M&T BANK CORP
Form 10-K
February 20, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

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	16-0968385
(State of incorporation)	(I.R.S. Employer Identification No.)
One M&T Plaza, Buffalo, New York	14203
(Address of principal executive offices)	(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	Name of Each Exchange on Which Registered
Common Stock, $.50 par value	New York Stock Exchange

6.375% Cumulative Perpetual Preferred Stock, Series A, $1,000 liquidation preference per share	New York Stock Exchange
6.375% Cumulative Perpetual Preferred Stock, Series C, $1,000 liquidation preference per share	New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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, 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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 the 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 Act). Yes No

Aggregate market value of the Common Stock, $0.50 par value, held by non-affiliates of the registrant, computed by reference to the closing price as of the close of business on June 30, 2018: $23,892,660,033.

Number of shares of the Common Stock, $0.50 par value, outstanding as of the close of business on January 31, 2019: 138,526,278 shares.

Documents Incorporated By Reference:

(1) Portions of the Proxy Statement for the 2019 Annual Meeting of Shareholders of M&T Bank Corporation in Parts II and III.

M&T BANK CORPORATION

Form 10-K for the year ended December 31, 2018

CROSS-REFERENCE SHEET

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PART I

Item 1. Business.

M&T Bank Corporation ("Registrant" or "M&T") is a New York business corporation which is registered as a financial holding company under the Bank Holding Company Act of 1956, as amended ("BHCA") and as a bank holding company ("BHC") under Article III-A of the New York Banking Law ("Banking Law"). The principal executive offices of M&T are located at One M&T Plaza, Buffalo, New York 14203. M&T was incorporated in November 1969. M&T and its direct and indirect subsidiaries are collectively referred to herein as the "Company." As of December 31, 2018 the Company had consolidated total assets of $120.1 billion, deposits of $90.2 billion and shareholders' equity of $15.5 billion. The Company had 16,413 full-time and 854 part-time employees as of December 31, 2018.

At December 31, 2018, M&T had two wholly owned bank subsidiaries: Manufacturers and Traders Trust Company ("M&T Bank") and Wilmington Trust, National Association ("Wilmington Trust, N.A."). The banks collectively offer a wide range of retail and commercial banking, trust and wealth management, and investment services to their customers. At December 31, 2018, M&T Bank represented 99% of consolidated assets of the Company.

The Company from time to time considers acquiring banks, thrift institutions, branch offices of banks or thrift institutions, or other businesses within markets currently served by the Company or in other locations that would complement the Company's business or its geographic reach. The Company has pursued acquisition opportunities in the past, continues to review different opportunities, including the possibility of major acquisitions, and intends to continue this practice.

Subsidiaries

M&T Bank is a banking corporation that is incorporated under the laws of the State of New York. M&T Bank is a member of the Federal Reserve System and the Federal Home Loan Bank System, and its deposits are insured by the Federal Deposit Insurance Corporation ("FDIC") up to applicable limits. M&T acquired all of the issued and outstanding shares of the capital stock of M&T Bank in December 1969. The stock of M&T Bank represents a major asset of M&T. M&T Bank operates under a charter granted by the State of New York in 1892, and the continuity of its banking business is traced to the organization of the Manufacturers and Traders Bank in 1856. The principal executive offices of M&T Bank are located at One M&T Plaza, Buffalo, New York 14203. As of December 31, 2018, M&T Bank had 750 domestic banking offices located in New York State, Maryland, New Jersey, Pennsylvania, Delaware, Connecticut, Virginia, West Virginia, and the District of Columbia, a full-service commercial banking office in Ontario, Canada, and an office in George Town, Cayman Islands. As of December 31, 2018, M&T Bank had consolidated total assets of $119.6 billion, deposits of $91.6 billion and shareholder's equity of $14.9 billion. The deposit liabilities of M&T Bank are insured by the FDIC through its Deposit Insurance Fund ("DIF"). As a commercial bank, M&T Bank offers a broad range of financial services to a diverse base of consumers, businesses, professional clients, governmental entities and financial institutions located in its markets. Lending is largely focused on consumers residing in New York State, Maryland, New Jersey, Pennsylvania, Delaware, Connecticut, Virginia, West Virginia, and Washington, D.C., and on small and medium-size businesses based in those areas, although loans are originated through offices in other states and in Ontario, Canada. In addition, the Company conducts lending activities in various states through other subsidiaries. Trust and other fiduciary services are offered by M&T Bank and through its wholly owned subsidiary, Wilmington Trust Company. M&T Bank and certain of its subsidiaries also offer commercial mortgage loans secured by income producing properties or properties used by borrowers in a trade or business. Additional financial services are provided through other operating subsidiaries of the Company.

Wilmington Trust, N.A., a national banking association and a member of the Federal Reserve System and the FDIC, commenced operations on October 2, 1995. The deposit liabilities of Wilmington Trust, N.A. are insured by the FDIC through the DIF. The main office of Wilmington Trust, N.A. is located at 1100 North Market Street, Wilmington, Delaware 19890. Wilmington Trust, N.A. offers various trust and wealth management services. Wilmington Trust, N.A. offered selected deposit and loan products on a nationwide basis, through telephone, Internet and direct mail marketing techniques. As of December 31, 2018, Wilmington Trust, N.A. had total assets of $4.3 billion, deposits of $3.7 billion and shareholder’s equity of $585 million.

Wilmington Trust Company, a wholly owned subsidiary of M&T Bank, was incorporated as a Delaware bank and trust company in March 1901 and amended its charter in July 2011 to become a nondepository trust company. Wilmington Trust Company provides a variety of Delaware based trust, fiduciary and custodial services to its clients. As of December 31, 2018, Wilmington Trust Company had total assets of $1.1 billion and shareholder’s equity of $599 million. Revenues of Wilmington Trust Company were $138 million in 2018. The headquarters of Wilmington Trust Company are located at 1100 North Market Street, Wilmington, Delaware 19890.

M&T Insurance Agency, Inc. (“M&T Insurance Agency”), a wholly owned insurance agency subsidiary of M&T Bank, was incorporated as a New York corporation in March 1955. M&T Insurance Agency provides insurance agency services principally to the commercial market. As of December 31, 2018, M&T Insurance Agency had assets of $44 million and shareholder’s equity of $24 million. M&T Insurance Agency recorded revenues of $36 million during 2018. The headquarters of M&T Insurance Agency are located at 285 Delaware Avenue, Buffalo, New York 14202.

