Reportable segments have been determined based upon the Company's internal profitability reporting system, which is organized by strategic business unit. Certain strategic business units have been combined for segment information reporting purposes where the nature of the products and services, the type of customer and the distribution of those products and services are similar. The reportable segments are Business Banking, Commercial Banking, Commercial Real Estate, Discretionary Portfolio, Residential Mortgage Banking and Retail Banking.

The financial information of the Company's segments was compiled utilizing the accounting policies described in note 22 of Notes to Financial Statements in the 2018 Annual Report. The management accounting policies and processes utilized in compiling segment financial information are highly subjective and, unlike financial accounting, are not based on authoritative guidance similar to GAAP. As a result, the financial information of the reported segments is not necessarily comparable with similar information reported by other financial institutions. Furthermore, changes in management structure or allocation methodologies and procedures may result in changes in reported segment financial data.

Information about the Company's segments is presented in the following table:

	Three Months Ended June 30					
	2019			2018		
	Total Revenues(a)	Inter-segment Revenues	Net Income (Loss)	Total Revenues(a)	Inter-segment Revenues	Net Income (Loss)
	(In thousands)					
Business Banking	$ 140,767	1,004	42,250	$ 136,029	912	43,007
Commercial Banking	278,110	887	123,507	269,499	928	126,391
Commercial Real Estate	225,442	406	121,629	205,541	385	112,691
Discretionary Portfolio	60,976	(9,291)	38,040	58,976	(10,554)	29,113
Residential Mortgage Banking	96,449	17,150	7,642	82,167	16,047	15,402
Retail Banking	436,593	2,787	140,494	420,540	2,707	143,089
All Other	315,239	(12,943)	(302)	293,449	(10,425)	23,467
Total	$ 1,553,576	—	473,260	$ 1,466,201	—	493,160

	Six Months Ended June 30					
	2019			2018		
	Total Revenues(a)	Inter-segment Revenues	Net Income (Loss)	Total Revenues(a)	Inter-segment Revenues	Net Income (Loss)
	(In thousands)					
Business Banking	$ 280,089	1,860	85,521	$ 263,913	1,830	80,725
Commercial Banking	545,600	1,727	255,725	535,895	1,778	251,856
Commercial Real Estate	444,615	760	239,127	408,148	725	220,994
Discretionary Portfolio	124,893	(18,590)	77,212	109,014	(21,386)	48,852
Residential Mortgage Banking	180,210	31,664	20,583	164,625	31,468	30,348
Retail Banking	867,484	5,298	285,560	814,016	5,572	266,469
All Other	661,510	(22,719)	(7,726)	604,803	(19,987)	(53,474)
Total	$ 3,104,401	—	956,002	$ 2,900,414	—	845,770

14. Segment information, continued

	Average Total Assets		
	Six Months Ended June 30		Year Ended December 31
	2019	2018	2018
	(In millions)		
Business Banking	$ 5,724	5,656	5,631
Commercial Banking	27,981	26,542	26,626
Commercial Real Estate	23,720	22,848	22,885
Discretionary Portfolio	29,888	33,277	32,123
Residential Mortgage Banking	2,173	2,186	2,161
Retail Banking	14,580	13,403	13,656
All Other	13,601	13,109	13,877
Total	$ 117,667	117,021	116,959

(a) Total revenues are comprised of net interest income and other income. Net interest income is the difference between taxable-equivalent interest earned on assets and interest paid on liabilities owed by a segment and a funding charge (credit) based on the Company's internal funds transfer and allocation methodology. Segments are charged a cost to fund any assets (e.g. loans) and are paid a funding credit for any funds provided (e.g. deposits). The taxable-equivalent adjustment aggregated $5,925,000 and $5,397,000 for the three-month periods ended June 30, 2019 and 2018, respectively, and $11,892,000 and $10,206,000 for the six-month periods ended June 30, 2019 and 2018, respectively, and is eliminated in "All Other" total revenues. Intersegment revenues are included in total revenues of the reportable segments. The elimination of intersegment revenues is included in the determination of "All Other" total revenues.

15. Relationship with Bayview Lending Group LLC and Bayview Financial Holdings, L.P.

M&T holds a 20% minority interest in Bayview Lending Group LLC ("BLG"), a privately-held commercial mortgage company. M&T recognizes income or loss from BLG using the equity method of accounting. That investment had no remaining carrying value at June 30, 2019 as a result of cumulative losses recognized and cash distributions received in prior years. Income recognized by M&T is included in other revenues from operations and totaled $37 million and $23 million for the three-month periods ended March 31, 2019 and 2018, respectively. There was no similar income recognized during the three-month periods ended June 30, 2019 and 2018.

Bayview Financial Holdings, L.P. (together with its affiliates, "Bayview Financial"), a privately-held specialty finance company, is BLG's majority investor. In addition to their common investment in BLG, the Company and Bayview Financial conduct other business activities with each other. The Company has obtained loan servicing rights for mortgage loans from BLG and Bayview Financial having outstanding principal balances of $2.4 billion and $2.5 billion at each of June 30, 2019 and December 31, 2018, respectively. Revenues from those servicing rights were $3 million and $4 million for the three-month periods ended June 30, 2019 and 2018, respectively, and $6 million and $7 million for the six-month periods ended June 30, 2019 and 2018, respectively. The Company sub-services residential mortgage loans for Bayview Financial having outstanding principal balances of $68.7 billion and $56.8 billion at June 30, 2019 and December 31, 2018, respectively. Revenues earned for sub-servicing loans for Bayview Financial were $29 million and $28 million for the three-month periods ended June 30, 2019 and 2018, respectively, and $57 million and $58 million for the six-month periods ended June 30, 2019 and 2018, respectively. In addition, the Company held $105 million and $113 million of mortgage-backed securities in its held-to-maturity portfolio at June 30, 2019 and December 31, 2018, respectively, that were securitized by Bayview Financial. At June 30, 2019, the Company held $112 million of Bayview Financial’s $826 million syndicated loan facility. The Company and Bayview Financial entered into arrangements whereby the Company added approximately $16.6 billion to its residential mortgage loan sub-servicing portfolio during the second quarter of 2019.

16. Recent accounting developments

The following table provides a description of accounting standards that were adopted by the Company in 2019 as well as standards that are not effective that could have an impact to M&T's consolidated financial statements upon adoption.

Standard	Description	Required date of adoption	Effect on consolidated financial statements
Standards Adopted in 2019			
Leases	The new guidance requires lessees to record a right-of-use asset and a lease liability for all leases with a term greater than 12 months. While the guidance requires all leases to be recognized in the balance sheet, there continues to be a differentiation between finance leases and operating leases for purposes of income statement recognition and cash flow statement presentation. For finance leases, interest on the lease liability and amortization of the right-of-use asset is recognized separately in the statement of income. Repayments of principal on those lease liabilities are classified within financing activities and payments of interest on the lease liability are classified within operating activities in the statement of cash flows. For operating leases, a single lease cost is recognized in the statement of income and allocated over the lease term, generally on a straight-line basis. All cash payments are presented within operating activities in the statement of cash flows. The accounting applied by lessors is largely unchanged, however, the guidance eliminates the accounting model for leveraged leases for leases that commence after the effective date of the guidance.	January 1, 2019 Early adoption permitted	The Company adopted the guidance on January 1, 2019 and applied the guidance retrospectively at the beginning of the period of adoption. The Company occupies certain banking offices and uses certain equipment under noncancelable operating lease agreements which prior to the adoption of the guidance were not reflected in its consolidated balance sheet. Upon adoption, the Company recognized a right-of-use asset of $394 million and increased liabilities by $399 million as a result of recognizing lease liabilities in its consolidated balance sheet. The new guidance did not have a material impact on the Company's consolidated statement of income.
Premium Amortization on Purchased Callable Debt Securities	The amended guidance requires the premium on callable debt securities to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity.	January 1, 2019 Early adoption permitted	The Company adopted the amended guidance effective January 1, 2019 and applied the modified retrospective approach for reporting purposes. The adoption did not have a material effect on the Company's consolidated financial position nor on its results of operations.

16. Recent accounting developments, continued

Standard	Description	Required date of adoption	Effect on consolidated financial statements
Standards Not Yet Adopted as of June 30, 2019			
Measurement of Credit Losses on Financial Instruments	The amended guidance replaces the current incurred loss model for determining the allowance for credit losses. The guidance requires financial assets measured at amortized cost to be presented at the net amount expected to be collected. The allowance for credit losses will represent a valuation account that is deducted from the amortized cost basis of the financial assets to present their net carrying value at the amount expected to be collected. The income statement will reflect the measurement of credit losses for newly recognized financial assets as well as expected increases or decreases of expected credit losses that have taken place during the period. When determining the allowance, expected credit losses over the contractual term of the financial asset(s) (taking into account prepayments) will be estimated considering relevant information about past events, current conditions, and reasonable and supportable forecasts that affect the collectibility of the reported amount. The amended guidance also requires recording an allowance for credit losses for purchased financial assets with a more-than-insignificant amount of credit deterioration since origination. The initial allowance for these assets will be added to the purchase price at acquisition rather than being reported as an expense. Subsequent changes in the allowance will be recorded through the income statement as an expense adjustment. In addition, the amended guidance requires credit losses relating to available-for-sale debt securities to be recorded through an allowance for credit losses. The calculation of credit losses for available-for-sale securities will be similar to how it is determined under existing guidance.	January 1, 2020 Early adoption permitted as of January 1, 2019	The Company is continuing the development of its approach for determining expected credit losses under the new guidance. The Company has a cross-functional implementation team working on model development, model validation, and development of a qualitative framework, data sourcing, and technology enhancements. The Company expects that the new guidance will result in an increase in its allowance for credit losses as a result of considering credit losses over the expected life of its loan portfolios, in particular its consumer and residential real estate loan portfolios. The expected changes to the allowance for credit losses and the impact to the Company's financial statements are still to be determined. The amount of the change will be affected by economic conditions, reasonable forecasts of such conditions and the composition of the Company's portfolio as of the date of adoption.
Simplifying the Test for Goodwill Impairment	The amended guidance eliminates step 2 from the goodwill impairment test.	January 1, 2020 Early adoption permitted	The amendments should be applied using a prospective transition method. The Company does not expect the guidance will have a material impact on its consolidated financial statements, unless at some point in the future one of its reporting units were to fail step 1 of the goodwill impairment test.

16. Recent accounting developments, continued

Standard	Description	Required date of adoption	Effect on consolidated financial statements
Standards Not Yet Adopted as of June 30, 2019			
Changes to the Disclosure Requirements for Fair Value Measurements	The amended guidance modifies the disclosure requirements on fair value measurements in Topic 820, Fair Value Measurements. The amendments are a result of the disclosure framework project that focuses on improvements to the effectiveness of disclosures in the notes to financial statements. The amendments remove, modify, and add certain disclosure requirements. The disclosure requirements being removed relating to public companies are (1) the amount and reason for transfers between Level 1 and Level 2 of the fair value hierarchy, (2) the policy for timing of transfers between levels, and (3) the valuation process for Level 3 fair value measurements. The disclosure requirements being modified relating to public companies are (1) for investments in certain entities that calculate net asset value, an entity is required to disclose the timing of liquidation of an investee's asset and the date when restrictions from redemption might lapse only if the investee has communicated the timing to the entity or announced the timing publicly, and (2) the measurement uncertainty disclosure is to communicate information about the uncertainty in measurement as a result of the use of unobservable inputs. The disclosure requirements being added relating to public companies are (1) to disclose the changes in unrealized gains and losses for the period for recurring Level 3 fair value measurements, and (2) to disclose the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements.	January 1, 2020 Early adoption permitted	The amendments relating to changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurements uncertainty should be applied prospectively. All other amendments should be applied retrospectively. The Company does not expect the guidance to have a material impact on its consolidated financial statements.
Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract	The amended guidance requires a hosting arrangement that is a service contract to follow the guidance in Subtopic 350-40 to determine which implementation costs to capitalize and which costs to expense.	January 1, 2020 Early adoption permitted	The amendments should be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. The Company is evaluating the impact that the guidance will have on its consolidated financial statements.

16. Recent accounting developments, continued

Standard	Description	Required date of adoption	Effect on consolidated financial statements
Standards Not Yet Adopted as of June 30, 2019			
Improvements to Related Party Guidance for VIEs	The amended guidance requires that indirect interests held through related parties in common control arrangements should be considered on a proportional basis for determining whether fees paid to decision makers and service providers are variable interests.	January 1, 2020 Early adoption permitted	The amendments should be applied retrospectively with a cumulative-effect adjustment to retained earnings at the beginning of the earliest period presented. The Company does not expect the guidance to have a material impact on its consolidated financial statements.
Changes to the Disclosure Requirements for Defined Benefit Plans	The amended guidance modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. The amendments are a result of the disclosure framework project that focuses on improvements to the effectiveness of disclosures in the notes to financial statements. The amendments remove and add certain disclosure requirements. The disclosure requirements being removed relating to public companies are (1) the amounts in accumulated other comprehensive income expected to be recognized as components of net periodic benefit cost over the next fiscal year, (2) the amount and timing of plan assets expected to be returned to the employer, (3) the 2001 disclosure requirement relating to Japanese Welfare Pension Insurance Law, (4) related party disclosures about the amount of future annual benefits covered by insurance, and (5) the effects of a one-percentage-point change in assumed health care cost trends on the benefit cost and obligation. The disclosure requirements being added relating to public companies are (1) the weighted-average interest crediting rates for cash balance plans , and (2) an explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period.	January 1, 2021 Early adoption permitted	The amendments should be applied retrospectively. The Company does not expect the guidance to have a material impact on its consolidated financial statements.

17. Subsequent Events

On July 30, 2019, M&T issued 40,000 shares of Series G Perpetual Fixed-Rate Reset Non-cumulative Preferred Stock, par value $1.00 per share and liquidation preference of $10,000 per share. Through July 31, 2024 holders of the Series G preferred stock are entitled to receive, only when, as and if declared by M&T's Board of Directors, non-cumulative cash dividends at an annual rate of 5.0%, payable semiannually in arrears. Subsequent to July 31, 2024 holders will be entitled to receive, only when, as and if declared by M&T's Board of Directors, non-cumulative cash dividends at an annual rate of the five-year U.S. Treasury Rate plus 3.174%, payable semiannually in arrears. The Series G preferred stock may be redeemed at M&T's option, in whole or in part, on any dividend payment date on or after August 1, 2024 or, in whole but not in part, at any time within 90 days following a regulatory capital treatment event whereby the full liquidation value of the shares no longer qualifies as "additional Tier 1 capital."

In addition, M&T expects to redeem the 230,000 shares issued and outstanding of the Series A and 151,500 shares issued and outstanding of the Series C Fixed Rate Cumulative Perpetual Preferred Stock, $1,000 liquidation preference per share on August 30, 2019, having received the approval of the Federal Reserve to redeem such shares after issuing the Series G preferred stock.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Overview

Net income for M&T Bank Corporation ("M&T") in the second quarter of 2019 totaled $473 million or $3.34 of diluted earnings per common share, compared with $493 million or $3.26 of diluted earnings per common share in the year-earlier quarter. Net income and diluted earnings per common share during the first quarter of 2019 were $483 million and $3.35, respectively. Basic earnings per common share were also $3.34 in the recent quarter, compared with $3.26 in the second quarter of 2018 and $3.35 in the initial 2019 quarter. Net income totaled $956 million or $6.69 of diluted and basic earnings per common share for the first half of 2019, compared with $846 million or $5.48 of diluted earnings per common share and $5.49 of basic earnings per common share in the corresponding period of 2018.

The annualized rate of return on average total assets for M&T and its consolidated subsidiaries ("the Company") in the second quarter of 2019 was 1.60%, compared with 1.70% in the year-earlier quarter and 1.68% in the first quarter of 2019. The annualized rate of return on average common shareholders' equity was 12.68% in the recent quarter, compared with 13.32% in the second quarter of 2018 and 13.14% in 2019's initial quarter. During the six-month period ended June 30, 2019, the annualized rates of return on average assets and average common shareholders' equity were 1.64% and 12.91%, respectively, compared with 1.46% and 11.21%, respectively, in the first half of 2018.

In July 2019, M&T agreed to sell its non-controlling interest in an asset manager obtained in the 2011 acquisition of Wilmington Trust Corporation that is accounted for using the equity method of accounting and, as a result, as of June 30, 2019 recorded a $48 million charge (reflected in "other costs of operations") to reduce the carrying value of the investment to its estimated net realizable value. Similar to other active investment managers, the investee entity has experienced a decrease in assets under management and during the recent quarter the entity's chief executive and investment officer announced his retirement. Following that announcement, successor management submitted a proposal to M&T to restructure the organization of the entity. The after-tax impact of the charge was a reduction in net income of $36 million, or $.27 of diluted earnings per common share. The carrying value of the investment and M&T's share of income of the investee entity are not material to M&T's consolidated financial statements.

During the first quarter of 2019, the Company increased its reserve for legal matters by $50 million in conjunction with matters associated with a subsidiary's role as trustee of Employee Stock Ownership Plans in its Institutional Client Services business. That increase, on an after-tax basis, reduced net income in the initial 2019 quarter by $37 million, or $.27 of diluted earnings per common share. Also during that quarter, M&T realized $37 million of distributed income from Bayview Lending Group LLC ("BLG"), increasing net income in the quarter by $28 million, or $.20 of diluted earnings per common share.

Effective January 1, 2019, the Company adopted new accounting guidance for leases. The new guidance requires lessees to record a right-of-use asset and a lease liability for all leases with a term greater than twelve months. The accounting applied by lessors is largely unchanged, however, the guidance eliminates the accounting model for leveraged leases that commence after December 31, 2018. The Company occupies certain banking offices and uses certain equipment under noncancelable operating lease agreements which, prior to January 1, 2019, were not reflected in its consolidated balance sheet. As of January 1, 2019, the Company recorded right-of-use assets of $394 million and increased lease liabilities of $399 million in its consolidated balance sheet. The adoption of the new guidance did not have a material impact on the consolidated statement of income for the three-month or six-month periods ended June 30, 2019. For additional information on leases, see notes 3 and 4 of Notes to Financial Statements.

On June 27, 2019, M&T announced its 2019 Capital Plan, which covers the four-quarter period that began on July 1, 2019. The 2019 Capital Plan, which has been reviewed and approved by M&T's Board of Directors, reflects capital distributions within the amount that M&T can make over the specified period based on the prior approval of the Board of Governors of the Federal Reserve System. M&T's 2019 Capital Plan reflects net capital distributions of approximately $1.9 billion, which include common and preferred stock dividends as well as repurchases of

M&T's common stock. M&T's Board of Directors may consider an increase in the common stock dividend, at its discretion, during the four-quarter period. All dividends are subject to declaration by M&T's Board of Directors. In July 2019, M&T's Board of Directors authorized a new stock repurchase plan to repurchase up to $1.635 billion of shares of M&T's common stock subject to all applicable regulatory limitations. During the first and second quarters of 2019, M&T repurchased 2,150,000 shares and 2,450,000 shares of its common stock at a total cost of $366 million and $402 million, respectively. During the first and second quarters of 2018, M&T repurchased 3,783,282 shares and 2,608,376 shares of its common stock at a total cost of $721 million and $475 million, respectively.