M&T Real Estate Trust (“M&T Real Estate”) is a Maryland Real Estate Investment Trust that traces its origin to the incorporation of M&T Real Estate, Inc. in July 1995. M&T Real Estate engages in commercial real estate lending and provides loan servicing to M&T Bank. As of December 31, 2018, M&T Real Estate had assets of $25.9 billion, common shareholder’s equity of $25.1 billion, and preferred shareholders’ equity, consisting of 9% fixed rate preferred stock (par value $1,000), of $1 million. All of the outstanding common stock and 89% of the preferred stock of M&T Real Estate is owned by M&T Bank. The remaining 11% of M&T Real Estate’s outstanding preferred stock is owned by officers or former officers of the Company. M&T Real Estate recorded $1.2 billion of revenue in 2018. The headquarters of M&T Real Estate are located at M&T Center, One Fountain Plaza, Buffalo, New York 14203.

M&T Realty Capital Corporation (“M&T Realty Capital”), a wholly owned subsidiary of M&T Bank, was incorporated as a Maryland corporation in October 1973. M&T Realty Capital engages in multifamily commercial real estate lending and provides loan servicing to purchasers of the loans it originates. As of December 31, 2018, M&T Realty Capital serviced or sub-serviced $18.2 billion of commercial mortgage loans for non-affiliates and had assets of $1.1 billion and shareholder’s equity of $176 million. M&T Realty Capital recorded revenues of $157 million in 2018. The headquarters of M&T Realty Capital are located at One Light Street, Baltimore, Maryland 21202.

M&T Securities, Inc. (“M&T Securities”) is a wholly owned subsidiary of M&T Bank that was incorporated as a New York business corporation in November 1985. M&T Securities is registered as a broker/dealer under the Securities Exchange Act of 1934, as amended, and as an investment advisor under the Investment Advisors Act of 1940, as amended (the “Investment Advisors Act”). M&T Securities is licensed as a life insurance agent in each state where M&T Bank operates branch offices and in a number of other states. It provides securities brokerage, investment advisory and insurance services. As of December 31, 2018, M&T Securities had assets of $49 million and shareholder’s equity of $36 million. M&T Securities recorded $93 million of revenue during 2018. The headquarters of M&T Securities are located at 285 Delaware Avenue, Buffalo, New York 14202.

Wilmington Trust Investment Advisors, Inc. ("WT Investment Advisors"), a wholly owned subsidiary of M&T Bank, was incorporated as a Maryland corporation on June 30, 1995. WT Investment Advisors, a registered investment advisor under the Investment Advisors Act, serves as an investment advisor to the Wilmington Funds, a family of proprietary mutual funds, and institutional clients. As of December 31, 2018, WT Investment Advisors had assets of $52 million and shareholder's equity of $45 million. WT Investment Advisors recorded revenues of $40 million in 2018. The headquarters of WT Investment Advisors are located at 100 East Pratt Street, Baltimore, Maryland 21202.

Wilmington Funds Management Corporation ("Wilmington Funds Management") is a wholly owned subsidiary of M&T that was incorporated in September 1981 as a Delaware corporation. Wilmington Funds Management is registered as an investment advisor under the Investment Advisors Act and serves as an investment advisor to the Wilmington Funds. Wilmington Funds Management had assets and shareholder's equity of $50 million as of December 31, 2018. Wilmington Funds Management recorded revenues of $23 million in 2018. The headquarters of Wilmington Funds Management are located at 1100 North Market Street, Wilmington, Delaware 19890.

Wilmington Trust Investment Management, LLC ("WTIM") is a wholly owned subsidiary of M&T and was incorporated in December 2001 as a Georgia limited liability company. WTIM is a registered investment advisor under the Investment Advisors Act and provides investment management services to clients, including certain private funds. As of December 31, 2018, WTIM has assets and shareholder's equity of $24 million. WTIM recorded revenues of $1 million in 2018. WTIM's headquarters is located at Terminus 27th Floor, 3280 Peachtree Road N.E., Atlanta, Georgia 30305.

The Registrant and its banking subsidiaries have a number of other special-purpose or inactive subsidiaries. These other subsidiaries did not represent, individually and collectively, a significant portion of the Company's consolidated assets, net income and shareholders' equity at December 31, 2018.

Segment Information, Principal Products/Services and Foreign Operations

Information about the Registrant's business segments is included in note 22 of Notes to Financial Statements filed herewith in Part II, Item 8, "Financial Statements and Supplementary Data" and is further discussed in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations." The Registrant's reportable segments have been determined based upon its 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 Company's international activities are discussed in note 17 of Notes to Financial Statements filed herewith in Part II, Item 8, "Financial Statements and Supplementary Data."

The only activity that, as a class, contributed 10% or more of the sum of consolidated interest income and other income in any of the last three years was interest on loans. The amount of income from such sources during those years is set forth on the Company's Consolidated Statement of Income filed herewith in Part II, Item 8, "Financial Statements and Supplementary Data."

Supervision and Regulation of the Company

M&T and its subsidiaries are subject to the comprehensive regulatory framework applicable to bank and financial holding companies and their subsidiaries. Regulation of financial institutions such as M&T and its subsidiaries is intended primarily for the protection of depositors, the FDIC's DIF 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.

Proposals to change the applicable regulatory framework may be introduced in the United States Congress and state legislatures, as well as by regulatory agencies. Such initiatives may include proposals to expand or contract the powers of bank holding companies and depository institutions or proposals to substantially change the financial institution regulatory system. Such legislation could change banking statutes and the operating environment of the Company in substantial and unpredictable ways. If enacted, such legislation could increase or decrease the cost of doing business, limit or expand permissible activities or affect the competitive balance among banks, savings associations, credit unions, and other financial institutions. A change in statutes, regulations or regulatory policies applicable to M&T or any of its subsidiaries could have a material effect on the business, financial condition or results of operations of the Company.

Described hereafter are material elements of the significant federal and state laws and regulations applicable to M&T and its subsidiaries. The descriptions are not intended to be complete and are qualified in their entirety by reference to the full text of the statutes and regulations described and do not include any potential or proposed changes in current laws or regulations.