As of March 31, 2018, the Company increased its reserve for legal matters by $135 million in anticipation of the settlement of a civil litigation matter by a wholly-owned subsidiary of M&T, Wilmington Trust Corporation ("WT Corp."), that related to periods prior to the acquisition of WT Corp. by M&T. The increase, on an after-tax basis, reduced net income by $102 million or $.68 of diluted earnings per common share in the initial quarter of 2018. That matter received final court approval and is now settled. Additionally, M&T realized $23 million of income from BLG during 2018's first quarter, increasing net income in that quarter by $17 million, or $.11 of diluted earnings per common share.

Supplemental Reporting of Non-GAAP Results of Operations

M&T consistently provides supplemental reporting of its results on a "net operating" or "tangible" basis, from which M&T excludes the after-tax effect of amortization of core deposit and other intangible assets (and the related goodwill, core deposit intangible and other intangible asset balances, net of applicable deferred tax amounts) and expenses associated with merging acquired operations into the Company, since such items are considered by management to be "nonoperating" in nature. Although "net operating income" as defined by M&T is not a GAAP measure, M&T's management believes that this information helps investors understand the effect of acquisition activity in reported results.

Net operating income totaled $477 million in the second quarter of 2019, compared with $498 million in the year-earlier quarter and $486 million in the initial 2019 quarter. Diluted net operating earnings per common share for the recent quarter were $3.37, compared with $3.29 in the second quarter of 2018 and $3.38 in the first quarter of 2019. For the first six months of 2019, net operating income and diluted net operating earnings per common share were $963 million and $6.74, respectively, compared with $855 million and $5.54, respectively, in the first half of 2018.

Net operating income in the recent quarter expressed as an annualized rate of return on average tangible assets was 1.68%, compared with 1.79% in the similar quarter of 2018 and 1.76% in the initial 2019 quarter. Net operating income represented an annualized return on average tangible common equity of 18.83% in the second quarter of 2019, compared with 19.91% and 19.56% for the quarters ended June 30, 2018 and March 31, 2019, respectively. For the first half of 2019, net operating income represented an annualized return on average tangible assets and average tangible common shareholders' equity of 1.72% and 19.19%, respectively, compared with 1.53% and 16.65%, respectively, in the corresponding 2018 period.

Reconciliations of GAAP amounts with corresponding non-GAAP amounts are provided in table 2.

Taxable-equivalent Net Interest Income

Taxable-equivalent net interest income was $1.05 billion in the second quarter of 2019, up 3% from $1.01 billion in the year-earlier quarter. That growth resulted predominantly from a widening of the net interest margin, or taxable-equivalent net interest income expressed as an annualized percentage of average earning assets, to 3.91% in the recent quarter from 3.83% in the similar quarter of 2018. The improvement in the net interest margin was largely the result of the higher interest rate environment due to actions initiated by the Federal Reserve to raise its target Federal funds rate in .25% increments four times during 2018. In addition to the impact of the recent quarter's expansion of the net interest margin on net interest income, average earning assets were $1.3 billion higher in the recent quarter as compared with the second quarter of 2018. Taxable-equivalent net interest income in the recent quarter declined $9 million, or 1%, from the first quarter of 2019 primarily driven by a 13 basis point (hundredths of one percent) narrowing of the net interest margin from 4.04% in the prior quarter, partially offset by a $1.4 billion rise in average

earning assets. The increase in average earning assets in the recent quarter as compared with the second quarter of 2018 and the initial 2019 quarter resulted from higher average balances of loans and leases and interest-bearing deposits at banks, partially offset by lower average investment securities balances.

For the first six months of 2019, taxable-equivalent net interest income was $2.10 billion, up 5% from $1.99 billion in the similar 2018 period. That increase was primarily attributable to a 20 basis point widening of the net interest margin to 3.97% in the 2019 period from 3.77% in the year-earlier period.

Average loans and leases totaled $89.2 billion in the second quarter of 2019, up $1.7 billion from $87.4 billion in the corresponding quarter of 2018. Commercial loans and leases averaged $23.3 billion in the second quarter of 2019, $1.6 billion or 7% higher than in the year-earlier quarter. Average commercial real estate loans were $34.8 billion in the recent quarter, up $1.1 billion, or 3%, from $33.7 billion in the similar 2018 quarter. Included in average commercial real estate loans in the second quarters of 2019 and 2018 were loans held for sale of $245 million and $222 million, respectively. Reflecting ongoing repayments of loans obtained in the 2015 acquisition of Hudson City Bancorp, Inc. ("Hudson City"), average residential real estate loans declined $1.9 billion or 10% to $16.7 billion in the second quarter of 2019 from $18.6 billion in the year-earlier quarter. Included in average residential real estate loans were loans held for sale of $227 million in the recent quarter and $285 million in the second quarter of 2018. Consumer loans averaged $14.3 billion in the second quarter of 2019, up $958 million, or 7%, from $13.4 billion in the year-earlier quarter, predominantly due to growth in average recreational finance (consisting predominantly of loans secured by recreational vehicles and boats) and automobile loans that were partially offset by declines in outstanding balances of home equity loans and lines of credit.

Average loan and lease balances in the recent quarter increased $674 million, or 1%, from $88.5 billion in the first quarter of 2019. Average commercial loan and lease balances in the recent quarter were up $326 million, or 1%, from $23.0 billion in the initial 2019 quarter. Average commercial real estate loans in the second quarter of 2019 increased $243 million, or 1%, from $34.5 billion in the first quarter of 2019. Commercial real estate loans held for sale averaged $280 million in the first quarter of 2019. Average balances of residential real estate loans in the recently completed quarter declined $216 million, or 1%, from $16.9 billion in 2019's first quarter, reflecting the continued pay down of loans obtained in the acquisition of Hudson City. The rate of decline of average residential real estate loan balances from the first quarter to the second quarter of 2019 slowed due to higher levels of such loans that are guaranteed by government-related entities that were repurchased to reduce associated servicing costs. Those higher repurchases in the recent quarter were associated with additions to the Company's servicing and sub-servicing loan portfolios during 2019. Average consumer loans in the recent quarter increased $320 million, or 2%, from $14.0 billion in the initial quarter of 2019. The accompanying table summarizes quarterly changes in the major components of the loan and lease portfolio.

AVERAGE LOANS AND LEASES
(net of unearned discount)

		Percent Increase (Decrease) from	
	2nd Qtr. 2019	**2nd Qtr. 2018**	**1st Qtr. 2019**
	(In millions)		
Commercial, financial, etc.	$ 23,335	7 %	1 %
Real estate — commercial	34,768	3	1
Real estate — consumer	16,723	(10)	(1)
Consumer			
Home equity lines and loans	4,704	(8)	(2)
Recreational finance	4,574	29	9
Automobile	3,704	5	1
Other	1,342	14	1
Total consumer	14,324	7	2
Total	$ 89,150	2 %	1 %

For the first six months of 2019, average loans and leases totaled $88.8 billion, up $1.2 billion, or 1%, from $87.6 billion in the corresponding 2018 period. Contributing to that rise were increases in commercial loans of $1.5 billion, or 7%, commercial real estate loans of $977 million, or 3%, and consumer loans of $835 million, or 6%, partially offset by a decline in residential real estate loans of $2.1 billion, or 11%.

The investment securities portfolio is largely comprised of residential mortgage-backed securities and shorter-term U.S. Treasury and federal agency notes. When purchasing investment securities, the Company considers its liquidity position and its overall interest-rate risk profile as well as the adequacy of expected returns relative to risks assumed, including prepayments. The investment securities portfolio averaged $12.2 billion in the second quarter of 2019, down $1.7 billion, or 12%, from $13.9 billion in the year-earlier quarter and $778 million lower than the $12.9 billion averaged in the first quarter of 2019. For the first six months of 2019 and 2018, investment securities averaged $12.6 billion and $14.2 billion, respectively. The lower average balances in the recent periods reflect maturities of U.S. Treasury notes and pay downs of mortgage-backed securities. During the first quarter of 2019, the Company purchased $500 million of U.S. Treasury notes. There were no significant purchases of investment securities during the recent quarter or the first six months of 2018.

Fair value changes in equity securities with readily determinable fair values are recognized in the consolidated statement of income. Net unrealized gains on such equity securities were $9 million in the recent quarter, compared with net unrealized gains of $2 million and $12 million in the quarters ended June 30, 2018 and March 31, 2019, respectively. Those gains were predominantly related to the Company's holdings of Fannie Mae and Freddie Mac preferred stock.

The Company may occasionally sell investment securities as a result of changes in interest rates and spreads, actual or anticipated prepayments, credit risk associated with a particular security, or as a result of restructuring its investment securities portfolio in connection with a business combination. There were no significant sales of investment securities during the six-month periods ended June 30, 2019 or 2018. The amounts of investment securities held by the Company are influenced by such factors as demand for loans, which generally yield more than investment securities and other earning assets, ongoing repayments, the levels of deposits, and management of liquidity and balance sheet size and resulting capital ratios.

The Company regularly reviews its investment securities for declines in value below amortized cost that might be characterized as "other than temporary." There were no other-than-temporary impairment charges recognized in either of the six-month periods ended June 30, 2019 or 2018. Based on management's assessment of future cash flows associated with individual investment securities as of June 30, 2019, the Company concluded that declines in value below amortized cost associated with individual investment securities were temporary in nature. A further discussion of fair values of investment securities is included herein under the heading "Capital." Additional information about the investment securities portfolio is included in notes 2 and 12 of Notes to Financial Statements.

Other earning assets include interest-bearing deposits at the Federal Reserve Bank of New York and other banks, trading account assets and federal funds sold. Those other earning assets in the aggregate averaged $6.2 billion in the second quarter of 2019, compared with $4.9 billion in the year-earlier quarter and $4.7 billion in the first quarter of 2019. Interest-bearing deposits at banks averaged $6.1 billion, $4.9 billion and $4.6 billion during the three-month periods ended June 30, 2019, June 30, 2018 and March 31, 2019, respectively. The amounts of interest-bearing deposits at banks at the respective dates were predominantly comprised of deposits held at the Federal Reserve Bank of New York. The levels of those deposits often fluctuate due to changes in trust-related and commercial deposits, purchases or maturities of investment securities, or borrowings to manage the Company's liquidity.

As a result of the changes described herein, average earning assets totaled $107.5 billion in the most recent quarter, compared with $106.2 billion in the second quarter of 2018 and $106.1 billion in the initial 2019 quarter. Average earning assets totaled $106.8 billion and $106.7 billion during the first six months of 2019 and 2018, respectively.

The most significant source of funding for the Company is core deposits. The Company considers noninterest-bearing deposits, interest-bearing transaction accounts, savings deposits and time deposits of $250,000 or less as core

deposits. The Company's branch network is its principal source of core deposits, which generally carry lower interest rates than wholesale funds of comparable maturities. Average core deposits totaled $86.2 billion in the second quarter of 2019, compared with $87.7 billion in the similar 2018 quarter and $84.8 billion in the first quarter of 2019. The decline in average core deposits in the recent quarter as compared with the second quarter of 2018 reflected lower balances of noninterest-bearing deposits, primarily commercial customer deposits, partially offset by higher mortgage escrow deposits. As compared with the 2019's initial quarter, the most significant factor contributing to the higher average core deposits in the recent quarter was a rise in mortgage escrow deposits. The following table provides an analysis of quarterly changes in the components of average core deposits.

AVERAGE CORE DEPOSITS

		Percent Increase (Decrease) from	
	2nd Qtr. 2019	2nd Qtr. 2018	1st Qtr. 2019
	(In millions)		
Savings and interest-checking deposits	$ 50,794	— %	3 %
Time deposits	5,340	—	1
Noninterest-bearing deposits	30,099	(4)	(1)
Total	$ 86,233	(2)%	2 %

The Company also receives funding from other deposit sources, including branch-related time deposits over $250,000, deposits associated with the Company's Cayman Islands office and brokered deposits. Time deposits over $250,000, excluding brokered deposits, averaged $1.2 billion in the recent quarter, compared with $609 million in the second quarter of 2018 and $1.0 billion in the initial 2019 quarter. The increases in such deposits since the second quarter of 2018 were predominantly the result of the higher interest rate environment and customers' desire to earn a higher return on their deposits. Cayman Islands office deposits averaged $1.2 billion, $225 million and $972 million for the quarters ended June 30, 2019, June 30, 2018 and March 31, 2019, respectively. The increases in such deposits from the second quarter of 2018 were the result of customers' desire to sweep their deposit balances into higher earning products. The Company had brokered savings and interest-bearing transaction accounts, which in the aggregate averaged $2.7 billion, $1.7 billion and $2.9 billion during the second quarter of 2019, the similar 2018 quarter and the first quarter of 2019, respectively. Additional amounts of Cayman Islands office deposits or brokered deposits may be added in the future depending on market conditions, including demand by customers and other investors for those deposits, and the cost of funds available from alternative sources at the time.

The Company also uses borrowings from banks, securities dealers, various Federal Home Loan Banks, the Federal Reserve Bank of New York and others as sources of funding. Short-term borrowings represent borrowing arrangements that at the time they were entered into had a contractual maturity of one year or less. Average short-term borrowings totaled $1.3 billion in the second quarter of 2019, compared with $353 million in the year-earlier quarter and $1.1 billion in the initial 2019 quarter. Included in short-term borrowings were unsecured federal funds borrowings, which generally mature on the next business day, that averaged $323 million in the recent quarter, $232 million in the second quarter of 2018 and $320 million in the first quarter of 2019. Overnight federal funds borrowings totaled $3.2 billion at June 30, 2019, $2.6 billion at June 30, 2018 and $3.4 billion at March 31, 2019. Short-term borrowings from Federal Home Loan Banks averaged $890 million in the recently completed quarter, $72 million in the year-earlier quarter and $718 million in the initial 2019 quarter. In general, the higher short-term borrowings were entered into to help ensure compliance with Liquidity Coverage Ratio ("LCR") requirements and for other liquidity purposes. The LCR requirements are intended to ensure that banks hold a sufficient amount of "high quality liquid assets" to cover the anticipated net cash outflows during a hypothetical acute 30-day stress scenario. For additional information concerning the LCR rules, refer to Part I, Item 1 of M&T's Form 10-K for the year ended December 31, 2018 under the heading "Liquidity."

Long-term borrowings averaged $8.3 billion in the recent quarter, compared with $8.5 billion in each of the second quarter of 2018 and first quarter of 2019. Average balances of outstanding senior unsecured notes were $5.5 billion during each of the three-month periods ended June 30, 2019, June 30, 2018 and March 31, 2019. Also included in average long-term borrowings were amounts borrowed from the Federal Home Loan Banks of New York and Pittsburgh of $394 million in the recent quarter, compared with $577 million in the second quarter of 2018 and $576 million in the initial 2019 quarter. Subordinated capital notes included in long-term borrowings averaged $1.4 billion in each of the three-month periods ended June 30, 2019, June 30, 2018 and March 31, 2019. Junior subordinated debentures associated with trust preferred securities that were included in average long-term borrowings were $523 million in the recent quarter, compared with $520 million and $522 million in the second quarter of 2018 and the initial 2019 quarter, respectively. Additional information regarding junior subordinated debentures is provided in note 5 of Notes to Financial Statements. Long-term borrowings also included agreements to repurchase securities, which averaged $373 million in the second quarter of 2019, $417 million in the year-earlier quarter and $408 million in the first quarter of 2019. The repurchase agreements held at June 30, 2019 totaled $103 million and have various repurchase dates through 2020, however, the contractual maturities of the underlying securities extend beyond such repurchase dates.

Net interest income can be impacted by changes in the composition of the Company's earning assets and interest-bearing liabilities, as discussed herein, as well as changes in interest rates and spreads. Net interest spread, or the difference between the taxable-equivalent yield on earning assets and the rate paid on interest-bearing liabilities, was 3.53% in the recent quarter, compared with 3.57% in the second 2018 quarter. The yield on earning assets during the second quarter of 2019 was 4.64%, up 36 basis points from 4.28% in the year-earlier period, while the rate paid on interest-bearing liabilities increased 40 basis points to 1.11% in the recent quarter from .71% in the similar 2018 period. In the first quarter of 2019, the net interest spread was 3.67%, the yield on earning assets was 4.71% and the rate paid on interest-bearing liabilities was 1.04%. During the recent quarter, the net interest spread narrowed from the year-earlier quarter and the initial 2019 quarter. As compared with the second quarter of 2018, the effect of increases in short-term interest rates initiated by the Federal Reserve during 2018 contributed to higher yields on loans and leases and rates on interest-bearing deposits. However, during the second quarter of 2019, declines in the London Interbank Offered Rate ("LIBOR"), in anticipation of a decrease in short-term interest rates by the Federal Reserve, reduced the yields earned on loans and leases as compared with the first quarter of 2019. That decline resulted in a seven basis point narrowing of the yield on earning assets in the recent quarter. In addition, the rate paid on interest-bearing liabilities increased from the first 2019 quarter by seven basis points, resulting in a decline in the net interest spread of 14 basis points in the recent quarter. The rise in the rate paid on interest-bearing liabilities in the recent quarter was largely due to an increase in mortgage escrow deposits, in conjunction with growth in residential mortgage servicing balances. The rate paid on those deposits are often indexed to the federal funds rate or LIBOR, and are higher than the rates paid on most other savings and interest-checking accounts. For the first six months of 2019, the net interest spread was 3.60%, up eight basis points from the year-earlier period. The yield on earning assets and the rate paid on interest-bearing liabilities for the first half of 2019 were 4.68% and 1.08%, respectively, compared with 4.20% and .68%, respectively, in the initial six months of 2018.

Net interest-free funds consist largely of noninterest-bearing demand deposits and shareholders' equity, partially offset by bank owned life insurance and non-earning assets, including goodwill and core deposit and other intangible assets. Net interest-free funds averaged $36.7 billion in the second quarter of 2019, compared with $38.6 billion in the year-earlier quarter and $37.1 billion in the initial 2019 quarter. The decrease in average net interest-free funds in the two most recent quarters as compared with the second quarter of 2018 largely reflects lower average balances of noninterest-bearing deposits. Those deposits averaged $30.1 billion, $31.4 billion and $30.3 billion in the quarters ended June 30, 2019, June 30, 2018 and March 31, 2019, respectively. The decline in such balances in the recent quarter as compared with the second quarter of 2018 was largely due to lower levels of deposits of commercial and municipal customers. During the first six months of 2019 and 2018, average net interest-free funds aggregated $36.9 billion and $38.9 billion, respectively. Shareholders' equity averaged $15.6 billion during each of the three-month periods ended June 30, 2019 and March 31, 2019 and $15.5 billion during the three-month period ended June 30, 2018. Goodwill and core deposit and other intangible assets averaged $4.6 billion in each of the two

most recent quarters, compared with $4.7 billion in the quarter ended June 30, 2018. The cash surrender value of bank owned life insurance averaged $1.8 billion in each of the quarters ended June 30, 2019, June 30, 2018 and March 31, 2019. Increases in the cash surrender value of bank owned life insurance and benefits received are not included in interest income, but rather are recorded in "other revenues from operations." The contribution of net interest-free funds to net interest margin was .38% in the second quarter of 2019, compared with .26% and .37% in the second quarter of 2018 and first quarter of 2019, respectively. The increased contribution of net interest-free funds to net interest margin in the two most recent quarters as compared with the second 2018 quarter reflects the higher rates on interest-bearing liabilities used to value net interest-free funds. The contribution for the first half of 2019 and 2018 was .37% and .25%, respectively.