Overview

M&T is registered with the Board of Governors of the Federal Reserve System (“Federal Reserve”) as a financial holding company and BHC under the BHCA. As such, M&T and its subsidiaries are subject to the supervision, examination, reporting, capital and other requirements of the BHCA and the regulations of the Federal Reserve. In addition, M&T’s banking subsidiaries are subject to regulation, supervision and examination by, as applicable, the New York State Department of Financial Services (“NYSDFS”), the Office of the Comptroller of the Currency (“OCC”), the FDIC and the Federal Reserve and their consumer financial products and services are regulated by the Consumer Financial Protection Bureau (“CFPB”). Further, financial services entities such as M&T’s investment advisor subsidiaries and M&T’s broker-dealer are subject to regulation by the Securities and Exchange Commission (“SEC”), the Financial Industry Regulatory Authority (“FINRA”), and the Securities Investor Protection Corporation (“SIPC”), among others. Other non-bank affiliates and activities, particularly insurance brokerage and agency activities, are subject to other federal and state laws and regulations as well as licensing and regulation by state insurance and bank regulatory agencies. Although the scope of regulation and form of supervision may vary from state to state, insurance laws generally grant broad discretion to regulatory authorities in adopting regulations and supervising regulated activities. This supervision generally includes the licensing of insurance brokers and agents and the regulation of the handling of customer funds held in a fiduciary capacity as well as regulations requiring, among other things, maintenance of capital, record keeping, and reporting.

M&T Bank is a New York chartered bank and a member of the Federal Reserve. As a result, it is subject to extensive regulation, examination and oversight by the NYSDFS and the Federal Reserve Bank of New York. New York laws and regulations govern many aspects of M&T Bank’s operations, including branching, dividends, subsidiary activities, fiduciary activities, lending, and deposit taking. M&T Bank is also subject to Federal Reserve regulations and guidance, including with respect to capital levels. Its deposits are insured by the FDIC to $250,000 per depositor, which also exercises regulatory oversight over certain aspects of M&T Bank’s operations. Certain subsidiaries of M&T Bank are subject to regulation by other federal and state regulators as well. For example, M&T Securities is regulated by the SEC, FINRA, SIPC, and state securities regulators, and WT Investment Advisors is also subject to SEC regulation.

Wilmington Trust, N.A. is a national bank with operations that include fiduciary and related activities with limited lending and deposit business. It is subject to extensive regulation, examination

and oversight by the OCC which governs many aspects of its operations, including fiduciary activities, capital levels, office locations, dividends and subsidiary activities. Its deposits are insured by the FDIC to $250,000 per depositor, which also exercises regulatory oversight over certain aspects of the operations of Wilmington Trust, N.A.

Enhanced Prudential Standards

Under Section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"), as amended by the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 ("EGRRCPA"), which was signed into law on May 24, 2018, U.S. bank holding companies with total consolidated assets of $100 billion or more but less than $250 billion, including M&T, are currently subject to enhanced prudential standards. The enhanced prudential standards include risk-based capital and leverage requirements, liquidity standards, risk management and risk committee requirements, stress test requirements and a debt-to-equity limit for companies that the Financial Stability Oversight Council has determined would pose a grave threat to systemic financial stability were they to fail such limits. In general, EGRRCPA increased the statutory asset threshold above which the Federal Reserve is required to apply these enhanced prudential standards from $50 billion to $250 billion. Although EGRRCPA's increased asset threshold took effect immediately for bank holding companies with total consolidated assets less than $100 billion, the increased asset threshold for bank holding companies with total consolidated assets of $100 billion or more but less than $250 billion, including M&T, generally will become effective 18 months after the date of enactment (that is, November 2019). The Federal Reserve is authorized, however, during the 18-month period to exempt, by order, any BHC with assets between $100 billion and $250 billion from any enhanced prudential standard requirement. The Federal Reserve is also authorized to apply any enhanced prudential standard requirement to any bank holding companies with between $100 billion and $250 billion in total consolidated assets that would otherwise be exempt under EGRRCPA, if the Federal Reserve determines that such action is appropriate to address risks to financial stability and promote safety and soundness, taking into consideration certain factors including the bank holding companies capital structure, riskiness, complexity, financial activities (including financial activities of subsidiaries), size, and any other risk-related factors that the Federal Reserve deems appropriate. Bank holding companies with $250 billion or more in total consolidated assets remain fully subject to the Dodd-Frank Act's enhanced prudential standards requirements.

In October 2018, the Federal Reserve and the other Federal bank regulators adopted proposed rules that would tailor the application of the enhanced prudential standards to bank holding companies and depository institutions per the EGRRCPA amendments (the "Tailoring NPRs"). The Tailoring NPRs would assign each U.S. BHC with $100 billion or more in total consolidated assets, as well as its bank subsidiaries, to one of four categories based on its size and five risk-based indicators: (1) cross-jurisdictional activity, (2) weighted short-term wholesale funding, (3) nonbank assets, (4) off-balance sheet exposure, and (5) status as a U.S. global systemically important BHC ("G-SIB"). Under the Tailoring NPRs, Category IV standards would apply to banking organizations with at least $100 billion in total consolidated assets that do not meet any of the thresholds specified for Categories I through III; Category I standards would be applicable to U.S. G-SIBs; Category II standards would be applicable to non-G-SIBs with (a) $700 billion or more in total consolidated assets or (b) at least $100 billion in total consolidated assets and $75 billion or more in cross-jurisdictional activity; and Category III standards would be applicable to banking organizations that are not subject to Category I or Category II standards and that have (a) at least $250 billion in total consolidated assets or (b) at least $100 billion in total consolidated assets and $75 billion or more in any of three indicators: (1) nonbank assets, (2) weighted short-term wholesale funding, or (3) off-balance sheet exposures.

The Federal Reserve staff indicated in connection with the Tailoring NPRs the firms that would fall into each of the four Categories based on data for the second quarter of 2018. According to the Federal Reserve's projections, M&T would be a "Category IV" firm under each of the Tailoring NPRs, and would generally be subject to the same capital and liquidity requirements as firms with less than $100 billion in total consolidated assets, but would also be required to monitor and report certain risk-based indicators. Accordingly, under the Tailoring NPRs, Category IV firms would, among other things, (1) no longer be subject to any Liquidity Coverage Ratio ("LCR") or Net Stable Funding Ratio ("NSFR") requirement (if and when implemented), (2) remain eligible to opt-out of the requirement to recognize most elements of Accumulated Other Comprehensive Income in regulatory capital, (3) no longer be subject to company-run stress testing requirements and (4) be subject to supervisory stress testing on a biennial basis rather than an annual basis. Category IV firms would continue not to be subject to (1) advanced approaches capital requirements, (2) the supplementary leverage ratio and (3) the countercyclical capital buffer. The Tailoring NPRs are subject to modification through the federal rulemaking process in accordance with the Administrative Procedures Act. Other elements of the Tailoring NPRs are discussed in further detail throughout this section.