Reflecting the changes to the net interest spread and the contribution of interest-free funds as described herein, the Company's net interest margin was 3.91% in the second quarter of 2019, compared with 3.83% in the year-earlier period and 4.04% in the initial quarter of 2019. During the first six months of 2019 and 2018, the net interest margin was 3.97% and 3.77%, respectively. Future changes in market interest rates or spreads, as well as changes in the composition of the Company's portfolios of earning assets and interest-bearing liabilities that result in reductions in spreads, could adversely impact the Company's net interest income and net interest margin.

Management assesses the potential impact of future changes in interest rates and spreads by projecting net interest income under several interest rate scenarios. In managing interest rate risk, the Company has utilized interest rate swap agreements to modify the repricing characteristics of certain portions of its earning assets and interest-bearing liabilities. Periodic settlement amounts arising from these agreements are reflected in either the yields on earning assets or the rates paid on interest-bearing liabilities. The notional amount of interest rate swap agreements entered into for interest rate risk management purposes was $17.8 billion (excluding $21.4 billion of forward-starting swap agreements) at June 30, 2019, $7.6 billion (excluding $4.9 billion of forward-starting swap agreements) at June 30, 2018, $7.3 billion (excluding $12.6 billion of forward-starting swap agreements) at December 31, 2018 and $17.8 billion (excluding $16.4 billion of forward-starting swap agreements) at March 31, 2019. Under the terms of those interest rate swap agreements, the Company received payments based on the outstanding notional amount at fixed rates and made payments at variable rates. Interest rate swap agreements serving as cash flow hedges of interest payments associated with variable rate commercial real estate loans had notional amounts of $13.4 billion at each of June 30, 2019 and March 31, 2019, compared with $2.85 billion at each of June 30, 2018 and December 31, 2018. Interest rate swap agreements serving as fair value hedges of fixed rate long-term borrowings had notional values of $4.45 billion at each of June 30, 2019 and December 31, 2018, compared with $4.7 billion at June 30, 2018.

In a fair value hedge, the fair value of the derivative (the interest rate swap agreement) and changes in the fair value of the hedged item are recorded in the Company's consolidated balance sheet with the corresponding gain or loss recognized in current earnings. The difference between changes in the fair value of the interest rate swap agreements and the hedged items represents hedge ineffectiveness and is recorded as an adjustment to the interest income or interest expense of the respective hedged item. In a cash flow hedge, the effective portion of the derivative's gain or loss is initially reported as a component of other comprehensive income and subsequently reclassified into earnings when the forecasted transaction affects earnings. The ineffective portion of the derivative's gain or loss on cash flow hedges is accounted for similar to that associated with fair value hedges. The amounts of hedge ineffectiveness recognized during each of the quarters ended June 30, 2019, June 30, 2018 and March 31, 2019 were not material to the Company's consolidated results of operations. Information regarding the fair value of interest rate swap agreements and hedge ineffectiveness is presented in note 10 of Notes to Financial Statements. The changes in the fair values of the interest rate swap agreements and the hedged items primarily result from the effects of changing interest rates and spreads.

The weighted-average rates to be received and paid under interest rate swap agreements currently in effect were 2.40% and 2.55%, respectively, at June 30, 2019. The average notional amounts of interest rate swap agreements entered into for interest rate risk management purposes, the related effect on net interest income and margin, and the weighted-average interest rates paid or received on those swap agreements are presented in the accompanying table.

Additional information about the Company's use of interest rate swap agreements and other derivatives is included in note 10 of Notes to Financial Statements.

INTEREST RATE SWAP AGREEMENTS

	Three Months Ended June 30			
	2019		2018	
	Amount	Rate(a)	Amount	Rate(a)
	(Dollars in thousands)			
Increase (decrease) in:				
Interest income	$ (4,551)	(.02) %	$ (2,889)	(.01) %
Interest expense	6,343	.04	2,332	.01
Net interest income/margin	$ (10,894)	(.04) %	$ (5,221)	(.02) %
Average notional amount (c)	$ 17,800,000		$ 7,550,000	
Rate received (b)		2.37 %		2.06 %
Rate paid (b)		2.60 %		2.33 %

	Six Months Ended June 30			
	2019		2018	
	Amount	Rate(a)	Amount	Rate(a)
	(Dollars in thousands)			
Increase (decrease) in:				
Interest income	$ (11,176)	(.02) %	$ (3,469)	(.01) %
Interest expense	12,728	.04	803	—
Net interest income/margin	$ (23,904)	(.05) %	$ (4,272)	(.01) %
Average notional amount (c)	$ 15,245,580		$ 7,590,608	
Rate received (b)		2.33 %		2.05 %
Rate paid (b)		2.64 %		2.16 %

(a) Computed as an annualized percentage of average earning assets or interest-bearing liabilities.
(b) Weighted-average rate paid or received on interest rate swap agreements in effect during the period.
(c) Excludes forward-starting interest rate swap agreements not in effect during the period.

In addition to interest rate swap agreements, the Company has entered into interest rate floor agreements that are accounted for in the trading account rather than as hedging instruments but, nevertheless, provide the Company with protection against the possibility of future declines in interest rates on earning assets. At each of June 30, 2019, June 30, 2018 and December 31, 2018, outstanding notional amounts of such agreements totaled $15.6 billion. The fair value of those interest rate floor agreements was $4.2 million at June 30, 2019, $2.2 million at June 30, 2018 and $1.9 million at December 31, 2018 and was included in trading account assets in the consolidated balance sheet. Changes in the fair value of those agreements are recorded as "trading account and foreign exchange gains" in the consolidated statement of income.

As a financial intermediary, the Company is exposed to various risks, including liquidity and market risk. Liquidity refers to the Company's ability to ensure that sufficient cash flow and liquid assets are available to satisfy current and future obligations, including demands for loans and deposit withdrawals, funding operating costs, and other corporate purposes. Liquidity risk arises whenever the maturities of financial instruments included in assets and liabilities differ. The most significant source of funding for the Company is deposits, which are generated from a large base of consumer, corporate and institutional customers. That customer base has, over the past several years, become more geographically diverse as a result of acquisitions and expansion of the Company's businesses. Nevertheless, the Company faces competition in offering products and services from a large array of financial market participants, including banks, thrifts, mutual funds, securities dealers and others. The Company supplements funding provided through deposits with various short-term and long-term wholesale borrowings. M&T's bank subsidiaries have access to additional funding sources through borrowings from the FHLB of New York, lines of credit with the Federal Reserve Bank of New York, M&T Bank's Bank Note Program, and other available borrowing facilities. The Bank Note Program enables M&T Bank to offer unsecured senior and subordinated notes.

The Company has, from time to time, also issued subordinated capital notes and junior subordinated debentures associated with trust preferred securities to provide liquidity and enhance regulatory capital ratios. The Company's junior subordinated debentures associated with trust preferred securities and other subordinated capital notes are considered Tier 2 capital and are includable in total regulatory capital. At June 30, 2019 and December 31, 2018, long-term borrowings aggregated $7.7 billion and $8.4 billion, respectively. The decline in long-term borrowings reflects maturities of FHLB borrowings and repurchase agreements.

The Company has informal and sometimes reciprocal sources of funding available through various arrangements for unsecured short-term borrowings from other banks and financial institutions. Short-term federal funds borrowings were $3.2 billion, $2.6 billion and $137 million at June 30, 2019, June 30, 2018 and December 31, 2018, respectively. In general, those borrowings were unsecured and matured on the next business day. The amount of such borrowings often fluctuates in conjunction with the Company's management of its liquidity position, including compliance with LCR requirements. Cayman Islands office deposits are generally used to satisfy customer demand via a deposit sweep product, and may also be used as an alternative to short-term borrowings. Cayman Islands office deposits totaled $1.4 billion at June 30, 2019, $261 million at June 30, 2018 and $812 million at December 31, 2018. The Company has also benefited from the placement of brokered deposits. The Company had brokered savings and interest-bearing checking deposit accounts which aggregated approximately $2.7 billion at June 30, 2019, $2.1 billion at June 30, 2018 and $3.0 billion at December 31, 2018. Brokered time deposits were not a significant source of funding as of those dates.

The Company's ability to obtain funding from these sources could be negatively impacted should the Company experience a substantial deterioration in its financial condition or its debt ratings, or should the availability of funding become restricted due to a disruption in the financial markets. The Company attempts to quantify such credit-event risk by modeling scenarios that estimate the liquidity impact resulting from a short-term ratings downgrade over various grading levels. Such impact is estimated by attempting to measure the effect on available unsecured lines of credit, available capacity from secured borrowing sources and securitizable assets. In addition to deposits and borrowings, other sources of liquidity include maturities of investment securities and other earning assets, repayments of loans and investment securities, and cash generated from operations, such as fees collected for services.

Certain customers of the Company obtain financing through the issuance of variable rate demand bonds ("VRDBs"). The VRDBs are generally enhanced by letters of credit provided by M&T Bank. M&T Bank oftentimes acts as remarketing agent for the VRDBs and, at its discretion, may from time-to-time own some of the VRDBs while such instruments are remarketed. When this occurs, the VRDBs are classified as trading account assets in the Company's consolidated balance sheet. Nevertheless, M&T Bank is not contractually obligated to purchase the VRDBs. The value of VRDBs in the Company's trading account was not material at June 30, 2019 or December 31, 2018. The total amounts of VRDBs outstanding backed by M&T Bank letters of credit were $847 million at June 30, 2019, compared with $903 million at June 30, 2018 and $793 million at December 31, 2018. M&T Bank also serves as remarketing agent for most of those bonds.

The Company enters into contractual obligations in the normal course of business that require future cash payments. Such obligations include, among others, payments related to deposits, borrowings, leases and other contractual commitments. Off-balance sheet commitments to customers may impact liquidity, including commitments to extend credit, standby letters of credit, commercial letters of credit, financial guarantees and indemnification contracts, and commitments to sell real estate loans. Because many of these commitments or contracts expire without being funded in whole or in part, the contract amounts are not necessarily indicative of future cash flows. Further discussion of these commitments is provided in note 13 of Notes to Financial Statements.

M&T's primary source of funds to pay for operating expenses, shareholder dividends and treasury stock repurchases has historically been the receipt of dividends from its bank subsidiaries, which are subject to various regulatory limitations. Dividends from any bank subsidiary to M&T are limited by the amount of earnings of the subsidiary in the current year and the two preceding years. For purposes of that test, at June 30, 2019 approximately $587 million was available for payment of dividends to M&T from bank subsidiaries. M&T also may obtain funding through long-term borrowings. Outstanding senior notes of M&T at June 30, 2019 and December 31, 2018

were $772 million and $756 million, respectively. Junior subordinated debentures of M&T associated with trust preferred securities outstanding at June 30, 2019 and December 31, 2018 totaled $524 million and $522 million, respectively.

Management closely monitors the Company's liquidity position on an ongoing basis for compliance with internal policies and believes that available sources of liquidity are adequate to meet funding needs anticipated in the normal course of business. Management does not anticipate engaging in any activities, either currently or in the long-term, for which adequate funding would not be available and would therefore result in a significant strain on liquidity at either M&T or its subsidiary banks. Banking regulators have enacted the LCR rules requiring a banking company to maintain a minimum amount of liquid assets to withstand a standardized supervisory liquidity stress scenario. The Company is in compliance with the requirements of those rules.

Market risk is the risk of loss from adverse changes in the market prices and/or interest rates of the Company's financial instruments. The primary market risk the Company is exposed to is interest rate risk. Interest rate risk arises from the Company's core banking activities of lending and deposit-taking, because assets and liabilities reprice at different times and by different amounts as interest rates change. As a result, net interest income earned by the Company is subject to the effects of changing interest rates. The Company measures interest rate risk by calculating the variability of net interest income in future periods under various interest rate scenarios using projected balances for earning assets, interest-bearing liabilities and derivatives used to manage interest rate risk. Management's philosophy toward interest rate risk management is to limit the variability of net interest income. The balances of financial instruments used in the projections are based on expected growth from forecasted business opportunities, anticipated prepayments of loans and investment securities, and expected maturities of investment securities, loans and deposits. Management uses a "value of equity" model to supplement the modeling technique described above. Those supplemental analyses are based on discounted cash flows associated with on- and off-balance sheet financial instruments. Such analyses are modeled to reflect changes in interest rates and provide management with a long-term interest rate risk metric. The Company has entered into interest rate swap agreements to help manage exposure to interest rate risk. At June 30, 2019, the aggregate notional amount of interest rate swap agreements entered into for risk management purposes that were currently in effect was $17.8 billion. In addition, the Company has entered into $21.4 billion of forward-starting interest rate swap agreements that will become effective as other swap agreements mature.

The Company's Asset-Liability Committee, which includes members of senior management, monitors the sensitivity of the Company's net interest income to changes in interest rates with the aid of a computer model that forecasts net interest income under different interest rate scenarios. In modeling changing interest rates, the Company considers different yield curve shapes that consider both parallel (that is, simultaneous changes in interest rates at each point on the yield curve) and non-parallel (that is, allowing interest rates at points on the yield curve to vary by different amounts) shifts in the yield curve. In utilizing the model, market-implied forward interest rates over the subsequent twelve months are generally used to determine a base interest rate scenario for the net interest income simulation. That calculated base net interest income is then compared to the income calculated under the varying interest rate scenarios. The model considers the impact of ongoing lending and deposit-gathering activities, as well as interrelationships in the magnitude and timing of the repricing of financial instruments, including the effect of changing interest rates on expected prepayments and maturities. When deemed prudent, management has taken actions to mitigate exposure to interest rate risk through the use of on- or off-balance sheet financial instruments and intends to do so in the future. Possible actions include, but are not limited to, changes in the pricing of loan and deposit products, modifying the composition of earning assets and interest-bearing liabilities, and adding to, modifying or terminating existing interest rate swap agreements or other financial instruments used for interest rate risk management purposes.

The accompanying table as of June 30, 2019 and December 31, 2018 displays the estimated impact on net interest income in the base scenario described above resulting from parallel changes in interest rates across repricing categories during the first modeling year.

SENSITIVITY OF NET INTEREST INCOME
TO CHANGES IN INTEREST RATES

Changes in interest rates	Calculated Increase (Decrease) in Projected Net Interest Income	
	June 30, 2019	December 31, 2018
	(In thousands)	
+200 basis points	$ 21,971	37,513
+100 basis points	24,581	36,727
-100 basis points	(72,556)	(114,307)

The Company utilized many assumptions to calculate the impact that changes in interest rates may have on net interest income. The more significant of those assumptions included the rate of prepayments of mortgage-related assets, cash flows from derivative and other financial instruments held for non-trading purposes, loan and deposit volumes and pricing, and deposit maturities. In the scenarios presented, the Company also assumed gradual changes in interest rates during a twelve-month period as compared with the base scenario. In the declining rate scenario, the rate changes may be limited to lesser amounts such that interest rates remain positive on all points of the yield curve. The assumptions used in interest rate sensitivity modeling are inherently uncertain and, as a result, the Company cannot precisely predict the impact of changes in interest rates on net interest income. Actual results may differ significantly from those presented due to the timing, magnitude and frequency of changes in interest rates and changes in market conditions and interest rate differentials (spreads) between maturity/repricing categories, as well as any actions, such as those previously described, which management may take to counter such changes. The sensitivity of net interest income to changes in interest rates has lessened as of June 30, 2019 as compared with the December 31, 2018 as the Company has entered into interest rate swap agreements to mitigate exposure to declining interest rates. The Company has also entered into interest rate floor agreements that are included in the trading account. Such floor agreements provide the Company with protection against the possibility of future declines in interest rates on its earning assets. In light of the uncertainties and assumptions associated with the process, the amounts presented in the table are not considered significant to the Company's past or projected net interest income.

Changes in fair value of the Company's financial instruments can also result from a lack of trading activity for similar instruments in the financial markets. That impact is most notable on the values assigned to some of the Company's investment securities. Information about the fair valuation of investment securities is presented herein under the heading "Capital" and in notes 2 and 12 of Notes to Financial Statements.

The Company engages in limited trading account activities to meet the financial needs of customers and to fund the Company's obligations under certain deferred compensation plans. Financial instruments utilized for trading account activities consist predominantly of interest rate contracts, such as interest rate swap agreements, and forward and futures contracts related to foreign currencies. The Company generally mitigates the foreign currency and interest rate risk associated with trading account activities by entering into offsetting trading positions that are also included in the trading account. The fair values of trading account positions associated with interest rate contracts and foreign currency and other option and futures contracts are presented in note 10 of Notes to Financial Statements. The amounts of gross and net trading account positions, as well as the type of trading account activities conducted by the Company, are subject to a well-defined series of potential loss exposure limits established by management and approved by M&T's Board of Directors. However, as with any non-government guaranteed financial instrument, the Company is exposed to credit risk associated with counterparties to the Company's trading account activities.

The notional amounts of interest rate contracts entered into for trading account purposes totaled $44.4 billion at June 30, 2019, $40.3 billion at June 30, 2018 and $42.9 billion at December 31, 2018. The notional amounts of foreign currency and other option and futures contracts entered into for trading account purposes were $949 million at June 30, 2019, compared with $647 million at June 30, 2018 and $763 million at December 31, 2018. Although the notional amounts of these contracts are not recorded in the consolidated balance sheet, the unsettled fair values of all financial instruments used for trading account activities are recorded in the consolidated balance sheet. The fair values of all trading account assets and liabilities recognized on the balance sheet were $479 million and $73

million, respectively, at June 30, 2019 and $186 million and $178 million, respectively, at December 31, 2018. The fair value asset and liability amounts at June 30, 2019 have been reduced by contractual settlements of $29 million and $281 million, respectively, and at December 31, 2018 have been reduced by contractual settlements of $171 million and $50 million, respectively. Included in trading account assets were assets related to deferred compensation plans aggregating $21 million at each of June 30, 2019, June 30, 2018 and December 31, 2018. Changes in the fair values of such assets are recorded as "trading account and foreign exchange gains" in the consolidated statement of income. Included in "other liabilities" in the consolidated balance sheet at June 30, 2019 were $24 million of liabilities related to deferred compensation plans, compared with $26 million at June 30, 2018 and $25 million at December 31, 2018. Changes in the balances of such liabilities due to the valuation of allocated investment options to which the liabilities are indexed are recorded in "other costs of operations" in the consolidated statement of income. Also included in trading account assets were investments in mutual funds and other assets that the Company was required to hold under terms of certain non-qualified supplemental retirement and other benefit plans that were assumed by the Company in various acquisitions. Those assets totaled $27 million at June 30, 2019 and $25 million at each of June 30, 2018 and December 31, 2018.