The ultimate benefits or consequences of EGRRCPA and the Tailoring NPRs on M&T, M&T Bank, Wilmington Trust, N.A. and their respective subsidiaries and activities will be subject to the final form of the Tailoring NPRs and additional rulemakings issued by the Federal Reserve and other federal regulators. M&T cannot predict future changes in the applicable laws, regulations and regulatory agency policies, yet such changes may have a material impact on M&T's business, financial condition or results of operations. M&T will continue to evaluate the impact of any changes in law and any new regulations promulgated, including changes in regulatory costs and fees, modifications to consumer products or disclosures required by the CFPB and the requirements of the enhanced supervision provisions, among others.

Permissible Activities under the BHC Act

In general, the BHCA limits the business of a BHC to banking, managing or controlling banks, and other activities that the Federal Reserve has determined to be so closely related to banking as to be a proper incident thereto. In addition, bank holding companies are expected to serve as a managerial and financial source of strength to their subsidiary depository institutions, including committing resources to support such subsidiaries. This support may be required at times when M&T may not be inclined or able to provide it. In addition, any capital loans by a BHC to a subsidiary bank are subordinate in right of payment to deposits and to certain other indebtedness of such subsidiary bank. In the event of a BHC's bankruptcy, any commitment by the BHC to a federal bank regulatory agency to maintain the capital of a subsidiary bank will be assumed by the bankruptcy trustee and entitled to a priority of payment.

Bank holding companies that qualify and elect to be financial holding companies may engage in any activity, or acquire and retain the shares of a company engaged in any activity, that is either (i) financial in nature or incidental to such financial activity (as determined by the Federal Reserve, by regulation or order, in consultation with the Secretary of the Treasury) or (ii) complementary to a financial activity and does not pose a substantial risk to the safety and soundness of depository institutions or the financial system generally (as solely determined by the Federal Reserve). Activities that are financial in nature include securities underwriting and dealing, insurance underwriting and merchant banking. In order for a financial holding company to commence any new activity or to acquire a company engaged in any activity pursuant to the financial holding company provisions of the BHCA, each insured depository institution subsidiary of the financial holding company must have at least a "satisfactory" rating under the Community Reinvestment Act of 1977 (the "CRA"). See the section captioned "Community Reinvestment Act" included elsewhere in this discussion.

M&T elected to become a financial holding company on March 1, 2011. To maintain financial holding company status, a financial holding company and all of its depository institution subsidiaries must be "well capitalized" and "well managed." The failure to meet such requirements could result in material restrictions on the activities of M&T and may also adversely affect the Company's ability to enter into certain transactions or obtain necessary approvals in connection therewith, as well as loss of financial holding company status.

Distributions

M&T is a legal entity separate and distinct from its banking and other subsidiaries. Historically, the majority of M&T's revenue has been from dividends paid to M&T by its subsidiary banks. M&T Bank and Wilmington Trust, N.A. are subject to laws and regulations imposing restrictions on the amount of dividends they may declare and pay. Future dividend payments to M&T by its subsidiary banks will be dependent on a number of factors, including the earnings and financial condition of each such bank, and are subject to the limitations referred to in note 23 of Notes to Financial Statements filed herewith in Part II, Item 8, "Financial Statements and Supplementary Data," and to other statutory powers of bank regulatory agencies.

An insured depository institution is prohibited from making any capital distribution to its owner, including any dividend, if, after making such distribution, the depository institution fails to meet the required minimum level for any relevant capital measure, including the risk-based capital adequacy and leverage standards discussed herein.

Dividend payments by M&T to its shareholders and common stock repurchases by M&T are subject to the oversight of the Federal Reserve. As described below in this section under "Stress Testing and Capital Plan Review," dividends and common stock repurchases (net of any new stock issuances as per a capital plan) generally may only be paid or made under a capital plan as to which the Federal Reserve has not objected.

Capital Requirements

M&T and its subsidiary banks are required to comply with applicable capital adequacy standards established by the federal banking agencies (the "Capital Rules"), which are based on the Basel Committee's December 2010 final capital framework for strengthening international capital standards, referred to as "Basel III".

Among other matters, the Capital Rules impose a capital measure called Common Equity Tier 1 Capital ("CET1") to which most deductions/adjustments to regulatory capital measures must be made. In addition, the Capital Rules specify that Tier 1 capital consists of CET1 and "Additional Tier 1 capital" instruments meeting certain specified requirements. Pursuant to the Capital Rules, the minimum capital ratios are as follows:

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

In calculating regulatory capital ratios M&T must assign risk weights to the Company's assets and off-balance sheet items. M&T has an ongoing process to review data elements associated with certain assets that from time to time may affect how specific assets are classified and could lead to increases or decreases of the regulatory risk weights assigned to such assets.

The Capital Rules also impose a “capital conservation buffer” (“CCB”), composed entirely of CET1, on top of the three minimum risk-weighted asset ratios listed above. The capital conservation buffer is designed to absorb losses during periods of economic stress. As of January 1, 2019, the CCB has been fully phased-in and is 2.5%. Thus, the effective minimum ratios applicable to M&T are (i) CET1 to risk-weighted assets of at least 7%, (ii) Tier 1 capital to risk-weighted assets of at least 8.5% and (iii) total capital to risk-weighted assets of at least 10.5%. Banking institutions that fail to meet the effective minimum ratios once the CCB is taken into account will be subject to constraints on capital distributions, including dividends and share repurchases, and certain discretionary executive compensation. The severity of the constraints depends on the amount of the shortfall and the institution’s “eligible retained income” (that is, four quarter trailing net income, net of distributions and tax effects not reflected in net income). On April 10, 2018, the Federal Reserve issued a proposal designed to create a single, integrated capital requirement by combining the quantitative assessment of firms’ capital plans with the CCB requirement. Details of this proposal are discussed under “— Stress Testing and Capital Plan Review” herein. Although the proposal, if adopted, would change the way in which the minimum ratios are calculated, firms would continue to be subject to progressively more stringent constraints on capital actions as they approach the minimum ratios.