Given the Company's policies, limits and positions, management believes that the potential loss exposure to the Company resulting from market risk associated with trading account activities was not material, however, as previously noted, the Company is exposed to credit risk associated with counterparties to transactions related to the Company's trading account activities. Additional information about the Company's use of derivative financial instruments in its trading account activities is included in note 10 of Notes to Financial Statements.

Provision for Credit Losses

The Company maintains an allowance for credit losses that in management's judgment appropriately reflects losses inherent in the loan and lease portfolio. A provision for credit losses is recorded to adjust the level of the allowance as deemed necessary by management. The provision for credit losses in the second quarter of 2019 was $55 million, compared with $35 million in the year-earlier quarter and $22 million in the initial quarter of 2019. For the six-month period ended June 30, 2019 and June 30, 2018, the provision for credit losses totaled $77 million and $78 million, respectively. Net charge-offs of loans were $44 million in the recent quarter, compared with $35 million and $22 million in the second quarter of 2018 and the first quarter of 2019, respectively. Net charge-offs as an annualized percentage of average loans and leases were .20% in the recent quarter, .16% in the year-earlier quarter and .10% in the first quarter of 2019. Net charge-offs for the six-month periods ended June 30, 2019 and 2018 were $67 million and $76 million, respectively, representing an annualized .15% and .17%, respectively, of average loans and leases. A summary of net charge-offs by loan type is presented in the table that follows.

NET CHARGE-OFFS (RECOVERIES)
BY LOAN/LEASE TYPE

	2019		
	First Quarter	Second Quarter	Year-to-date
	(In thousands)		
Commercial, financial, leasing, etc.	$ 706	10,102	10,808
Real estate:			
Commercial	(543)	9,200	8,657
Residential	1,542	1,749	3,291
Consumer	20,402	23,419	43,821
	$ 22,107	44,470	66,577

	2018		
	First Quarter	Second Quarter	Year-to-date
	(In thousands)		
Commercial, financial, leasing, etc.	$ 9,758	8,491	18,249
Real estate:			
Commercial	1,143	3,111	4,254
Residential	2,844	2,166	5,010
Consumer	26,782	21,655	48,437
	$ 40,527	35,423	75,950

Included in net charge-offs of consumer loans were: automobile loans of $6 million in the recent quarter, $8 million in the second quarter of 2018 and $7 million in the first quarter of 2019; recreational finance loans of $5 million in the second quarter of 2019, $3 million in the year-earlier quarter and $7 million in the initial 2019 quarter; and home equity loans and lines of credit secured by one-to-four family residential properties of $1 million in the recent quarter, $3 million in last year’s second quarter and $1 million in the first quarter of 2019.

Loans acquired in connection with acquisition transactions subsequent to 2008 were recorded at fair value with no carry-over of any previously recorded allowance for credit losses. Determining the fair value of the acquired loans required estimating cash flows expected to be collected on the loans and discounting those cash flows at then-current interest rates. For acquired loans where fair value was less than outstanding principal as of the acquisition date and the resulting discount was due, at least in part, to credit deterioration, the excess of expected cash flows over the carrying value of the loans is recognized as interest income over the lives of loans. The difference between contractually required payments and the cash flows expected to be collected is referred to as the nonaccretable balance and is not recorded on the consolidated balance sheet. The nonaccretable balance reflects estimated future credit losses and other contractually required payments that the Company does not expect to collect. The Company regularly evaluates the reasonableness of its cash flow projections associated with such loans, including its estimates of lifetime principal losses. Any decreases to the expected cash flows require the Company to evaluate the need for an additional allowance for credit losses and could lead to charge-offs of loan balances. Any significant increases in expected cash flows result in additional interest income to be recognized over the then-remaining lives of the loans. The carrying amount of loans acquired at a discount subsequent to 2008 and accounted for based on expected cash flows was $655 million, $864 million and $727 million at June 30, 2019, June 30, 2018 and December 31, 2018, respectively. The nonaccretable balance related to remaining principal losses associated with loans acquired at a discount as of June 30, 2019 and December 31, 2018 is presented in the accompanying table.

NONACCRETABLE BALANCE - PRINCIPAL

	Remaining balance	
	June 30, 2019	December 31, 2018
	(In thousands)	
Commercial, financial, leasing, etc.	$ 1,439	3,106
Commercial real estate	4,575	7,545
Residential real estate	21,045	25,817
Consumer	4,142	6,099
Total	$ 31,201	42,567

For acquired loans where the fair value exceeded the outstanding principal balance, the resulting premium is recognized as a reduction of interest income over the lives of the loans. Immediately following the acquisition date and thereafter, an allowance for credit losses is recorded for incurred losses inherent in the portfolio, consistent with the accounting for originated loans and leases. The carrying amount of loans acquired in 2015 at a premium was $8.4 billion and $9.3 billion at June 30, 2019 and December 31, 2018, respectively. GAAP does not allow the credit loss component of the net premium associated with those loans to be bifurcated and accounted for as a nonaccreting balance as is the case with purchased impaired loans and other loans acquired at a discount. Rather, subsequent to the acquisition date, incurred losses associated with those loans are evaluated using methods consistent with those applied to originated loans and such losses are considered by management in evaluating the Company's allowance for credit losses.

Nonaccrual loans were $865 million or .96% of total loans and leases outstanding at June 30, 2019, compared with $820 million or .93% a year earlier, $894 million or 1.01% at December 31, 2018 and $882 million or .99% at March 31, 2019.

Accruing loans past due 90 days or more (excluding loans acquired at a discount) aggregated $349 million, or .39% of total loans and leases at June 30, 2019, compared with $223 million or .25% at each of June 30, 2018 and December 31, 2018, and $244 million or .28% at March 31, 2019. Those amounts included loans guaranteed by government-related entities of $320 million, $202 million, $192 million and $195 million at June 30, 2019, June 30, 2018, December 31, 2018 and March 31, 2019, respectively. Guaranteed loans included one-to-four family residential mortgage loans serviced by the Company that were repurchased to reduce associated servicing costs, including a requirement to advance principal and interest payments that had not been received from individual mortgagors. Despite the loans being purchased by the Company, the insurance or guarantee by the applicable government-related entity remains in force. The outstanding principal balances of the repurchased loans that are guaranteed by government-related entities totaled $300 million at June 30, 2019, $175 million a year earlier, $165 million at December 31, 2018 and $169 million at March 31, 2019. The increase in such loans at the recent quarter-end as compared with the prior dates resulted from repurchases of loans associated with the servicing and sub-servicing the Company added in 2019. The remaining accruing loans past due 90 days or more not guaranteed by government-related entities were loans considered to be with creditworthy borrowers that were in the process of collection or renewal.

Purchased impaired loans are loans obtained in acquisition transactions subsequent to 2008 that as of the acquisition date were specifically identified as displaying signs of credit deterioration and for which the Company did not expect to collect all contractually required principal and interest payments. Those loans were impaired at the date of acquisition, were recorded at estimated fair value and were generally delinquent in payments, but, in accordance with GAAP, the Company continues to accrue interest income on such loans based on the estimated expected cash flows associated with the loans. The carrying amount of such loans was $263 million at June 30, 2019 or .3% of total loans, compared with $352 million at June 30, 2018 and $303 million at December 31, 2018.

The Company modified the terms of select loans in an effort to assist borrowers. If the borrower was experiencing financial difficulty and a concession was granted, the Company considered such modifications as troubled debt restructurings. Loan modifications included such actions as the extension of loan maturity dates and

the lowering of interest rates and monthly payments. The objective of the modifications was to increase loan repayments by customers and thereby reduce net charge-offs. In accordance with GAAP, the modified loans are included in impaired loans for purposes of determining the level of the allowance for credit losses. Information about modifications of loans that are considered troubled debt restructurings is included in note 3 of Notes to Financial Statements.

Residential real estate loans modified under specified loss mitigation programs prescribed by government guarantors have not been included in renegotiated loans because the loan guarantee remains in full force and, accordingly, the Company has not granted a concession with respect to the ultimate collection of the original loan balance. Such loans aggregated $199 million at June 30, 2019 and $179 million at each of June 30 and December 31, 2018.

Commercial loans and leases classified as nonaccrual were $224 million, $245 million, $234 million and $246 million at June 30, 2019, June 30, 2018, December 31, 2018 and March 31, 2019, respectively. Commercial real estate loans in nonaccrual status totaled $242 million, $166 million, $231 million and $232 million at June 30, 2019, June 30, 2018, December 31, 2018 and March 31, 2019, respectively. The increase in such loans at the three most recent quarter-ends compared with June 30, 2018 was due, in part, to the addition during the third quarter of 2018 of an office development project in Maryland. Nonaccrual commercial real estate loans included construction-related loans of $39 million at June 30, 2019, $13 million at June 30, 2018, $27 million at December 31, 2018 and $24 million at March 31, 2019.

Nonaccrual residential real estate loans aggregated $298 million at June 30, 2019, compared with $313 million at June 30, 2018, $318 million at December 31, 2018 and $295 million at March 31, 2019. Included in residential real estate loans classified as nonaccrual were limited documentation first mortgage loans of $88 million at June 30, 2019, $97 million at June 30, 2018 and $85 million at each of December 31, 2018 and March 31, 2019. Limited documentation first mortgage loans represent loans secured by residential real estate that at origination typically included some form of limited borrower documentation requirements as compared with more traditional loans. The Company no longer originates limited documentation loans. Residential real estate loans past due 90 days or more and accruing interest (excluding loans acquired at a discount) aggregated $322 million at June 30, 2019, compared with $200 million at each of June 30, 2018 and March 31, 2019 and $190 million at December 31, 2018. A substantial portion of such amounts related to guaranteed loans repurchased from government-related entities, including the previously disclosed repurchases of loans associated with servicing and sub-servicing that the Company added in 2019. Information about the location of nonaccrual and charged-off residential real estate loans as of and for the quarter ended June 30, 2019 is presented in the accompanying table.

Consumer loans in nonaccrual status amounted to $101 million at June 30, 2019, compared with $96 million at June 30, 2018, $110 million at December 31, 2018 and $109 million at March 31, 2019. Included in nonaccrual consumer loans at June 30, 2019, June 30, 2018, December 31, 2018 and March 31, 2019 were: automobile loans of $20 million, $20 million, $23 million and $21 million, respectively; recreational finance loans of $11 million, $7 million, $11 million and $11 million, respectively; and outstanding balances of home equity loans and lines of credit of $67 million, $67 million, $71 million and $69 million, respectively. Information about the location of nonaccrual and charged-off home equity loans and lines of credit as of and for the quarter ended June 30, 2019 is presented in the accompanying table.

Information about past due and nonaccrual loans as of June 30, 2019 and December 31, 2018 is also included in note 3 of Notes to Financial Statements.

SELECTED RESIDENTIAL REAL ESTATE-RELATED LOAN DATA

	June 30, 2019			Quarter Ended June 30, 2019	
		Nonaccrual		Net Charge-offs (Recoveries)	
	Outstanding Balances	Balances	Percent of Outstanding Balances	Balances	Percent of Average Outstanding Balances
	(Dollars in thousands)				
Residential mortgages:					
New York	$ 4,865,450	$ 70,970	1.46%	$ 216	.02%
Pennsylvania	1,180,874	16,591	1.40	(194)	(.07)
Maryland	1,089,026	9,249	.85	49	.02
New Jersey	3,400,669	53,332	1.57	734	.09
Other Mid-Atlantic (a)	983,547	8,263	.84	(29)	(.01)
Other	2,791,279	52,074	1.87	895	.13
Total	$ 14,310,845	$ 210,479	1.47%	$ 1,671	.05%
Residential construction loans:					
New York	$ 23,565	$ —	—%	$ —	—%
Pennsylvania	9,315	146	1.57	58	2.94
Maryland	7,050	237	3.36	—	—
New Jersey	10,165	—	—	—	—
Other Mid-Atlantic (a)	15,543	—	—	—	—
Other	4,126	60	1.45	(1)	(.05)
Total	$ 69,764	$ 443	.63%	$ 57	.37%
Limited documentation first mortgages:					
New York	$ 1,017,083	$ 33,640	3.31%	$ (45)	(.02%)
Pennsylvania	49,655	6,035	12.15	3	.02
Maryland	27,625	2,401	8.69	(1)	(.01)
New Jersey	872,161	27,916	3.20	129	.06
Other Mid-Atlantic (a)	23,183	988	4.26	(1)	(.01)
Other	323,421	16,571	5.12	(64)	(.08)
Total	$ 2,313,128	$ 87,551	3.78%	$ 21	—%
First lien home equity loans and lines of credit:					
New York	$ 1,155,754	$ 14,994	1.30%	$ 202	.07%
Pennsylvania	700,053	7,776	1.11	150	.08
Maryland	576,944	6,701	1.16	239	.17
New Jersey	65,506	960	1.47	14	.08
Other Mid-Atlantic (a)	194,701	3,311	1.70	1,443	2.94
Other	32,211	1,160	3.60	20	.28
Total	$ 2,725,169	$ 34,902	1.28%	$ 2,068	.30%
Junior lien home equity loans and lines of credit:					
New York	$ 713,170	$ 16,022	2.25%	$ 76	.04%
Pennsylvania	265,596	3,588	1.35	(34)	(.05)
Maryland	561,226	7,505	1.34	(541)	(.38)
New Jersey	101,182	1,129	1.12	(3)	(.01)
Other Mid-Atlantic (a)	249,429	2,095	.84	(91)	(.14)
Other	42,146	1,216	2.89	(43)	(.41)
Total	$ 1,932,749	$ 31,555	1.63%	$ (636)	(.13%)
Limited documentation junior lien:					
New York	$ 582	$ —	—%	$ (2)	(1.25%)
Pennsylvania	270	—	—	—	—
Maryland	1,204	51	4.24	—	—
New Jersey	377	171	45.36	—	—
Other Mid-Atlantic (a)	542	33	6.09	—	—
Other	3,206	215	6.71	43	5.26
Total	$ 6,181	$ 470	7.60%	$ 41	2.61%

(a) Includes Delaware, Virginia, West Virginia and the District of Columbia.

Real estate and other foreclosed assets totaled $73 million at June 30, 2019, compared with $98 million at June 30, 2018, $78 million at December 31, 2018 and $81 million at March 31, 2019. Net gains or losses associated with real estate and other foreclosed assets were not material during the three-months ended June 30, 2019, June 30, 2018 or March 31, 2019. At June 30, 2019, the Company's holdings of residential real estate-related properties comprised approximately 99% of foreclosed assets.

A comparative summary of nonperforming assets and certain past due, renegotiated and impaired loan data and credit quality ratios is presented in the accompanying table.

NONPERFORMING ASSET AND PAST DUE, RENOGIATED AND IMPAIRED LOAN DATA

	2019 Quarters		2018 Quarters		
	Second	First	Fourth	Third	Second
	(Dollars in thousands)				
Nonaccrual loans	$ 865,384	881,611	893,608	870,832	819,984
Real estate and other foreclosed assets	72,907	81,335	78,375	87,333	98,062
Total nonperforming assets	$ 938,291	962,946	971,983	958,165	918,046
Accruing loans past due 90 days or more(a)	$ 348,725	244,257	222,527	254,360	223,026
Government guaranteed loans included in totals above:					
Nonaccrual loans	$ 36,765	35,481	34,667	33,570	34,870
Accruing loans past due 90 days or more	320,305	194,510	192,443	195,450	202,394
Renegotiated loans	$ 254,332	267,952	245,367	242,892	242,528
Acquired accruing loans past due 90 days or more(b)	$ 43,079	43,995	39,750	44,223	47,405
Purchased impaired loans(c):					
Outstanding customer balance	$ 473,834	495,163	529,520	572,979	606,683
Carrying amount	263,025	278,783	303,305	325,980	352,465
Nonaccrual loans to total loans and leases, net of unearned discount	.96%	.99%	1.01%	1.00%	.93%
Nonperforming assets to total net loans and leases and real estate and other foreclosed assets	1.04%	1.09%	1.10%	1.10%	1.04%
Accruing loans past due 90 days or more(a) to total loans and leases, net of unearned discount	.39%	.28%	.25%	.29%	.25%

(a) *Excludes loans acquired at a discount. Predominantly residential real estate loans.*

(b) *Loans acquired at a discount that were recorded at fair value at acquisition date. This category does not include purchased impaired loans that are presented separately.*

(c) *Accruing loans acquired at a discount that were impaired at acquisition date and recorded at fair value.*

Management determined the allowance for credit losses by performing ongoing evaluations of the loan and lease portfolio, including such factors as the differing economic risks associated with each loan category, the financial condition of specific borrowers, the economic environment in which borrowers operate, the level of delinquent loans, the value of any collateral and, where applicable, the existence of any guarantees or indemnifications. Management evaluated the impact of changes in interest rates and overall economic conditions on the ability of borrowers to meet repayment obligations when quantifying the Company's exposure to credit losses and the allowance for such losses as of each reporting date. Factors also considered by management when performing its assessment, in addition to general economic conditions and the other factors described above, included, but were not limited to: (i) the impact of real estate values on the Company's portfolio of loans secured by commercial and residential real estate; (ii) the concentrations of commercial real estate loans in the Company's loan portfolio; (iii) the amount of commercial and industrial loans to businesses in areas of New York State outside of the New York City metropolitan area and in central Pennsylvania that have historically experienced less economic growth and vitality than the vast majority of other regions of the country; (iv) the expected repayment performance associated with the Company's first and second lien loans secured by residential real estate; and (v) the size of the

Company's portfolio of loans to individual consumers, which historically have experienced higher net charge-offs as a percentage of loans outstanding than other loan types. The level of the allowance is adjusted based on the results of management's analysis.

Management cautiously and conservatively evaluated the allowance for credit losses as of June 30, 2019 in light of: (i) residential real estate values and the level of delinquencies of loans secured by residential real estate; (ii) economic conditions in the markets served by the Company; (iii) slower growth in private sector employment in upstate New York and central Pennsylvania than in other regions served by the Company and nationally; (iv) the significant subjectivity involved in commercial real estate valuations; and (v) the amount of loan growth experienced by the Company. While there has been general improvement in economic conditions, concerns continue to exist about the strength and sustainability of such improvements; the volatile nature of global commodity and export markets, including the impact international economic conditions could have on the U.S. economy; Federal Reserve positioning of monetary policy; and continued stagnant population growth in the upstate New York and central Pennsylvania regions (approximately 53% of the Company's loans and leases are to customers in New York State and Pennsylvania).