CET1 consists of common stock instruments that meet the eligibility criteria in the Capital Rules, including common stock and related surplus, net of treasury stock, retained earnings, certain minority interests and, for certain firms, accumulated other comprehensive income (“AOCI”). As permitted under the Capital Rules, M&T made a one-time permanent election to neutralize certain AOCI components, with the result that those components are not recognized in M&T’s CET1. The Capital Rules also preclude certain hybrid securities, such as trust preferred securities, from inclusion in bank holding companies’ Tier 1 capital. Thus, trust preferred securities no longer included in M&T’s Tier 1 capital may nonetheless be included as a component of Tier 2 capital on a permanent basis and irrespective of whether such securities otherwise meet the revised definition of Tier 2 capital set forth in the Capital Rules. M&T’s regulatory capital ratios are presented in note 23 of Notes to Financial Statements filed herewith in Part II, Item 8, “Financial Statements and Supplementary Data.”

The Capital Rules provide for a number of deductions from and adjustments to CET1. These include, for example, the requirement that mortgage servicing rights, certain deferred tax assets, and significant investments in non-consolidated financial entities be deducted from CET1 to the extent that any one such category exceeds 10% of CET1 or all such items, in the aggregate, exceed 15% of CET1. The deductions and other adjustments to CET1 capital generally became fully phased-in on January 1, 2018, although, as discussed below, the federal banking regulators have extended the transitional treatment for certain items.

In September 2017, the U.S. banking regulators proposed to revise and simplify the deductions for these items for banking organizations, such as M&T, that are not subject to the “advanced approaches” under the Capital Rules. In November 2017, the U.S. banking regulators revised the Capital Rules to extend the current transitional treatment of the deductions described above for non-advanced approaches banking organizations until the September 2017 proposal is finalized.

In December 2017, the Basel Committee published standards that it described as the finalization of the Basel III post-crisis regulatory reforms (the standards are commonly referred to as “Basel IV”). Among other things, these standards revise the Basel Committee’s standardized approach for credit risk (including by recalibrating risk weights and introducing new capital requirements for certain “unconditionally cancellable commitments,” such as unused credit card lines of credit) and provides a new standardized approach for operational risk capital. Under the Basel framework, these standards will generally be effective on January 1, 2022, with an aggregate output floor phasing in through January 1, 2027. Under the current U.S. capital rules, operational risk capital requirements and a capital floor apply only to advanced approaches institutions, and not to the Company. The impact of Basel IV will depend on the manner in which it is implemented by the U.S. banking regulators.

Stress Testing and Capital Plan Review

As part of the enhanced prudential requirements applicable to systemically important financial institutions, the Federal Reserve conducts annual analyses of bank holding companies with at least $100 billion in total consolidated assets, such as M&T, to determine whether the companies have sufficient capital on a consolidated basis necessary to absorb losses in three economic and financial scenarios generated by the Federal Reserve: baseline, adverse and severely adverse scenarios (although, in light of EGRRCPA's eliminating the statutory requirement for the adverse scenario, on January 8, 2019, the Federal Reserve proposed amendments to its stress testing rules that would, among other things, eliminate the adverse scenario). M&T is also currently required to conduct its own stress analysis (together with the Federal Reserve's stress analysis, the "stress tests") to assess the potential impact on M&T of the economic and financial conditions used as part of the Federal Reserve's annual stress analysis. The Federal Reserve may also use, and require companies to use, additional components in the adverse and severely adverse scenarios or additional or more complex scenarios designed to capture salient risks to specific business groups. M&T Bank is also required to conduct annual stress testing using the same economic and financial scenarios as M&T and report the results to the Federal Reserve. A summary of results of the Federal Reserve's analysis under the adverse and severely adverse stress scenarios are publicly disclosed, and bank holding companies subject to the rules, including M&T, must disclose a summary of the company-run severely adverse stress test results. M&T is required to include in its disclosure a summary of the severely adverse scenario stress test conducted by M&T Bank. Under the Tailoring NPRs, Category IV firms, including M&T, would be subject to supervisory stress testing every other year, rather than annually, and would no longer be subject to EGRRCPA mandated company-run stress testing requirements. They would, however, remain subject to the quantitative review of their capital plans under CCAR, to required capital plan submissions, and to the associated reporting requirements.

In addition, bank holding companies with total consolidated assets of $100 billion or more, such as M&T, must submit annual capital plans for approval as part of the Federal Reserve's CCAR process. Covered bank holding companies may execute capital actions, such as paying dividends and repurchasing stock, only in accordance with a capital plan that has been reviewed and approved by the Federal Reserve (or any approved amendments to such plan). The comprehensive capital plans include a view of capital adequacy under various scenarios — including a BHC-defined baseline scenario, a baseline scenario provided by the Federal Reserve, at least one BHC-defined stress scenario, and adverse and severely adverse scenarios provided by the Federal Reserve. The CCAR process is intended to help ensure that these bank holding companies have robust, forward-looking capital planning processes that account for each company's unique risks and that permit continued operations during times of economic and financial stress. Each of the bank holding companies participating in the CCAR process is also required to collect and report certain related data to the Federal Reserve on a quarterly basis to allow the Federal Reserve to monitor progress against the approved capital plans. Each capital plan must include a view of capital adequacy under the stress test scenarios described above. In connection with the release of the Tailoring NPRs, the Federal Reserve noted that it expects to revise its guidance relating to capital planning to align with the proposed categories of standards set forth in the Tailoring NPRs, and the impact of the future proposal on M&T and its capital planning process will depend on the final form of the Federal Reserve's revised guidance.

The Federal Reserve may object to a capital plan if the plan does not show that the covered BHC will maintain sufficient regulatory capital ratios on a pro forma basis under expected and stressful conditions throughout the nine-quarter planning horizon covered by the capital plan. The rules also provide that a covered BHC may not make a capital distribution unless after giving effect to the distribution it will meet all minimum regulatory capital ratios. The Federal Reserve also incorporates an assessment of the qualitative aspects of the firm's capital planning process into regular, ongoing supervisory activities and through targeted, horizontal assessments of particular aspects of capital planning. M&T's annual CCAR capital plan is currently due in April each year and the Federal Reserve publishes the results of its supervisory CCAR review of M&T's capital plan by June 30 of each year.

In addition to other limitations, M&T's ability to make any capital distributions is contingent on the Federal Reserve's non-objection to M&T's capital plan. The Federal Reserve generally limits a BHC's ability to make quarterly capital distributions – that is, dividends and share repurchases, if the amount of the BHC's actual cumulative quarterly capital issuances of instruments that qualify as regulatory capital are less than the BHC had indicated in its submitted capital plan as to which it received a non-objection from the Federal Reserve.

As noted above, on April 10, 2018, the Federal Reserve issued a proposal designed to create a single, integrated capital requirement by combining the quantitative assessment of CCAR with the CCB requirement. If adopted, the proposal would replace the current static 2.5% CCB with a stress capital buffer ("SCB") requirement. The SCB, subject to a minimum of 2.5%, would reflect stressed losses in the supervisory severely adverse scenario of the Federal Reserve's supervisory stress tests and would also include four quarters of planned common stock dividends. The proposal would also introduce a stress leverage buffer ("SLB") requirement, similar to the SCB, which would apply to the Tier 1 leverage ratio. In addition, the proposal would eliminate the quantitative objection provisions of CCAR but would require a BHC to reduce its planned capital distributions if those distributions would not be consistent with the applicable capital buffer constraints based on the BHC's own baseline scenario projections. The Federal Reserve has stated that it intends to propose revisions to the stress buffer requirements that would be applicable to Category IV BHC to align with the proposed two-year supervisory stress testing cycle for Category IV BHC.

Liquidity

Historically, regulation and monitoring of bank and BHC liquidity has been addressed as a supervisory matter, both in the U.S. and internationally, without required formulaic measures. However, in January 2016 M&T became subject to final rules adopted by the Federal Reserve and other banking regulators ("Final LCR Rule") implementing a U.S. version of the Basel Committee's LCR requirement. The LCR requirement is intended to ensure that banks hold sufficient amounts of so-called "high quality liquid assets" ("HQLA") to cover the anticipated net cash outflows during a hypothetical acute 30-day stress scenario. The LCR is the ratio of an institution's amount of HQLA (the numerator) over projected net cash out-flows over the 30-day horizon (the denominator), in each case, as calculated pursuant to the Final LCR Rule. The Final LCR Rule requires a subject institution to maintain an LCR equal to at least 100% in order to satisfy this regulatory requirement. Only specific classes of assets, including U.S. Treasury securities, other U.S. government obligations and agency mortgaged-backed securities, qualify under the rule as HQLA, with classes of assets deemed relatively less liquid and/or subject to greater degree of credit risk subject to certain haircuts and caps for purposes of calculating the numerator under the Final LCR Rule. The total net cash outflows amount is determined under the rule by applying prescribed hypothetical outflow and inflow rates, which reflect standardized stressed assumptions, against the balances of the banking organization's funding sources, obligations, transactions and assets over the 30-day stress period. Inflows that can be included to offset outflows are limited to 75% of outflows (which effectively means that banking organizations must hold high-quality liquid assets equal to 25% of outflows even if outflows perfectly match inflows over the stress period). The LCR rule, following the threshold amendments under EGRRCPA, currently applies in a modified, less stringent, form to bank holding companies, such as M&T, having $100 billion or more but less than $250 billion in total consolidated assets and less than $10 billion in total on-balance sheet foreign exposure. As of January 1, 2017, the Final LCR Rule has been fully phased-in, and M&T has been required to publicly disclose its LCR since October 2018. As noted above, under the Tailoring NPRs, Category IV firms, including M&T, would no longer be subject to any LCR requirement.

The Basel III framework also included a second standard, referred to as the NSFR, which is designed to promote more medium- and long-term funding of the assets and activities of banks over a one-year time horizon. In May 2016, the Federal Reserve and other federal banking regulators issued a proposed rule that would implement the NSFR for large U.S. banking organizations. Under the proposed rule, the most stringent requirements would apply to bank holding companies with $250 billion or more in total consolidated assets or $10 billion or more in on-balance sheet foreign exposure, and would require such organizations to maintain a minimum NSFR of 1.0 on an ongoing basis, calculated by dividing the organization's available stable funding by its required stable funding. Bank holding companies with less than $250 billion, but more than $50 billion, in total consolidated assets and less than $10 billion in on-balance sheet foreign exposure, such as M&T, would be subject to a modified NSFR requirement. Originally proposed to take effect in January 2018, the rule has yet to be finalized. As noted above, under the Tailoring NPRs, Category IV firms, including M&T, would no longer be subject to any NSFR requirement.

Under the Tailoring NPRs, Category IV firms, including M&T, would remain subject to liquidity risk management requirements, but these requirements would be tailored such that these firms would be required to: (i) calculate collateral positions monthly, as opposed to weekly as is currently required; (ii) establish a more limited set of liquidity risk limits than are currently required; and (iii) monitor fewer elements of intraday liquidity risk exposures than are currently monitored. These firms would also be subject to liquidity stress testing quarterly, rather than monthly, and would be required to report liquidity data on the FR 2052a on a monthly basis. The liquidity buffer requirements for these firms would not change.

Cross Guaranty Provision

The cross guaranty provisions in the Federal Deposit Insurance Act ("FDIA") were enacted by Congress in the Financial Institutions, Reform, Recovery and Enforcement Act of 1989 ("FIRREA") and require each insured depository institution owned by the same BHC to be financially responsible for the failure or resolution costs of any affiliated insured institution. Generally, the amount of the cross guaranty liability is equal to the estimated loss to the DIF for the resolution of the affiliated institution(s) in default. The FDIC's claim under the cross guaranty provision is superior to claims of shareholders of the insured depository institution or its BHC and to most claims arising out of obligations or liabilities owed to affiliates of the institution, but is subordinate to claims of depositors, secured creditors and holders of subordinated debt (other than affiliates) of the commonly controlled insured depository institution. The FDIC may decline to enforce the cross guaranty provision if it determines that a waiver is in the best interest of the DIF.