The Company utilizes a loan grading system to differentiate risk amongst its commercial loans and commercial real estate loans. Loans with a lower expectation of default are assigned one of ten possible "pass" loan grades and are generally ascribed lower loss factors when determining the allowance for credit losses. Loans with an elevated level of credit risk are classified as "criticized" and are ascribed a higher loss factor when determining the allowance for credit losses. Criticized loans may be classified as "nonaccrual" if the Company no longer expects to collect all amounts according to the contractual terms of the loan agreement or the loan is delinquent 90 days or more. Criticized commercial loans and commercial real estate loans totaled $2.8 billion at June 30, 2019, compared with $2.2 billion at June 30, 2018, $2.7 billion at December 31, 2018 and $3.0 billion at March 31, 2019. The increase in criticized loans from June 30, 2018 to December 31, 2018 reflected loans to three customers each operating in different industries and geographic regions, that were added to this classification in the fourth quarter of 2018. The higher level of criticized loans at March 31, 2019 as compared with December 31, 2018 reflected, in part, the addition of outstanding loan balances to a wholesale distributor and a commercial real estate construction development company. The decline in criticized loans from March 31, 2019 to June 30, 2019 reflects paydowns and upgrades to such loans (largely commercial real estate loans) resulting from an improvement in the borrower's financial condition. Given payment performance, amount of supporting collateral, and, in certain instances, the existence of loan guarantees, the Company still expects to collect the full outstanding principal balance on most criticized loans.

Loan officers in different geographic locations with the support of the Company's credit department personnel continuously review and reassign loan grades based on their detailed knowledge of individual borrowers and their judgment of the impact on such borrowers resulting from changing conditions in their respective regions. At least annually, updated financial information is obtained from commercial borrowers associated with pass grade loans and additional analysis is performed. On a quarterly basis, the Company's centralized credit department reviews all criticized commercial loans and commercial real estate loans greater than $1 million to determine the appropriateness of the assigned loan grade, including whether the loan should be reported as accruing or nonaccruing. For criticized nonaccrual loans, additional meetings are held with loan officers and their managers, workout specialists and senior management to discuss each of the relationships. In analyzing criticized loans, borrower-specific information is reviewed, including operating results, future cash flows, recent developments and the borrower's outlook, and other pertinent data. The timing and extent of potential losses, considering collateral valuation and other factors, and the Company's potential courses of action are contemplated. To the extent that these loans are collateral-dependent, they are evaluated based on the fair value of the loan's collateral as estimated at or near the financial statement date. As the quality of a loan deteriorates to the point of classifying the loan as "criticized," the process of obtaining updated collateral valuation information is usually initiated, unless it is not considered warranted given factors such as the relative size of the loan, the characteristics of the collateral or the age of the last valuation. In those cases where current appraisals may not yet be available, prior appraisals are utilized with adjustments, as deemed necessary, for estimates of subsequent declines in value as determined by line of business and/or loan workout personnel in the respective geographic regions. Those adjustments are reviewed and

assessed for reasonableness by the Company's credit department. Accordingly, for real estate collateral securing larger commercial loans and commercial real estate loans, estimated collateral values are based on current appraisals and estimates of value. For non-real estate loans, collateral is assigned a discounted estimated liquidation value and, depending on the nature of the collateral, is verified through field exams or other procedures. In assessing collateral, real estate and non-real estate values are reduced by an estimate of selling costs.

With regard to residential real estate loans, the Company's loss identification and estimation techniques make reference to loan performance and house price data in specific areas of the country where collateral securing the Company's residential real estate loans is located. For residential real estate-related loans, including home equity loans and lines of credit, the excess of the loan balance over the net realizable value of the property collateralizing the loan is charged-off when the loan becomes 150 days delinquent. That charge-off is based on recent indications of value from external parties that are generally obtained shortly after a loan becomes nonaccrual. Loans to consumers that file for bankruptcy are generally charged off to estimated net collateral value shortly after the Company is notified of such filings. At June 30, 2019, approximately 58% of the Company's home equity portfolio consisted of first lien loans and lines of credit. Of the remaining junior lien loans in the portfolio, approximately 62% (or approximately 25% of the aggregate home equity portfolio) consisted of junior lien loans that were behind a first lien mortgage loan that was not owned or serviced by the Company. To the extent known by the Company, if a senior lien loan would be on nonaccrual status because of payment delinquency, even if such senior lien loan was not owned by the Company, the junior lien loan or line that is owned by the Company is placed on nonaccrual status. At June 30, 2019, the balance of junior lien loans and lines that were in nonaccrual status solely as a result of first lien loan performance was $5 million, compared with $8 million at each of June 30, 2018 and March 31, 2019 and $10 million at December 31, 2018. In monitoring the credit quality of its home equity portfolio for purposes of determining the allowance for credit losses, the Company reviews delinquency and nonaccrual information and considers recent charge-off experience. When evaluating individual home equity loans and lines of credit for charge off and for purposes of estimating incurred losses in determining the allowance for credit losses, the Company gives consideration to the required repayment of any first lien positions related to collateral property. Home equity line of credit terms vary but such lines are generally originated with an open draw period of ten years followed by an amortization period of up to twenty years. At June 30, 2019, approximately 82% of all outstanding balances of home equity lines of credit related to lines that were still in the draw period, the weighted-average remaining draw periods were approximately five years, and approximately 19% were making contractually allowed payments that do not include any repayment of principal.

Factors that influence the Company's credit loss experience include overall economic conditions affecting businesses and consumers, generally, but also residential and commercial real estate valuations, in particular, given the size of the Company's real estate loan portfolios. Commercial real estate valuations can be highly subjective, as they are based upon many assumptions. Such valuations can be significantly affected over relatively short periods of time by changes in business climate, economic conditions, interest rates and, in many cases, the results of operations of businesses and other occupants of the real property. Similarly, residential real estate valuations can be impacted by housing trends, the availability of financing at reasonable interest rates, and general economic conditions affecting consumers.

In determining the allowance for credit losses, the Company estimates losses attributable to specific troubled credits identified through both normal and targeted credit review processes and also estimates losses inherent in other loans and leases. In quantifying incurred losses, the Company considers the factors and uses the techniques described herein and in note 3 of Notes to Financial Statements. For purposes of determining the level of the allowance for credit losses, the Company segments its loan and lease portfolio by loan type. The amount of specific loss components in the Company's loan and lease portfolios is determined through a loan-by-loan analysis of commercial loans and commercial real estate loans in nonaccrual status. Measurement of the specific loss components is typically based on expected future cash flows, collateral values or other factors that may impact the borrower's ability to pay. Losses associated with residential real estate loans and consumer loans are generally determined by reference to recent charge-off history and are evaluated (and adjusted if deemed appropriate) through consideration of other factors including near-term forecasted loss estimates developed by the Company's credit department. These forecasts give consideration to overall borrower repayment performance and current geographic

region changes in collateral values using third party published historical price indices or automated valuation methodologies. With regard to collateral values, the realizability of such values by the Company contemplates repayment of any first lien position prior to recovering amounts on a junior lien position. Approximately 42% of the Company's home equity portfolio consists of junior lien loans and lines of credit. Except for consumer loans and residential real estate loans that are considered smaller balance homogeneous loans and are evaluated collectively and loans obtained at a discount in acquisition transactions, the Company considers a loan to be impaired when, based on current information and events, it is probable that the Company will be unable to collect all amounts according to the contractual terms of the loan agreement or the loan is delinquent 90 days or more and has been placed in nonaccrual status. Those impaired loans are evaluated for specific loss components. Modified loans, including smaller balance homogenous loans, that are considered to be troubled debt restructurings are evaluated for impairment giving consideration to the impact of the modified loan terms on the present value of the loan's expected cash flows. Loans less than 90 days delinquent are deemed to have a minimal delay in payment and are generally not considered to be impaired. For loans acquired at a discount, the impact of estimated future credit losses represents the predominant difference between contractually required payments and the cash flows expected to be collected. Subsequent decreases to those expected cash flows require the Company to evaluate the need for an additional allowance for credit losses and could lead to charge-offs of acquired loan balances. Additional information regarding the Company's process for determining the allowance for credit losses is included in note 3 of Notes to Financial Statements.

Management believes that the allowance for credit losses at June 30, 2019 appropriately reflected credit losses inherent in the portfolio as of that date. The allowance for credit losses totaled $1.03 billion at June 30, 2019 and $1.02 billion at each of June 30, 2018 and December 31, 2018. As a percentage of loans and leases outstanding, the allowance was 1.15% at each of June 30, 2019 and December 31, 2018 and 1.16% at June 30, 2018. The level of the allowance reflects management's evaluation of the loan and lease portfolio using the methodology and considering the factors as described herein. Should the various credit factors considered by management in establishing the allowance for credit losses change and should management's assessment of losses inherent in the loan portfolio also change, the level of the allowance as a percentage of loans could increase or decrease in future periods. The ratio of the allowance for credit losses to nonaccrual loans was 119% at June 30, 2019, 124% at June 30, 2018 and 114% at December 31, 2018. Given the Company's general position as a secured lender and its practice of charging-off loan balances when collection is deemed doubtful, that ratio and changes in that ratio are generally not an indicative measure of the adequacy of the Company's allowance for credit losses, nor does management rely upon that ratio in assessing the adequacy of the Company's allowance for credit losses. The level of the allowance reflects management's evaluation of the loan and lease portfolio as of each respective date.

Other Income

Other income totaled $512 million in the second quarter of 2019, compared with $457 million in the corresponding 2018 quarter and $501 million in the first quarter of 2019. The recent quarter's improvement as compared with the second quarter of 2018 and the first quarter of 2019 reflected higher mortgage banking revenues, trading account and foreign exchange gains and trust income. As compared with the first quarter of 2019, the recent quarter also reflected higher letter of credit and credit-related fees, while the first quarter results included income from BLG of $37 million.

Mortgage banking revenues were $107 million in the recent quarter, compared with $92 million in the second quarter of 2018 and $95 million in the initial quarter of 2019. Mortgage banking revenues are comprised of both residential and commercial mortgage banking activities. The Company's involvement in commercial mortgage banking activities includes the origination, sales and servicing of loans under the multi-family loan programs of Fannie Mae, Freddie Mac and the U.S. Department of Housing and Urban Development.

Residential mortgage banking revenues, consisting of realized gains from sales of residential real estate loans and loan servicing rights, unrealized gains and losses on residential real estate loans held for sale and related commitments, residential real estate loan servicing fees, and other residential real estate loan-related fees and income, were $72 million in the second quarter of 2019, compared with $61 million in the year-earlier quarter and

$66 million in 2019's first quarter. The higher revenues in the recent quarter as compared with the prior quarters resulted largely from increased servicing income.

New commitments to originate residential real estate loans to be sold were approximately $723 million in the recent quarter, compared with $644 million in the second quarter of 2018 and $422 million in the initial 2019 quarter. Realized gains from sales of residential real estate loans and loan servicing rights and recognized net unrealized gains or losses attributable to residential real estate loans held for sale, commitments to originate loans for sale and commitments to sell loans totaled to gains of $13 million in the second quarter of 2019, $12 million in the year-earlier quarter and $10 million in the first quarter of 2019.

Loans held for sale that were secured by residential real estate aggregated $294 million at June 30, 2019, $283 million at June 30, 2018 and $205 million at December 31, 2018. Commitments to sell residential real estate loans and commitments to originate residential real estate loans for sale at pre-determined rates totaled $626 million and $473 million, respectively, at June 30, 2019, compared with $532 million and $361 million, respectively, at June 30, 2018 and $364 million and $245 million, respectively, at December 31, 2018. Net recognized unrealized gains on residential real estate loans held for sale, commitments to sell loans, and commitments to originate loans for sale were $9 million and $11 million at June 30, 2019 and June 30, 2018, respectively, compared with $7 million at December 31, 2018. Changes in such net unrealized gains or losses are recorded in mortgage banking revenues and resulted in net increases in revenues of $2 million in the recent quarter, $3 million in the second quarter of 2018 and $1 million in the first quarter of 2019.

Revenues from servicing residential real estate loans for others were $59 million in the quarter ended June 30, 2019, compared with $49 million and $56 million during the quarters ended June 30, 2018 and March 31, 2019, respectively. Residential real estate loans serviced for others totaled $102.9 billion at June 30, 2019, $76.0 billion at June 30, 2018, $79.1 billion at December 31, 2018 and $90.1 billion at March 31, 2019. On January 31, 2019, the Company purchased servicing rights for residential real estate loans that had outstanding principal balances of $13.1 billion. The purchase price of such servicing rights was approximately $145 million. Servicing revenues associated with that purchase realized in the second and first quarters of 2019 totaled $11 million and $8 million, respectively. Capitalized residential mortgage servicing assets aggregated $245 million at June 30, 2019 (net of a $9 million valuation allowance), $118 million at June 30, 2018, $121 million at December 31, 2018 and $260 million at March 31, 2019. A provision for impairment of capitalized residential mortgage servicing rights of $9 million was recorded in the recent quarter, resulting from changes in the estimated fair value of capitalized mortgage servicing rights that reflected the impact of lower interest rates on the expected rate of residential mortgage loan prepayments. Reflected in residential real estate loans serviced for others were loans sub-serviced for others of $68.7 billion, $53.5 billion, $56.8 billion and $54.9 billion at June 30, 2019, June 30, 2018, December 31, 2018 and March 31, 2019, respectively. Revenues earned for sub-servicing loans totaled $29 million for the three months ended June 30, 2019, compared with $28 million for the similar 2018 period and first quarter of 2019. The Company added approximately $7.9 billion to its residential real estate loan sub-servicing portfolio on April 2, 2019. In addition, on June 4, 2019, an additional $8.7 billion of residential real estate loans were added to the Company's sub-servicing portfolio. The contractual servicing rights associated with loans sub-serviced by the Company were predominantly held by affiliates of BLG. Information about the Company's relationship with BLG and its affiliates is included in note 15 of Notes to Financial Statements.

Commercial mortgage banking revenues totaled $35 million in the recent quarter, compared with $31 million and $29 million in the second quarter of 2018 and the first quarter of 2019, respectively. Included in such amounts were revenues from loan origination and sales activities of $21 million in the second quarter of 2019, $17 million in the year-earlier quarter and $15 million in the first quarter of 2019. Commercial real estate loans originated for sale to other investors were approximately $1.1 billion in the recent quarter, compared with $1.3 billion in the second quarter of 2018 and $777 million in the initial 2019 quarter. Loan servicing revenues totaled $14 million in each of the second quarters of 2019 and 2018 and in the first quarter of 2019. Capitalized commercial mortgage servicing assets were $117 million and $110 million at June 30, 2019 and June 30, 2018, respectively, and $115 million at December 31, 2018. Commercial real estate loans serviced for other investors totaled $19.6 billion at June 30, 2019, $16.5 billion a year earlier and $18.2 billion at December 31, 2018 and included $3.6 billion, $3.3 billion and $3.4

billion, respectively, of loan balances for which investors had recourse to the Company if such balances are ultimately uncollectible. Commitments to sell commercial real estate loans and commitments to originate commercial real estate loans for sale were $751 million and $247 million, respectively, at June 30, 2019, $1.2 billion and $324 million, respectively, at June 30, 2018 and $577 million and $229 million, respectively, at December 31, 2018. Commercial real estate loans held for sale at June 30, 2019, June 30, 2018 and December 31, 2018 were $504 million, $868 million and $347 million, respectively. The higher balance at June 30, 2018 reflected loans originated later in 2018's second quarter that had not been delivered to investors as of that date.

Service charges on deposit accounts were $108 million and $107 million in the second quarters of 2019 and 2018, respectively, and $103 million in the initial quarter of 2019. The increase in such service charges in the recent quarter as compared with the immediately preceding quarter resulted from higher consumer service charges, largely fees associated with debit cards and insufficient funds.

Trust income includes fees related to two significant businesses. The Institutional Client Services ("ICS") business provides a variety of trustee, agency, investment management and administrative services for corporations and institutions, investment bankers, corporate tax, finance and legal executives, and other institutional clients who: (i) use capital markets financing structures; (ii) use independent trustees to hold retirement plan and other assets; and (iii) need investment and cash management services. The Wealth Advisory Services ("WAS") business helps high net worth clients grow their wealth, protect it, and transfer it to their heirs. A comprehensive array of wealth management services are offered, including asset management, fiduciary services and family office services. Trust income aggregated $144 million in the second quarter of 2019, compared with $138 million in the year-earlier quarter and $133 million in the first quarter of 2019. Revenues associated with the ICS business were approximately $77 million, $70 million and $71 million during the quarters ended June 30, 2019, June 30, 2018 and March 31, 2019, respectively. The higher revenues in the most recent quarter reflect the impact of sales activities and higher retirement services income from growth in collective fund balances. Revenues attributable to WAS totaled approximately $60 million, $62 million and $55 million for the three-month periods ended June 30, 2019, June 30, 2018 and March 31, 2019, respectively. The higher revenues in the recent quarter as compared with the initial 2019 quarter reflected annual tax service fees earned for assisting customers with their tax filings. Trust assets under management were $97.6 billion, $83.4 billion and $92.9 billion at June 30, 2019, June 30, 2018 and March 31, 2019, respectively. Trust assets under management include the Company's proprietary mutual funds' assets of $11.8 billion, $9.9 billion and $11.3 billion at June 30, 2019, June 30, 2018 and March 31, 2019, respectively. Additional trust income from investment management activities was $7 million during the quarters ended June 30, 2019 and March 31, 2019, compared with $6 million during the quarter ended June 30, 2018, and is predominantly comprised of fees earned from retail customer investment accounts. The Company's trust income from the previously noted affiliated asset manager was not material during any of the quarters referenced herein. In July 2019, the Company entered into an agreement to sell its non-controlling interest in that entity. Assets managed by the affiliated manager totaled $3.8 billion at June 30, 2019, $6.0 billion at June 30, 2018 and $4.2 billion at December 31, 2018.

Brokerage services income, which includes revenues from the sale of mutual funds and annuities and securities brokerage fees, totaled $12 million in each of the first and second quarters of 2019, compared with $13 million in the second quarter of 2018. Trading account and foreign exchange activity resulted in gains of $18 million and $5 million during the quarters ended June 30, 2019 and 2018, respectively, compared with gains of $11 million in the initial 2019 quarter. The increases from the year-earlier quarter and the immediately preceding quarter were due to increased activity related to interest rate swap transactions executed on behalf of commercial customers and improved valuations of interest rate floor agreements that are not accounted for as hedging instruments but, nevertheless, provide the Company with protection against the possibility of future declines in interest rates on earnings assets. Information about the notional amount of interest rate, foreign exchange and other contracts entered into by the Company for trading account purposes is included in note 10 of Notes to Financial Statements and herein under the heading "Taxable-equivalent Net Interest Income."

The Company recognized net gains on investment securities of $9 million in the recent quarter, $2 million in the second quarter of 2018 and $12 million in the first quarter of 2019, consisting predominantly of unrealized gains on investments in Fannie Mae and Freddie Mac preferred stock.

Other revenues from operations were $113 million in the second quarter of 2019, compared with $100 million in the corresponding 2018 period and $134 million in the initial quarter of 2019. The recent quarter's improvement as compared with the year-earlier quarter reflects higher letter of credit and other credit-related fees, including loan syndication fees. The recent quarter's decline as compared with the first quarter of 2019 resulted from $37 million of income received from BLG in the preceding quarter partially offset by higher letter of credit and other credit-related fees in the recent quarter. Included in other revenues from operations were the following significant components. Letter of credit and other credit-related fees aggregated $29 million in the recent quarter, compared with $25 million in the year-earlier quarter and $24 million in the initial quarter of 2019. Revenues from merchant discount and credit card fees were $31 million in 2019's second quarter, compared with $29 million in 2018's second quarter and $27 million in the first quarter of 2019. Tax-exempt income from bank owned life insurance, which includes increases in the cash surrender value of life insurance policies and benefits received, totaled $14 million in the second 2019 quarter and $12 million in each of the second quarter of 2018 and the first quarter of 2019. Insurance-related sales commissions and other revenues totaled $12 million in the recently completed quarter, compared with $11 million and $14 million in 2018's second quarter and the initial 2019 quarter, respectively.

Other income aggregated $1.01 billion during the first six months of 2019, compared with $916 million in the corresponding 2018 period. That improvement reflects higher mortgage banking revenues, trading account and foreign exchange gains, gains on bank investment securities, trust income and income from BLG.

Mortgage banking revenues totaled $203 million during the first six months of 2019, compared with $180 million during the similar period in 2018. Residential mortgage banking revenues aggregated $138 million and $123 million during the six-month periods ended June 30, 2019 and 2018, respectively. New commitments to originate residential real estate loans to be sold aggregated $1.1 billion and $1.3 billion in the first half of 2019 and 2018, respectively. Realized gains from sales of residential real estate loans and loan servicing rights and recognized unrealized gains and losses on residential real estate loans held for sale, commitments to originate loans for sale and commitments to sell loans aggregated to gains of $23 million and $24 million in the six-month periods ended June 30, 2019 and 2018, respectively. Revenues from servicing residential real estate loans for others were $115 million in the first half of 2019 and $99 million in the corresponding 2018 period. Included in servicing revenues were sub-servicing revenues aggregating $57 million and $58 million in the first six months of 2019 and 2018, respectively. For the six months ended June 30, commercial mortgage banking revenues were $65 million and $57 million in 2019 and 2018, respectively. That increase resulted predominantly from revenues associated with loan origination activities. Commercial real estate loans originated for sale to other investors totaled $1.8 billion during both six-month periods ended June 30, 2019 and 2018.

Service charges on deposit accounts aggregated $211 million during the first half of 2019, compared with $212 million in the year-earlier period. Trust income totaled $277 million and $269 million during the first six months of 2019 and 2018, respectively. The increase in trust income in 2019 as compared with 2018 was largely due to higher revenues from the ICS business, reflecting both sales activities and higher retirement services income from growth in collective fund balances, partially offset by lower revenues from the WAS business reflecting, in part, lower recurring fees due to product mix and competitive factors. Brokerage services income totaled $25 million in the first half of 2019, compared with $26 million in the six-month period ended June 30, 2018. Trading account and foreign exchange activity resulted in gains of $29 million and $10 million in the first six months of 2019 and 2018, respectively. The significantly higher gains in the 2019 period were predominantly due to valuation changes on interest rate floor agreements and higher income associated with increased activity related to interest rate swap agreements executed on behalf of commercial customers.

Other revenues from operations totaled $247 million in the first half of 2019, compared with $227 million in the year-earlier period. Other revenues from operations include the following significant components. Letter of credit and other credit-related fees aggregated $53 million and $54 million in 2019 and 2018, respectively. Reflecting higher death benefits proceeds, income from bank owned life insurance totaled $26 million in the first six months of 2019, compared with $23 million in the corresponding 2018 period. Merchant discount and credit card fees were $58 million and $57 million in the first six months of 2019 and 2018, respectively. Insurance-related commissions and

other revenues aggregated $26 million and $25 million in 2019 and 2018, respectively. M&T's investment in BLG resulted in income of $37 million in the first six months of 2019 and $23 million in the similar 2018 period.

Other Expense

Other expense totaled $873 million in the second quarter of 2019, compared with $777 million in the year-earlier quarter and $894 million in the first quarter of 2019. Included in those amounts are expenses considered to be "nonoperating" in nature consisting of amortization of core deposit and other intangible assets of $5 million in each of the second and first quarters of 2019, compared with $6 million in the second quarter of 2018. Exclusive of those nonoperating expenses, noninterest operating expenses were $868 million in the most recent quarter, compared with $770 million in the similar period of 2018 and $889 million in the initial quarter of 2019. A $48 million charge was recorded in the recent quarter to reduce the carrying value of an investment in an asset manager accounted for using the equity method of accounting to its estimated net realizable value. In addition, higher costs for salaries and employee benefits also contributed to the rise in noninterest operating expenses in the recent quarter as compared with the year-earlier quarter. As compared with the first quarter of 2019, the most significant factors contributing to the decline in noninterest operating expenses in the recent quarter were a $50 million addition to the reserve for legal matters in 2019's initial quarter and seasonally higher stock-based compensation and employee benefits expenses in that quarter offset, in part, by the $48 million charge in the recently completed quarter related to the investment in an asset manager.

Other expense for the first half of 2019 totaled $1.77 billion, compared with $1.71 billion in the year-earlier period. Included in those amounts are expenses considered to be "nonoperating" in nature consisting of amortization of core deposit and other intangible assets of $10 million and $13 million in the six-month periods ended June 30, 2019 and 2018, respectively. Exclusive of those nonoperating expenses, noninterest operating expenses for the first half of 2019 were $1.76 billion, compared with $1.70 billion in the first six months of 2018. Higher salaries and employee benefits expenses and the $48 million charge associated with the asset manager investment were largely offset by a decrease of $85 million in additions to the reserve for legal matters.

Salaries and employee benefits expense aggregated $456 million in the second quarter of 2019, compared with $419 million in the year-earlier quarter and $499 million in the initial quarter of 2019. During the first six months of 2019 and 2018, salaries and employee benefits expense aggregated $955 million and $882 million, respectively. The higher salaries and employee benefits expenses for the three-month and six-month periods ended June 30, 2019 as compared with the corresponding 2018 periods largely reflect the impact of higher employment levels, merit and other increases for employees, higher incentive-based compensation and increased medical benefit costs. The higher employment levels include staff additions to accommodate the residential mortgage servicing and sub-servicing acquisitions that were previously noted. The decrease in salaries and employee benefits expense in the recent quarter as compared with the first quarter of 2019 was attributable to seasonally higher stock-based compensation, medical plan costs, payroll-related taxes, unemployment insurance and the Company's contributions for retirement savings plan benefits related to annual incentive compensation payments in the first quarter of 2019. The Company, in accordance with GAAP, has accelerated the recognition of compensation costs for stock-based awards granted to retirement-eligible employees and employees who will become retirement-eligible prior to full vesting of the award. As a result, stock-based compensation expense during the first quarter of 2019 included $27 million that would have been recognized over the normal vesting period if not for the accelerated recognition provisions of GAAP. That acceleration had no effect on the value of stock-based compensation awarded to employees. Salaries and employee benefits expense included stock-based compensation of $12 million and $11 million in the three-month periods ended June 30, 2019 and June 30, 2018, respectively, $40 million in the three-month period ended March 31, 2019, and $53 million and $45 million during the six-month periods ended June 20, 2019 and 2018, respectively. The number of full-time equivalent employees was 17,516 at June 30, 2019, compared with 16,760 and 17,080 at June 30, 2018 and March 31, 2019, respectively.

Excluding the nonoperating expense items described earlier from each quarter, nonpersonnel operating expenses were $412 million and $352 million in the quarters ended June 30, 2019 and June 30, 2018, respectively, and $390 million in the initial quarter of 2019. On that same basis, such expenses were $802 million and $815 million in the six-month periods ended June 30, 2019 and 2018, respectively. The higher level of nonpersonnel

operating expenses in the recent quarter compared with the second quarter of 2018 was predominantly attributable to the $48 million charge associated with the asset manager, the $9 million valuation reserve on residential mortgage servicing rights and higher equipment and net occupancy expenses, partially offset by lower FDIC assessments. As compared with the initial 2019 quarter, the recent quarter's $48 million charge, the valuation reserve on residential mortgage servicing rights and higher costs for professional services were largely offset by a $50 million first quarter 2019 addition to the reserve for legal matters. There were no valuation allowances related to residential mortgage servicing rights at June 30, 2018, December 31, 2018 and March 31, 2019. Additional information about the Company's capitalized residential mortgage loan servicing assets is presented herein under the heading "Other Income." The lower level of nonpersonnel operating expenses in the first six months of 2019 as compared with the similar 2018 period reflected lower additions to the reserve for legal matters of $85 million and decreased FDIC assessments, partially offset by the $48 million charge for the investment in an asset manager, higher equipment, net occupancy, outside data processing and software costs and the valuation reserve on residential mortgage servicing rights.

The efficiency ratio measures the relationship of noninterest operating expenses to revenues. The Company's efficiency ratio was 56.0% during the recent quarter, compared with 52.4% and 57.6% in the second quarter of 2018 and first quarter of 2019, respectively. The efficiency ratios for the six-month periods ended June 30, 2019 and 2018 were 56.8% and 58.2%, respectively. The calculation of the efficiency ratio is presented in Table 2.

Income Taxes

The provision for income taxes was $152 million in each of the second and first quarters of 2019, compared with $161 million in the second quarter of 2018. For the six-month periods ended June 30, 2019 and 2018, the provisions for income taxes were $304 million and $267 million, respectively. The effective tax rates were 24.3%, 24.7% and 23.9% for the quarters ended June 30, 2019, June 30, 2018 and March 31, 2019, respectively, and 24.1% and 24.0% for the six-month periods ended June 30, 2019 and 2018, respectively.

The effective tax rate is affected by the level of income earned that is exempt from tax relative to the overall level of pre-tax income, the level of income allocated to the various state and local jurisdictions where the Company operates, because tax rates differ among such jurisdictions, and the impact of any large discrete or infrequently occurring items. The Company's effective tax rate in future periods will also be affected by any change in income tax laws or regulations and interpretations of income tax regulations that differ from the Company's interpretations by any of various tax authorities that may examine tax returns filed by M&T or any of its subsidiaries.

Capital

Shareholders' equity was $15.7 billion at June 30, 2019, representing 12.91% of total assets, compared with $15.6 billion or 13.15% a year earlier and $15.5 billion or 12.87% at December 31, 2018. Included in shareholders' equity was preferred stock with financial statement carrying values of $1.2 billion at each of June 30, 2019, June 30, 2018 and December 31, 2018. On July 30, 2019, M&T issued 40,000 shares of Series G Perpetual Fixed-Rate Reset Non-cumulative Preferred Stock, par value $1.00 per share and liquidation preference of $10,000 per share. Through July 31, 2024 holders of the Series G preferred stock are entitled to receive, only when, as and if declared by M&T's Board of Directors, non-cumulative cash dividends at an annual rate of 5.0%, payable semiannually in arrears. Subsequent to July 31, 2024 holders will be entitled to receive, only when, as and if declared by M&T's Board of Directors, non-cumulative cash dividends at an annual rate of the five-year U.S. Treasury Rate plus 3.174%, payable semiannually in arrears. The Series G preferred stock may be redeemed at M&T's option, in whole or in part, on any dividend payment date on or after August 1, 2024 or, in whole but not in part, at any time within 90 days following a regulatory capital treatment event whereby the full liquidation value of the shares no longer qualifies as "additional Tier 1 capital." In addition, M&T expects to redeem the 230,000 shares issued and outstanding of the Series A and 151,500 shares issued and outstanding of the Series C Fixed Rate Cumulative Perpetual Preferred Stock, $1,000 liquidation preference per share on August 30, 2019, having received the approval of the Federal Reserve to redeem such shares after issuing the Series G preferred stock.

Reflecting the impact of repurchases of M&T's common stock, common shareholders' equity was $14.5 billion, or $107.73 per share, at June 30, 2019, compared with $14.3 billion, or $99.43 per share, a year earlier and $14.2 billion, or $102.69 per share, at December 31, 2018. Tangible equity per common share, which excludes goodwill and core deposit and other intangible assets and applicable deferred tax balances, was $73.29 at the end of the second quarter of 2019, compared with $67.29 a year earlier and $69.28 at December 31, 2018. The Company's ratio of tangible common equity to tangible assets was 8.41% at June 30, 2019, compared with 8.53% at June 30, 2018 and 8.31% at December 31, 2018. Reconciliations of total common shareholders' equity and tangible common equity and total assets and tangible assets as of each of those respective dates are presented in table 2.

Shareholders' equity reflects accumulated other comprehensive income or loss, which includes the net after-tax impact of unrealized gains or losses on investment securities classified as available for sale, unrealized losses on held-to-maturity securities for which an other-than-temporary impairment charge has been recognized, gains or losses associated with interest rate swap agreements designated as cash flow hedges, foreign currency translation adjustments and adjustments to reflect the funded status of defined benefit pension and other postretirement plans. Net unrealized gains on investment securities reflected in shareholders' equity, net of applicable tax effect, were $7 million, or $.05 per common share, at June 30, 2019, compared with net unrealized losses of $198 million, or $1.38 per common share, a year earlier and $148 million, or $1.06 per common share, at December 31, 2018. Changes in unrealized gains and losses on investment securities are predominantly reflective of the impact of changes in interest rates on the values of such securities. Information about unrealized gains and losses as of June 30, 2019 and December 31, 2018 is included in note 2 of Notes to Financial Statements.

Reflected in the carrying amount of available-for-sale investment securities at June 30, 2019 were pre-tax effect unrealized gains of $68 million on securities with an amortized cost of $3.9 billion and pre-tax effect unrealized losses of $47 million on securities with an amortized cost of $3.5 billion. Information concerning the Company's fair valuations of investment securities is provided in notes 2 and 12 of Notes to Financial Statements.

Each reporting period the Company reviews its investment securities for other-than-temporary impairment. For debt securities, the Company analyzes the creditworthiness of the issuer or reviews the credit performance of the underlying collateral supporting the bond. For debt securities backed by pools of loans, such as privately issued mortgage-backed securities, the Company estimates the cash flows of the underlying loan collateral using forward-looking assumptions for default rates, loss severities and prepayment speeds. Estimated collateral cash flows are then utilized to estimate bond-specific cash flows to determine the ultimate collectibility of the bond. If the present value of the cash flows indicates that the Company should not expect to recover the entire amortized cost basis of a bond or if the Company intends to sell the bond or it more likely than not will be required to sell the bond before recovery of its amortized cost basis, an other-than-temporary impairment loss is recognized. If an other-than-temporary impairment loss is deemed to have occurred, the investment security's cost basis is adjusted, as appropriate for the circumstances.

As of June 30, 2019, based on a review of each of the securities in the investment securities portfolio, the Company concluded that the declines in the values of any securities containing an unrealized loss were temporary and that any other-than-temporary impairment charges were not appropriate. As of June 30, 2019, the Company did not intend to sell nor is it anticipated that it would be required to sell any of its impaired securities, that is, where fair value is less than the cost basis of the security. The Company intends to continue to closely monitor the performance of its securities because changes in their underlying credit performance or other events could cause the cost basis of those securities to become other-than-temporarily impaired. However, because the unrealized losses on available-for-sale investment securities have generally already been reflected in the financial statement values for investment securities and shareholders' equity, any recognition of an other-than-temporary decline in value of those investment securities would not have a material effect on the Company's consolidated financial condition. Any other-than-temporary impairment charge related to held-to-maturity securities would result in reductions in the financial statement values for investment securities and shareholders' equity.

The Company assessed impairment losses on privately issued mortgage-backed securities in the held-to-maturity portfolio by performing internal modeling to estimate bond-specific cash flows considering recent performance of the mortgage loan collateral and utilizing assumptions about future defaults and loss severity. These

bond-specific cash flows also reflect the placement of the bond in the overall securitization structure and the remaining subordination levels. In total, at June 30, 2019 and December 31, 2018, the Company had in its held-to-maturity portfolio privately issued mortgage-backed securities with an amortized cost basis of $105 million and $113 million, respectively, and a fair value of $96 million and $103 million, respectively. At June 30, 2019, 82% of the mortgage-backed securities were in the most senior tranche of the securitization structure with 14% being independently rated as investment grade. The mortgage-backed securities are generally collateralized by residential and small-balance commercial real estate loans originated between 2004 and 2008 and had a weighted-average credit enhancement of 18% at June 30, 2019, calculated by dividing the remaining unpaid principal balance of bonds subordinate to the bonds owned by the Company plus any overcollateralization remaining in the securitization structure by the remaining unpaid principal balance of all bonds in the securitization structure. The weighted-average default percentage and loss severity assumptions utilized in the Company's internal modeling were 34% and 68% respectively. Given the securitization structure, some of the bonds held by the Company may defer interest payments in certain circumstances, but after considering the repayment structure and estimated future collateral cash flows of each individual senior and subordinate tranche bond, the Company has concluded that as of June 30, 2019, those privately issued mortgage-backed securities were not other-than-temporarily impaired. Nevertheless, it is possible that adverse changes in the estimated future performance of mortgage loan collateral underlying such securities could impact the Company's conclusions.

Adjustments to reflect the funded status of defined benefit pension and other postretirement plans, net of applicable tax effect, reduced accumulated other comprehensive income by $255 million or $1.90 per common share, at June 30, 2019, $290 million or $2.01 per common share, at June 30, 2018 and $261 million, or $1.89 per common share, at December 31, 2018.

In accordance with M&T's revised 2018 Capital Plan filed with the Federal Reserve, M&T repurchased 2,450,000 shares of its common stock for $402 million in the second quarter of 2019 and 4,600,000 shares for $768 million during the first half of 2019. M&T repurchased 2,608,376 common shares at a total cost of $475 million during the second quarter of 2018 and 6,391,658 shares for $1.2 billion during the first half of 2018.

During 2018, M&T's Board of Directors authorized increases in the quarterly common stock dividend to $.80 per common share in the second quarter from the previous rate of $.75 per common share and to $1.00 per common share in the third quarter. Cash dividends declared on M&T's common stock totaled $135 million in the recent quarter, compared with $116 million and $139 million during the quarters ended June 30, 2018 and March 31, 2019, respectively. Common stock dividends during the six-month periods ended June 30, 2019 and 2018 were $274 million and $228 million, respectively. Cash dividends declared on preferred stock aggregated $18 million in each of the second quarters of 2019 and 2018 and in the first quarter of 2018.

On June 27, 2019, M&T announced its 2019 Capital Plan, which covers the four-quarter period that began on July 1, 2019. The 2019 Capital Plan, which has been reviewed and approved by M&T's Board of Directors, reflects capital distributions within the amount that M&T can make over the specified period based on the prior approval of the Board of Governors of the Federal Reserve System. M&T's 2019 Capital Plan reflects net capital distributions of approximately $1.9 billion, which include common and preferred stock dividends as well as repurchases of M&T's common stock. M&T's Board of Directors may consider an increase in the common stock dividend, at its discretion, during the four-quarter period. All dividends are subject to declaration by M&T's Board of Directors. On July 17, 2019, M&T's Board of Directors authorized a new stock repurchase plan to repurchase up to $1.635 billion of shares of M&T's common stock subject to all applicable regulatory limitations. During July 2019, M&T repurchased 520,000 common shares for $85 million pursuant to that repurchase plan.