Volcker Rule

On December 10, 2013, the federal banking regulators and the SEC adopted the so-called Volcker Rule to implement the provisions of the Dodd-Frank Act limiting proprietary trading and investing in and sponsoring certain hedge funds and private equity funds (defined as "covered funds" in the Volcker Rule). The Company does not engage in any significant amount of proprietary trading as defined in the Volcker Rule and implemented the required procedures for those areas in which trading does occur. The covered funds limits are imposed through a conformance period that ended

in July 2017. During 2016, to comply with requirements of the Volcker Rule, the Company sold the collateralized debt obligations that had been held in the available-for-sale investment securities portfolio. Further, the Company sought, and received, from the Federal Reserve, a five-year extension (to July 21, 2022) to either divest or terminate its investment in one venture capital fund. In July 2018, the Federal Reserve, OCC, FDIC, CFTC and SEC issued a notice of proposed rulemaking intended to tailor the application of the Volcker Rule based on the size and scope of a banking entity's trading activities and to clarify and amend certain definitions, requirements and exemptions. The ultimate impact of any amendments to the Volcker Rule will depend on, among other things, further rulemaking and implementation guidance from the relevant U.S. federal regulatory agencies and the development of market practices and standards.

Safety and Soundness Standards

Guidelines adopted by the federal bank regulatory agencies pursuant to the FDIA establish general standards relating to internal controls, information systems, internal audit systems, loan documentation, credit underwriting, interest rate exposure, asset growth, compensation, fees and benefits. In general, these guidelines require, among other things, appropriate systems and practices to identify and manage the risk and exposures specified in the guidelines. Additionally, the agencies adopted regulations that authorize, but do not require, an agency to order an institution that has been given notice by an agency that it is not satisfying any of such safety and soundness standards to submit a compliance plan. If, after being so notified, an institution fails to submit an acceptable compliance plan or fails in any material respect to implement an acceptable compliance plan, the agency must issue an order directing action to correct the deficiency and may issue an order directing other actions of the types to which an undercapitalized institution is subject. If an institution fails to comply with such an order, the agency may seek to enforce such order in judicial proceedings and to impose civil money penalties.

Limits on Undercapitalized Depository Institutions

The FDIA establishes a system of regulatory remedies to resolve the problems of undercapitalized institutions, referred to as the prompt corrective action. The federal banking regulators have established five capital categories ("well-capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized" and "critically undercapitalized") and must take certain mandatory supervisory actions, and are authorized to take other discretionary actions, with respect to institutions which are undercapitalized, significantly undercapitalized or critically undercapitalized. The severity of these mandatory and discretionary supervisory actions depends upon the capital category in which the institution is placed. The FDIC has specified by regulation the relevant capital levels for each category. The FDIA's prompt corrective action provisions only apply to depository institutions and not to bank holding companies. The Federal Reserve's regulations applicable to bank holding companies separately define "well capitalized." A financial holding company that is not well-capitalized and well-managed (or whose bank subsidiaries are not well capitalized and well managed) under applicable prompt corrective action standards may be restricted in certain of its activities and ultimately may lose financial holding company status. Under existing rules, an institution that is not an advanced approaches institution is deemed to be "well capitalized" if it has (i) a CET1 ratio of at least 6.5%, (ii) a Tier 1 capital ratio of at least 8%, (iii) a Total capital ratio of at least 10%, and (iv) a Tier 1 leverage ratio of at least 5%.

An institution that is categorized as undercapitalized, significantly undercapitalized or critically undercapitalized is required to submit an acceptable capital restoration plan to its appropriate federal banking regulator. Under the FDIA, in order for the capital restoration plan to be accepted by the appropriate federal banking agency, a BHC must guarantee that a subsidiary depository institution will comply with its capital restoration plan, subject to certain limitations. The BHC must also provide appropriate assurances of performance. An undercapitalized institution is also generally prohibited from increasing its average total assets, accepting brokered deposits or offering interest rates on any deposits significantly higher than prevailing market rates, making acquisitions, establishing any branches or engaging in any new line of business, except in accordance with an accepted capital restoration plan or with the approval of the FDIC. Institutions that are significantly undercapitalized or undercapitalized and either fail to submit an acceptable capital restoration plan or fail to implement an approved capital restoration plan may be subject to a number of requirements and restrictions, including orders to sell sufficient voting stock to become adequately capitalized, requirements to reduce total assets and cessation of receipt of deposits from correspondent banks. Critically undercapitalized depository institutions failing to submit or implement an acceptable capital restoration plan are subject to appointment of a receiver or conservator.

Transactions with Affiliates

There are various legal restrictions on the extent to which M&T and its non-bank subsidiaries may borrow or otherwise obtain funding from M&T Bank and Wilmington Trust, N.A. In general, Sections 23A and 23B of the Federal Reserve Act and Federal Reserve Regulation W require that any "covered transaction" by M&T Bank and Wilmington Trust, N.A. (or any of their respective subsidiaries) with an affiliate must in certain cases be secured by designated amounts of specified collateral and must be limited as follows: (a) in the case of any single such affiliate, the aggregate amount of covered transactions of the insured depository institution and its subsidiaries may not exceed 10% of the capital stock and surplus of such insured depository institution, and (b) in the case of all affiliates, the aggregate amount of covered transactions of an insured depository institution and its subsidiaries may not exceed 20% of the capital stock and surplus of such insured depository institution. "Covered transactions" are defined by statute to include, among other things, a loan or extension of credit, as well as a purchase of securities issued by an affiliate, a purchase of assets (unless otherwise exempted by the Federal Reserve) from the affiliate, certain derivative transactions that create a credit exposure to an affiliate, the acceptance of securities issued by the affiliate as collateral for a loan, and the issuance of a guarantee, acceptance or letter of credit on behalf of an affiliate. All covered transactions, including certain additional transactions (such as transactions with a third party in which an affiliate has a financial interest), must be conducted on market terms.

FDIC Insurance Assessments

Deposit Insurance Assessments. M&T Bank and Wilmington Trust, N.A. deposits are insured by the DIF of the FDIC up to the limits set forth under applicable law. The FDIC imposes a risk-based premium assessment system that determines assessment rates for financial institutions. Deposit insurance assessments are based on average total assets minus average tangible equity. For larger institutions, such as M&T Bank, the FDIC uses a performance score and a loss-severity score that are used to calculate an initial assessment rate. In calculating these scores, the FDIC uses a bank's capital level and supervisory ratings and certain financial measures to assess an institution's ability to withstand asset-related stress and funding-related stress. The FDIC has the ability to make discretionary adjustments to the total score based upon significant risk factors that are not adequately captured in the calculations. Under the current system, premiums are assessed quarterly.