M&T and its subsidiary banks are required to comply with applicable capital adequacy standards established by the federal banking agencies. Pursuant to those regulations, the minimum capital ratios are as follows:

- 4.5% Common Equity Tier 1 (“CET1”) to risk-weighted assets (each as defined in the capital regulations);
- 6.0% Tier 1 capital (that is, CET1 plus Additional Tier 1 capital) to risk-weighted assets (each as defined in the capital regulations);
- 8.0% Total capital (that is, Tier 1 capital plus Tier 2 capital) to risk-weighted assets (each as defined in the capital regulations); and
- 4.0% Tier 1 capital to average consolidated assets as reported on consolidated financial statements (known as the “leverage ratio”), as defined in the capital regulations.

In addition, capital regulations require a “capital conservation buffer” of 2.5% composed entirely of CET1 on top of these minimum risk-weighted asset ratios.

The regulatory capital ratios of the Company and its bank subsidiaries, M&T Bank and Wilmington Trust, N.A., as of June 30, 2019 are presented in the accompanying table.

REGULATORY CAPITAL RATIOS
June 30, 2019

	M&T (Consolidated)	M&T Bank	Wilmington Trust, N.A.
Common equity Tier 1	9.84%	10.56%	62.25%
Tier 1 capital	11.06%	10.56%	62.25%
Total capital	13.33%	12.40%	62.44%
Tier 1 leverage	9.80%	9.37%	14.75%

The Company is subject to the comprehensive regulatory framework applicable to bank and financial holding companies and their subsidiaries, which includes regular examinations by a number of regulators. Regulation of financial institutions such as M&T and its subsidiaries is intended primarily for the protection of depositors, the Deposit Insurance Fund of the FDIC and the banking and financial system as a whole, and generally is not intended for the protection of shareholders, investors or creditors other than insured depositors. Changes in laws, regulations and regulatory policies applicable to the Company’s operations can increase or decrease the cost of doing business, limit or expand permissible activities or affect the competitive environment in which the Company operates, all of which could have a material effect on the business, financial condition or results of operations of the Company and in M&T’s ability to pay dividends. For additional information concerning this comprehensive regulatory framework, refer to Part I, Item 1 of M&T’s Form 10-K for the year ended December 31, 2018.

Segment Information

The Company's reportable segments have been determined based upon its internal profitability reporting system, which is organized by strategic business unit. Financial information about the Company's segments is presented in note 14 of Notes to Financial Statements. The reportable segments are Business Banking, Commercial Banking, Commercial Real Estate, Discretionary Portfolio, Residential Mortgage Banking and Retail Banking.

The Business Banking segment recorded net income of $42 million in the second quarter of 2019, compared with $43 million in each of the three-month periods ended June 30, 2018 and March 31, 2019. As compared with the year-earlier quarter, a $6 million rise in the provision for credit losses, due to higher net charge-offs and loan balances, was largely offset by a $4 million increase in net interest income, reflecting a 15 basis point widening of the net interest margin on deposits. As compared with the first quarter of 2019, the slight decline in net income in the recent quarter was attributable to a higher provision for credit losses, due to higher net charge-offs. Net income recorded by the Business Banking segment was $86 million in the first six months of 2019, compared with $81 million in the year-earlier period. That 6% improvement resulted from a $15 million rise in net interest income,

partially offset by a $6 million increase in the provision for credit losses, due to higher net charge-offs and loan balances, and higher centrally-allocated costs associated with data processing, risk management and other support services provided to the Business Banking segment. The increase in net interest income reflected a widening of the net interest margin on deposits of 32 basis points.

Net income earned by the Commercial Banking segment totaled $124 million during the quarter ended June 30, 2019, compared with $126 million in the year-earlier quarter and $132 million in the first quarter of 2019. The modest decline in net income as compared with the second quarter of 2018 reflected a $10 million increase in the provision for credit losses, due to higher net charge-offs and loan balances, partially offset by higher net interest income of $4 million. The higher net interest income resulted from growth in average outstanding loan balances of $1.4 billion and a widening of the net interest margin on deposits of 19 basis points, partially offset by lower average deposit balances of $1.4 billion. The recent quarter's 7% decline in net income as compared with the initial 2019 quarter was largely due to a $20 million increase in the provision for credit losses, predominantly due to higher net charge-offs and loan balances. Partially offsetting the higher provision were a $3 million increase in each of loan syndication fees and trading account and foreign exchange gains. The Commercial Banking segment contributed $256 million of net income in the first half of 2019, up from $252 million earned in the similar 2018 period. Contributing to that improvement were a $12 million rise in net interest income and a $5 million decrease in FDIC assessments. Those factors were offset by an $8 million rise in centrally-allocated costs associated with data processing, risk management and other support services provided to the Commercial Banking segment, $3 million decreases in each of loan syndication fees and service charges on deposit accounts, and a $3 million rise in personnel-related costs. The higher net interest income reflected higher average outstanding loan balances of $1.4 billion and a 41 basis point widening of the net interest margin on deposits, partially offset by lower average deposit balances of $1.8 billion.

The Commercial Real Estate segment contributed net income of $122 million in the recent quarter, compared with $113 million in the second quarter of 2018 and $117 million in the initial 2019 quarter. The improvement as compared with the second quarter of 2018 reflects: a $10 million increase in net interest income, driven largely by higher average outstanding loan balances of $884 million and a 5 basis point widening of the net interest margin on loans; higher mortgage banking revenues of $4 million, due largely to increased origination activities; a decline in FDIC assessments of $3 million; and a $3 million increase in trading account and foreign exchange gains. Partially offsetting those favorable factors were a $7 million rise in centrally-allocated costs associated with data processing, risk management and other support services provided to the Commercial Real Estate segment and a $4 million increase in the provision for credit losses. Contributing to the 4% improvement in the recent quarter's net income as compared with the first quarter of 2019 were higher mortgage banking revenues of $6 million, predominantly due to increased origination activities. Net income earned by the Commercial Real Estate segment totaled $239 million during the six-month period ended June 30, 2019, compared with $221 million in the corresponding 2018 period. The favorable factors contributing to that increase included: a $21 million rise in net interest income, reflecting higher average outstanding loan balances of $784 million and a 25 basis point widening of the net interest margin on deposits; higher mortgage banking revenues of $7 million, due largely to wider margins on loan originations; a $6 million decrease in FDIC assessments; and a $5 million increase in trading account and foreign exchange gains, resulting mainly from increased activity related to interest rate swap transactions executed on behalf of commercial customers. Those favorable factors were partially offset by a $13 million increase in centrally-allocated costs associated with data processing, risk management and other support services provided to the Commercial Real Estate segment, a $5 million increase in the provision for credit losses and higher personnel-related costs of $4 million.

Net income from the Discretionary Portfolio segment was $38 million in the recent quarter, compared with $29 million in the second quarter of 2018 and $39 million in the initial 2019 quarter. As compared with 2018's second quarter, the recent quarter's results reflected higher valuation gains associated with marketable equity securities of $7 million; higher trading account and foreign exchange gains of $7 million, due to valuation gains on interest rate contracts; a $6 million decrease in the provision for credit losses, primarily due to the favorable impact from the Company's allocation methodologies for the provision for credit losses associated with acquired loans; and a $3 million increase in revenues from bank owned life insurance. Partially offsetting those favorable factors was lower net interest income of $17 million that reflected a 13 basis point narrowing of the net interest margin on loans and

lower average outstanding loan and investment securities balances of $1.9 billion and $1.7 billion, respectively. The slight decline in net income in the recent quarter as compared with the immediately preceding quarter was attributable to a $7 million decrease in net interest income, reflecting a narrowing of the net interest margin on loans of 9 basis points, a $408 million decline in average outstanding loan balances and a $785 million decline in average investment securities balances, partially offset by higher trading account and foreign exchange gains of $3 million. Year-to-date net income recorded by this segment was $77 million in 2019 and $49 million in 2018. That 58% year-over-year increase was predominantly the result of higher valuation gains associated with marketable equity securities of $28 million, a $14 million decrease in the provision for credit losses, primarily due to the favorable impact from the Company's allocation methodologies for the provision for credit losses associated with acquired loans, a $10 million increase in trading account and foreign exchange gains due to valuation gains on interest rate contracts and higher bank owned life insurance income and lower FDIC assessments of $3 million each, offset, in part, by a $29 million decline in net interest income. That decline reflected lower average outstanding loan balances of $2.0 billion, a 12 basis point narrowing of the net interest margin on loans and lower average investment securities balances of $1.6 billion.

Net income from the Residential Mortgage Banking segment totaled $8 million during the quarter ended June 30, 2019, compared with $15 million in the year-earlier quarter and $13 million in the first quarter of 2019. As compared with the year-earlier period, a $9 million valuation allowance for capitalized mortgage servicing rights, higher servicing-related costs (including intersegment costs), and a $6 million increase in centrally-allocated expenses associated with support services provided to the Residential Mortgage Banking segment were partially offset by higher mortgage banking revenues of $11 million, predominantly associated with servicing residential real estate loans (including intersegment revenues). The decline in net income from the first quarter of 2019 reflected the $9 million valuation allowance for capitalized mortgage servicing rights, a $5 million rise in centrally-allocated costs for support services provided to this segment and higher personnel-related expenses of $3 million. Those unfavorable factors were partially offset by a $7 million increase in revenues associated with servicing residential real estate loans (including intersegment revenues) and mortgage origination and sales activities and a $4 million increase in net interest income that largely reflected a 14 basis point widening of the net interest margin on deposits and higher average deposit balances of $956 million. The Residential Mortgage Banking segment contributed net income of $21 million in the first six months of 2019, compared with $30 million in the corresponding 2018 period. A $10 million increase in servicing-related costs (including intersegment costs), the $9 million valuation allowance for capitalized servicing rights and a $7 million increase in centrally-allocated expenses in 2019 were partially offset by higher residential mortgage banking servicing revenues of $14 million as compared with the 2018 period.

Net income earned by the Retail Banking segment totaled $140 million in the second quarter of 2019, compared with $143 million in the year-earlier quarter and $145 million in the first quarter of 2019. The recent quarter decline as compared with the second quarter of 2018 reflected a $6 million rise in personnel-related costs, higher centrally-allocated expenses associated with support services provided to the Retail Banking segment of $6 million, and increased advertising and marketing expenses of $4 million. Those unfavorable factors were partially offset by a $14 million increase in net interest income, reflecting a 17 basis point widening of the net interest margin on deposits and higher average outstanding loan balances of $1.1 billion offset, in part, by lower average deposit balances of $1.4 billion. As compared with the immediately preceding quarter, higher centrally-allocated costs of $7 million in the recent quarter and a $5 million increase in advertising and marketing expenses, partially offset by a $4 million increase in service charges on deposit accounts, contributed to the decline in net income. Net income recorded by the Retail Banking segment totaled $286 million in the first half of 2019 and $266 million in 2018. The most significant factor contributing to that improvement was a $53 million increase in net interest income, reflecting a widening of the net interest margin on deposits of 32 basis points and higher average outstanding balances of loans of $975 million, offset, in part, by lower average outstanding deposit balances of $1.5 billion. That increase was partially offset by $11 million of higher personnel-related costs, an $8 million increase in professional services and other operating expenses, increased advertising and marketing expenses of $6 million and a $4 million rise in centrally-allocated costs for support services provided to the Retail Banking segment.

The "All Other" category reflects other activities of the Company that are not directly attributable to the reported segments. Reflected in this category are the amortization of core deposit and other intangible assets

resulting from the acquisitions of financial institutions, M&T's share of the operating results and distributions associated with BLG, merger-related expenses resulting from acquisitions, and the net impact of the Company's allocation methodologies for internal transfers for funding charges and credits associated with the earning assets and interest-bearing liabilities of the Company's reportable segments and the provision for credit losses. The "All Other" category also includes trust income of the Company that reflects the ICS and WAS business activities. The various components of the "All Other" category resulted in a net loss of $302,000 for the quarter ended June 30, 2019, compared with net income of $23 million in the year-earlier quarter and a net loss of $7 million in the first quarter of 2019. The change from the year-earlier quarter was largely due to the $48 million charge to reduce the carrying value of the investment in an asset manager and higher personnel-related costs of $24 million, partially offset by the favorable impact from the Company's allocation methodologies for internal transfers for funding charges and credits associated with earning assets and interest-bearing liabilities of the Company's reportable segments and a $7 million rise in trust income. The reduced net loss in the second quarter of 2019 as compared with the immediately preceding quarter reflected a $50 million seasonal decrease in personnel-related expenses and higher trust income of $12 million. Those favorable factors were largely offset by $37 million of income from BLG received in the first quarter of 2019 and the unfavorable impact from the Company's allocation methodologies for the provision for credit losses. The "All Other" category had a net loss of $8 million for the six months ended June 30, 2019, compared with a net loss of $53 million recorded in the corresponding prior year period. The improved performance in 2019 was attributable to the following factors: the favorable impact from the Company's allocation methodologies for internal transfers for funding charges and credits associated with earning assets and interest-bearing liabilities of the Company's reportable segments; lower additions to the reserve for legal matters of $85 million (a $50 million addition to the reserve in 2019, compared with a $135 million addition in 2018); a $14 million increase in earnings from BLG; and higher trust income of $8 million. Partially offsetting those favorable factors were a $52 million rise in personnel-related costs, reflecting annual merit and other increases and higher costs for incentive and stock-based compensation and employee benefits, the $48 million charge associated with the reduction of the carrying value of the asset manager and an $11 million increase in equipment and occupancy costs.

Recent Accounting Developments

A discussion of recent accounting developments is included in note 16 of Notes to Financial Statements.

Forward-Looking Statements

Management's Discussion and Analysis of Financial Condition and Results of Operations and other sections of this quarterly report contain forward-looking statements that are based on current expectations, estimates and projections about the Company's business, management's beliefs and assumptions made by management. Forward-looking statements are typically identified by words such as "believe," "expect," "anticipate," "intend," "target," "estimate," "continue," "positions," "prospects" or "potential," by future conditional verbs such as "will," "would," "should," "could," or "may," or by variations of such words or by similar expressions. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions ("Future Factors") which are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in such forward-looking statements. Forward-looking statements speak only as of the date they are made and the Company assumes no duty to update forward-looking statements.

Future Factors include changes in interest rates, spreads on earning assets and interest-bearing liabilities, and interest rate sensitivity; prepayment speeds, loan originations, credit losses and market values of loans, collateral securing loans and other assets; sources of liquidity; common shares outstanding; common stock price volatility; fair value of and number of stock-based compensation awards to be issued in future periods; the impact of changes in market values on trust-related revenues; legislation and/or regulation affecting the financial services industry as a whole, and M&T and its subsidiaries individually or collectively, including tax legislation or regulation; regulatory supervision and oversight, including monetary policy and capital requirements; changes in accounting policies or procedures as may be required by the FASB or regulatory agencies; increasing price and product/service competition by competitors, including new entrants; rapid technological developments and changes; the ability to continue to introduce competitive new products and services on a timely, cost-effective basis; the mix of products/services;

containing costs and expenses; governmental and public policy changes; protection and validity of intellectual property rights; reliance on large customers; technological, implementation and cost/financial risks in large, multi-year contracts; the outcome of pending and future litigation and governmental proceedings, including tax-related examinations and other matters; continued availability of financing; financial resources in the amounts, at the times and on the terms required to support M&T and its subsidiaries' future businesses; and material differences in the actual financial results of merger, acquisition and investment activities compared with M&T's initial expectations, including the full realization of anticipated cost savings and revenue enhancements.

These are representative of the Future Factors that could affect the outcome of the forward-looking statements. In addition, such statements could be affected by general industry and market conditions and growth rates, general economic and political conditions, either nationally or in the states in which M&T and its subsidiaries do business, including interest rate and currency exchange rate fluctuations, changes and trends in the securities markets, and other Future Factors.

Table 1

QUARTERLY TRENDS

	2019 Quarters		2018 Quarters			
	Second	First	Fourth	Third	Second	First
Earnings and dividends						
Amounts in thousands, except per share						
Interest income (taxable-equivalent basis)	$ 1,243,838	1,232,276	1,226,239	1,173,108	1,134,302	1,086,959
Interest expense	196,432	176,249	161,321	138,337	120,118	106,633
Net interest income	1,047,406	1,056,027	1,064,918	1,034,771	1,014,184	980,326
Less: provision for credit losses	55,000	22,000	38,000	16,000	35,000	43,000
Other income	512,095	500,765	480,596	459,294	457,414	458,696
Less: other expense	873,032	894,348	802,162	775,979	776,577	933,344
Income before income taxes	631,469	640,444	705,352	702,086	660,021	462,678
Applicable income taxes	152,284	151,735	153,175	170,262	161,464	105,259
Taxable-equivalent adjustment	5,925	5,967	5,958	5,733	5,397	4,809
Net income	$ 473,260	482,742	546,219	526,091	493,160	352,610
Net income available to common shareholders-diluted	$ 452,633	462,086	525,328	505,365	472,600	332,749
Per common share data						
Basic earnings	$ 3.34	3.35	3.76	3.54	3.26	2.24
Diluted earnings	3.34	3.35	3.76	3.53	3.26	2.23
Cash dividends	$ 1.00	1.00	1.00	1.00	.80	.75
Average common shares outstanding						
Basic	135,433	137,889	139,744	142,822	144,825	148,688
Diluted	135,464	137,920	139,838	142,976	144,998	148,905
Performance ratios, annualized						
Return on						
Average assets	1.60 %	1.68 %	1.84 %	1.80 %	1.70 %	1.22 %
Average common shareholders' equity	12.68 %	13.14 %	14.80 %	14.08 %	13.32 %	9.15 %
Net interest margin on average earning assets (taxable-equivalent basis)	3.91 %	4.04 %	3.92 %	3.88 %	3.83 %	3.71 %
Nonaccrual loans to total loans and leases, net of unearned discount	.96 %	.99 %	1.01 %	1.00 %	.93 %	.99 %
Net operating (tangible) results (a)						
Net operating income (in thousands)	$ 477,001	486,440	550,169	530,619	497,869	357,498
Diluted net operating income per common share	$ 3.37	3.38	3.79	3.56	3.29	2.26
Annualized return on						
Average tangible assets	1.68 %	1.76 %	1.93 %	1.89 %	1.79 %	1.28 %
Average tangible common shareholders' equity	18.83 %	19.56 %	22.16 %	21.00 %	19.91 %	13.51 %
Efficiency ratio (b)	55.98 %	57.56 %	51.70 %	51.41 %	52.42 %	63.98 %
Balance sheet data						
In millions, except per share						
Average balances						
Total assets (c)	$ 118,487	116,839	117,799	115,997	116,413	117,684
Total tangible assets (c)	113,864	112,213	113,169	111,363	111,775	113,041
Earning assets	107,511	106,096	107,785	105,835	106,210	107,231
Investment securities	12,170	12,949	13,034	13,431	13,856	14,467
Loans and leases, net of unearned discount	89,150	88,477	87,301	87,132	87,406	87,766
Deposits	91,371	89,733	91,104	89,252	90,195	91,119
Common shareholders' equity (c)	14,398	14,337	14,157	14,317	14,301	14,827
Tangible common shareholders' equity (c)	9,775	9,711	9,527	9,683	9,663	10,184
At end of quarter						
Total assets (c)	$ 121,555	120,025	120,097	116,828	118,426	118,623
Total tangible assets (c)	116,934	115,400	115,470	112,197	113,790	113,982
Earning assets	110,323	108,849	109,321	106,331	107,819	107,976
Investment securities	11,580	12,537	12,693	13,074	13,283	14,067
Loans and leases, net of unearned discount	89,878	88,640	88,466	86,680	87,797	87,711
Deposits	91,681	90,470	90,157	89,140	89,273	90,947
Common shareholders' equity, net of undeclared cumulative preferred dividends (c)	14,457	14,353	14,225	14,201	14,343	14,475
Tangible common shareholders' equity (c)	9,836	9,728	9,598	9,570	9,707	9,834
Equity per common share	107.73	105.04	102.69	100.38	99.43	98.60
Tangible equity per common share	73.29	71.19	69.28	67.64	67.29	66.99

(a) Excludes amortization and balances related to goodwill and core deposit and other intangible assets and merger-related expenses which, except in the calculation of the efficiency ratio, are net of applicable income tax effects. A reconciliation of net income and net operating income appears in Table 2.

(b) Excludes impact of merger-related expenses and net securities transactions.

(c) The difference between total assets and total tangible assets, and common shareholders' equity and tangible common shareholders' equity, represents goodwill, core deposit and other intangible assets, net of applicable deferred tax balances. A reconciliation of such balances appears in Table 2.

Table 2

RECONCILIATION OF QUARTERLY GAAP TO NON-GAAP MEASURES

	2019 Quarters		2018 Quarters			
	Second	First	Fourth	Third	Second	First
Income statement data (in thousands, except per share)						
Net income						
Net income	$ 473,260	482,742	546,219	526,091	493,160	352,610
Amortization of core deposit and other intangible assets (a)	3,741	3,698	3,950	4,528	4,709	4,888
Net operating income	$ 477,001	486,440	550,169	530,619	497,869	357,498
Earnings per common share						
Diluted earnings per common share	$ 3.34	3.35	3.76	3.53	3.26	2.23
Amortization of core deposit and other intangible assets (a)	.03	.03	.03	.03	.03	.03
Diluted net operating earnings per common share	$ 3.37	3.38	3.79	3.56	3.29	2.26
Other expense						
Other expense	$ 873,032	894,348	802,162	775,979	776,577	933,344
Amortization of core deposit and other intangible assets	(5,077)	(5,020)	(5,359)	(6,143)	(6,388)	(6,632)
Noninterest operating expense	$ 867,955	889,328	796,803	769,836	770,189	926,712
Efficiency ratio						
Noninterest operating expense (numerator)	$ 867,955	889,328	796,803	769,836	770,189	926,712
Taxable-equivalent net interest income	1,047,406	1,056,027	1,064,918	1,034,771	1,014,184	980,326
Other income	512,095	500,765	480,596	459,294	457,414	458,696
Less: Gain (loss) on bank investment securities	8,911	11,841	4,219	(3,415)	2,326	(9,431)
Denominator	$ 1,550,590	1,544,951	1,541,295	1,497,480	1,469,272	1,448,453
Efficiency ratio	55.98%	57.56%	51.70%	51.41%	52.42%	63.98%
Balance sheet data (in millions)						
Average assets						
Average assets	$ 118,487	116,839	117,799	115,997	116,413	117,684
Goodwill	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(41)	(45)	(50)	(55)	(62)	(68)
Deferred taxes	11	12	13	14	17	18
Average tangible assets	$ 113,864	112,213	113,169	111,363	111,775	113,041
Average common equity						
Average total equity	$ 15,630	15,569	15,389	15,549	15,533	16,059
Preferred stock	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)
Average common equity	14,398	14,337	14,157	14,317	14,301	14,827
Goodwill	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(41)	(45)	(50)	(55)	(62)	(68)
Deferred taxes	11	12	13	14	17	18
Average tangible common equity	$ 9,775	9,711	9,527	9,683	9,663	10,184
At end of quarter						
Total assets						
Total assets	$ 121,555	120,025	120,097	116,828	118,426	118,623
Goodwill	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(38)	(44)	(47)	(52)	(59)	(65)
Deferred taxes	10	12	13	14	16	17
Total tangible assets	$ 116,934	115,400	115,470	112,197	113,790	113,982
Total common equity						
Total equity	$ 15,692	15,588	15,460	15,436	15,578	15,710
Preferred stock	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)
Undeclared dividends - cumulative preferred stock	(3)	(3)	(3)	(3)	(3)	(3)
Common equity, net of undeclared cumulative preferred dividends	14,457	14,353	14,225	14,201	14,343	14,475
Goodwill	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(38)	(44)	(47)	(52)	(59)	(65)
Deferred taxes	10	12	13	14	16	17
Total tangible common equity	$ 9,836	9,728	9,598	9,570	9,707	9,834

(a) After any related tax effect.

Table 3

AVERAGE BALANCE SHEETS AND ANNUALIZED TAXABLE-EQUIVALENT RATES

	2019 Second Quarter			2019 First Quarter			2018 Fourth Quarter		
Average balance in millions; interest in thousands	Average Balance	Interest	Average Rate	Average Balance	Interest	Average Rate	Average Balance	Interest	Average Rate
Assets									
Earning assets									
Loans and leases, net of unearned discount (a)									
Commercial, financial, etc.	$ 23,335	$ 288,914	4.97 %	23,010	287,676	5.07 %	22,376	277,350	4.92 %
Real estate – commercial	34,768	465,911	5.30	34,524	461,050	5.34	33,586	452,448	5.27
Real estate – consumer	16,723	179,218	4.29	16,939	184,868	4.37	17,421	187,670	4.31
Consumer	14,324	197,418	5.53	14,004	190,193	5.51	13,918	187,723	5.35
Total loans and leases, net	89,150	1,131,461	5.09	88,477	1,123,787	5.15	87,301	1,105,191	5.02
Interest-bearing deposits at banks	6,122	36,325	2.38	4,605	27,407	2.41	7,394	41,635	2.23
Federal funds sold	1	5	2.83	—	4	2.84	—	2	2.62
Trading account	68	372	2.20	65	556	3.40	56	370	2.65
Investment securities (b)									
U.S. Treasury and federal agencies	11,364	68,755	2.43	12,151	72,967	2.44	12,270	72,274	2.34
Obligations of states and political subdivisions	7	93	5.11	8	67	3.25	10	113	4.46
Other	799	6,827	3.43	790	7,488	3.84	754	6,654	3.50
Total investment securities	12,170	75,675	2.49	12,949	80,522	2.52	13,034	79,041	2.41
Total earning assets	107,511	1,243,838	4.64	106,096	1,232,276	4.71	107,785	1,226,239	4.51
Allowance for credit losses	(1,024)			(1,021)			(1,021)		
Cash and due from banks	1,260			1,317			1,320		
Other assets	10,740			10,447			9,715		
Total assets	$ 118,487			116,839			117,799		
Liabilities and shareholders' equity									
Interest-bearing liabilities									
Interest-bearing deposits									
Savings and interest-checking deposits	$ 53,495	91,556	.69	52,095	76,139	.59	51,820	69,990	.54
Time deposits	6,530	24,931	1.53	6,351	21,081	1.35	5,960	16,149	1.07
Deposits at Cayman Islands office	1,247	6,040	1.94	972	4,737	1.98	693	3,154	1.81
Total interest-bearing deposits	61,272	122,527	.80	59,418	101,957	.70	58,473	89,293	.61
Short-term borrowings	1,263	7,893	2.51	1,091	6,713	2.49	315	1,520	1.91
Long-term borrowings	8,278	66,012	3.20	8,494	67,579	3.23	9,239	70,508	3.03
Total interest-bearing liabilities	70,813	196,432	1.11	69,003	176,249	1.04	68,027	161,321	.94
Noninterest-bearing deposits	30,099			30,315			32,631		
Other liabilities	1,945			1,952			1,752		
Total liabilities	102,857			101,270			102,410		
Shareholders' equity	15,630			15,569			15,389		
Total liabilities and shareholders' equity	$ 118,487			116,839			117,799		
Net interest spread			3.53			3.67			3.57
Contribution of interest-free funds			.38			.37			.35
Net interest income/margin on earning assets		$ 1,047,406	3.91 %		1,056,027	4.04 %		1,064,918	3.92 %

(a) *Includes nonaccrual loans.*
(b) *Includes available-for-sale securities at amortized cost.*

(continued)

Table 3 (continued)

AVERAGE BALANCE SHEETS AND ANNUALIZED TAXABLE-EQUIVALENT RATES (continued)

	2018 Third Quarter				2018 Second Quarter			
Average balance in millions; interest in thousands	Average Balance	Interest	Average Rate		Average Balance	Interest	Average Rate	
Assets								
Earning assets								
Loans and leases, net of unearned discount (a)								
Commercial, financial, etc.	$ 21,689	$ 255,735	4.68	%	21,709	243,081	4.49	%
Real estate – commercial	33,800	440,381	5.10		33,687	421,705	4.95	
Real estate – consumer	18,006	189,634	4.21		18,644	193,547	4.15	
Consumer	13,637	180,764	5.26		13,366	171,441	5.14	
Total loans and leases, net	87,132	1,066,514	4.86		87,406	1,029,774	4.73	
Interest-bearing deposits at banks	5,207	26,001	1.98		4,890	21,869	1.79	
Federal funds sold	—	—	—		1	4	2.23	
Trading account	65	289	1.78		57	416	2.92	
Investment securities (b)								
U.S. Treasury and federal agencies	12,656	72,548	2.27		13,066	76,704	2.35	
Obligations of states and political subdivisions	12	146	4.75		20	217	4.45	
Other	763	7,610	3.96		770	5,318	2.77	
Total investment securities	13,431	80,304	2.37		13,856	82,239	2.38	
Total earning assets	105,835	1,173,108	4.40		106,210	1,134,302	4.28	
Allowance for credit losses	(1,020)				(1,018)			
Cash and due from banks	1,317				1,277			
Other assets	9,865				9,944			
Total assets	$ 115,997				116,413			
Liabilities and shareholders' equity								
Interest-bearing liabilities								
Interest-bearing deposits								
Savings and interest-checking deposits	$ 51,552	56,156	.43		52,547	48,738	.37	
Time deposits	5,826	12,976	.88		5,997	11,362	.76	
Deposits at Cayman Islands office	407	1,556	1.52		225	542	.97	
Total interest-bearing deposits	57,785	70,688	.49		58,769	60,642	.41	
Short-term borrowings	374	1,600	1.70		353	1,383	1.57	
Long-term borrowings	9,047	66,049	2.90		8,480	58,093	2.75	
Total interest-bearing liabilities	67,206	138,337	.82		67,602	120,118	.71	
Noninterest-bearing deposits	31,467				31,426			
Other liabilities	1,775				1,852			
Total liabilities	100,448				100,880			
Shareholders' equity	15,549				15,533			
Total liabilities and shareholders' equity	$ 115,997				116,413			
Net interest spread			3.58				3.57	
Contribution of interest-free funds			.30				.26	
Net interest income/margin on earning assets		$ 1,034,771	3.88	%		1,014,184	3.83	%

(a) Includes nonaccrual loans.
(b) Includes available-for-sale securities at amortized cost.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Incorporated by reference to the discussion contained under the caption "Taxable-equivalent Net Interest Income" in Part I, Item 2, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Item 4. Controls and Procedures.

(a) Evaluation of disclosure controls and procedures. Based upon their evaluation of the effectiveness of M&T's disclosure controls and procedures (as defined in Exchange Act rules 13a-15(e) and 15d-15(e)), René F. Jones, Chairman of the Board and Chief Executive Officer, and Darren J. King, Executive Vice President and Chief Financial Officer, concluded that M&T's disclosure controls and procedures were effective as of June 30, 2019.

(b) Changes in internal control over financial reporting. M&T regularly assesses the adequacy of its internal control over financial reporting and enhances its controls in response to internal control assessments and internal and external audit and regulatory recommendations. No changes in internal control over financial reporting have been identified in connection with the evaluation of disclosure controls and procedures during the quarter ended June 30, 2019 that have materially affected, or are reasonably likely to materially affect, M&T's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

M&T and its subsidiaries are subject in the normal course of business to various pending and threatened legal proceedings and other matters in which claims for monetary damages are asserted. On an on-going basis management, after consultation with legal counsel, assesses the Company's liabilities and contingencies in connection with such proceedings. For those matters where it is probable that the Company will incur losses and the amounts of the losses can be reasonably estimated, the Company records an expense and corresponding liability in its consolidated financial statements. To the extent the pending or threatened litigation could result in exposure in excess of that liability, the amount of such excess is not currently estimable. Although not considered probable, the range of reasonably possible losses for such matters in the aggregate, beyond the existing recorded liability, was between $0 and $50 million. Although the Company does not believe that the outcome of pending litigations will be material to the Company's consolidated financial position, it cannot rule out the possibility that such outcomes will be material to the consolidated results of operations for a particular reporting period in the future.

ESOP Matters: Wilmington Trust, N.A. provides retirement services, including serving in certain trustee roles relating to Employee Stock Ownership Plans ("ESOPs"). Beginning in 2010, the U.S. Department of Labor ("DOL") announced that it would increase its focus on ESOP transactions, particularly with regard to valuation issues relating to ESOP transactions. Beginning in late 2013, Wilmington Trust, N.A. began receiving requests for information and subpoenas relating to certain ESOP transactions for which it acted as trustee. In June 2016, Wilmington Trust, N.A. received a DOL subpoena seeking information on its global ESOP trustee business. In addition to these investigations, the DOL has commenced three lawsuits against Wilmington Trust, N.A. relating to its role as trustee of three ESOP transactions. In July 2019, Wilmington Trust, N.A. reached a settlement in principle with the DOL to resolve certain pending DOL ESOP matters. Although a formal settlement agreement has yet to be prepared and executed, the Company does not expect that the agreed-upon settlement will have a material incremental impact on the Company's consolidated financial position or results of operations. Wilmington Trust, N.A. has also been named as a defendant in four private party lawsuits relating to its role as trustee for four ESOP transactions. Under applicable transaction documents, Wilmington Trust, N.A. may be entitled to indemnification by the ESOP Plan Sponsors. These matters could result in damages, settlements, penalties, restitution, reputational damage or additional costs and expenses.

Due to their complex nature, it is difficult to estimate when litigation or investigatory matters may be resolved. As set forth in the introductory paragraph to this Item 1 — Legal Proceedings, losses from current litigation and regulatory matters which the Company is subject to that are not currently considered probable are within a range of reasonably possible losses for such matters in the aggregate, beyond the existing recorded liability, and are included in the range of reasonably possible losses set forth herein.

Item 1A. Risk Factors.

There have been no material changes in risk factors relating to M&T to those disclosed in response to Item 1A. to Part I of Form 10-K for the year ended December 31, 2018.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

(a) – (b) Not applicable.

(c)

	Issuer Purchases of Equity Securities			
Period	(a)Total Number of Shares (or Units) Purchased (1)	(b)Average Price Paid per Share (or Unit)	(c)Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	(d)Maximum Number (or Approximate Dollar Value) of Shares (or Units) that may yet be Purchased Under the Plans or Programs (2) (3)
April 1 - April 30, 2019	82	$ 170.63	—	$ 436,008,393
May 1 - May 31, 2019	2,275,378	164.22	2,275,000	62,429,992
June 1 - June 30, 2019	175,070	162.15	175,000	34,053,904
Total	2,450,530	$ 164.07	2,450,000	

(1) The total number of shares purchased during the periods indicated includes shares purchased as part of publicly announced programs and shares deemed to have been received from employees who exercised stock options by attesting to previously acquired common shares in satisfaction of the exercise price or shares received from employees upon the vesting of restricted stock awards in satisfaction of applicable tax withholding obligations, as is permitted under M&T's stock-based compensation plans.

(2) On July 17, 2018, M&T announced a program to purchase up to $1.8 billion of its common stock through June 30, 2019.

(3) On July 17, 2019 M&T's Board of Directors authorized a new stock repurchase program to repurchase up to $1.635 billion of common shares, including the remaining shares not purchased related to M&T's 2018 revised capital plan.

Item 3. Defaults Upon Senior Securities.

(Not applicable.)

Item 4. Mine Safety Disclosures.

(None.)

Item 5. Other Information.

(None.)

Item 6. Exhibits.

The following exhibits are filed as a part of this report.

Exhibit No.	
31.1	Certification of Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002. Filed herewith.
31.2	Certification of Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002. Filed herewith.
32.1	Certification of Chief Executive Officer under 18 U.S.C. §1350 pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. Filed herewith.
32.2	Certification of Chief Financial Officer under 18 U.S.C. §1350 pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. Filed herewith.
101.INS	XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema. Filed herewith.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase. Filed herewith.
101.LAB	XBRL Taxonomy Extension Label Linkbase. Filed herewith.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase. Filed herewith.
101.DEF	XBRL Taxonomy Definition Linkbase. Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

M&T BANK CORPORATION

Date: August 5, 2019

By: /s/ Darren J. King
Darren J. King
Executive Vice President
and Chief Financial Officer

EXHIBIT 31.1

CERTIFICATIONS

I, René F. Jones, certify that:

1. I have reviewed this quarterly report on Form 10-Q of M&T Bank Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 5, 2019

By: /s/ René F. Jones

René F. Jones
Chairman of the Board and
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATIONS

I, Darren J. King, certify that:

1. I have reviewed this quarterly report on Form 10-Q of M&T Bank Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 5, 2019

By: /s/ Darren J. King

Darren J. King
Executive Vice President
and Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER UNDER 18 U.S.C. §1350

I, René F. Jones, Chairman of the Board and Chief Executive Officer of M&T Bank Corporation, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

(1) the Quarterly Report on Form 10-Q of M&T Bank Corporation for the quarterly period ended June 30, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of M&T Bank Corporation.

The foregoing certification is being furnished solely pursuant to 18 U.S.C. §1350 and is not being filed as part of the Report or as a separate disclosure document.

/s/ René F. Jones
René F. Jones

August 5, 2019

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to M&T Bank Corporation and will be retained by M&T Bank Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER UNDER 18 U.S.C. §1350

I, Darren J. King, Executive Vice President and Chief Financial Officer of M&T Bank Corporation, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

(1) the Quarterly Report on Form 10-Q of M&T Bank Corporation for the quarterly period ended June 30, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of M&T Bank Corporation.

The foregoing certification is being furnished solely pursuant to 18 U.S.C. §1350 and is not being filed as part of the Report or as a separate disclosure document.

/s/ Darren J. King
Darren J. King

August 5, 2019

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to M&T Bank Corporation and will be retained by M&T Bank Corporation and furnished to the Securities and Exchange Commission or its staff upon request.