In March 2016, the FDIC adopted a final rule that imposes a surcharge of 4.5 cents per $100 of assessment base, after making certain adjustments, for depository institutions with total assets of at least $10 billion, including M&T Bank. The surcharge became effective July 1, 2016 and continued through September 30, 2018, when the reserve ratio of the DIF first reached 1.36%, exceeding the statutorily required minimum of 1.35%. Because the statutory minimum was reached, the surcharge no longer applies. M&T Bank recognized $64 million of expense related to its FDIC assessment and large bank surcharge and Wilmington Trust, N.A. recognized $493 thousand of FDIC insurance expense in 2018. Beginning in 2018, amounts paid for FDIC deposit insurance are no longer deductible for purposes of determining federal taxable income.

Under the FDIA, insurance of deposits may be terminated by the FDIC upon a finding that the institution has engaged in unsafe and unsound practices, is in an unsafe or unsound condition to continue operations, or has violated any applicable law, regulation, rule, order or condition imposed by the FDIC.

FICO Assessments. In addition, the Deposit Insurance Funds Act of 1996 authorized the Financing Corporation ("FICO") to impose assessments on DIF applicable deposits in order to service the interest on FICO's bond obligations from deposit insurance fund assessments. The amount assessed on individual institutions by FICO is in addition to the amount, if any, paid for deposit insurance according to the FDIC's risk-related assessment rate schedules. FICO assessment rates may be adjusted quarterly to reflect a change in assessment base. M&T Bank recognized $4 million of expense related to its FICO assessments and Wilmington Trust, N.A. recognized $60 thousand of such expense in 2018.

Acquisitions

The BHCA requires every BHC to obtain the prior approval of the Federal Reserve before: (1) it may acquire direct or indirect ownership or control of any voting shares of any bank or savings institution, if after such acquisition, the BHC will directly or indirectly own or control 5% or more of the voting shares of the institution; (2) it or any of its subsidiaries, other than a bank, may acquire all or substantially all of the assets of any bank or savings institution; or (3) it may merge or consolidate with any other BHC. Since July 2011, financial holding companies and bank holding companies with consolidated assets exceeding $50 billion, such as M&T, have been required to (i) obtain prior approval from the Federal Reserve before acquiring certain nonbank financial companies with assets exceeding $10 billion and (ii) provide prior written notice to the Federal Reserve before acquiring direct or indirect ownership or control of any voting shares of any company having consolidated assets of $10 billion or more. EGRRCPA amended this requirement to apply only to bank holding companies with consolidated assets exceeding $250 billion, effective November 24, 2019.

The BHCA further provides that the Federal Reserve may not approve any transaction that would result in a monopoly or would be in furtherance of any combination or conspiracy to monopolize or attempt to monopolize the business of banking in any section of the United States, or the effect of which may be substantially to lessen competition or to tend to create a monopoly in any section of the country, or that in any other manner would be in restraint of trade, unless the anticompetitive effects of the proposed transaction are clearly outweighed by the public interest in meeting the convenience and needs of the community to be served. The Federal Reserve is also required to consider the financial and managerial resources and future prospects of the bank holding companies and banks concerned and the convenience and needs of the community to be served. Consideration of financial resources generally focuses on capital adequacy, and consideration of convenience and needs issues includes the parties' performance under the CRA and compliance with consumer protection laws. The Federal Reserve must take into account the institutions' effectiveness in combating money laundering. In addition, pursuant to the Dodd-Frank Act, the BHCA was amended to require the Federal Reserve, when evaluating a proposed transaction, to consider the extent to which the transaction would result in greater or more concentrated risks to the stability of the United States banking or financial system.

Executive and Incentive Compensation

Guidelines adopted by several federal banking agencies prohibit excessive compensation as an unsafe and unsound practice and describe compensation as "excessive" when the amounts paid are unreasonable or disproportionate to the services performed by an executive officer, employee, director or principal stockholder. The Federal Reserve issued comprehensive guidance on incentive compensation policies (the “Incentive Compensation Guidance”) intended to ensure that the incentive compensation policies of banking organizations do not undermine the safety and soundness of such organizations by encouraging excessive risk-taking. The Incentive Compensation Guidance, which covers all employees that have the ability to materially affect the risk profile of an organization, either individually or as part of a group, is based upon the key principles that a banking organization’s incentive compensation arrangements should (i) provide incentives that do not encourage risk-taking beyond the organization’s ability to effectively identify and manage risks, (ii) be compatible with effective internal controls and risk management, and (iii) be supported by strong corporate governance, including active and effective oversight by the organization’s board of directors. These three principles are incorporated into the proposed joint compensation regulations under the Dodd-Frank Act, discussed below. Any deficiencies in compensation practices that are identified may be incorporated into the organization’s supervisory ratings, which can affect its ability to make acquisitions or perform other actions. The Incentive Compensation Guidance provides that enforcement actions may be taken against a banking organization if its incentive compensation arrangements or related risk-management control or governance processes pose a risk to the organization’s safety and soundness and the organization is not taking prompt and effective measures to correct the deficiencies.

The Dodd-Frank Act requires the federal bank regulatory agencies and the SEC to establish joint regulations or guidelines prohibiting incentive-based payment arrangements at specified regulated entities having at least $1 billion in total assets, such as M&T and M&T Bank. In June 2016, the agencies proposed rules that would establish general qualitative requirements applicable to all covered entities, additional specific requirements for entities with total consolidated assets of at least $50 billion, such as M&T, and further, more stringent requirements for those with total consolidated assets of at least $250 billion. Under the proposal, the general qualitative requirements would include (i) prohibiting incentive arrangements that encourage inappropriate risks by providing excessive compensation; (ii) prohibiting incentive arrangements that encourage inappropriate risks that could lead to a material financial loss; (iii) establishing requirements for performance measures to appropriately balance risk and reward; (iv) requiring board of director oversight of incentive arrangements; and (v) mandating appropriate record-keeping. For larger financial institutions, including M&T, the proposed revised regulations would also introduce additional requirements applicable only to “senior executive officers” and “significant risk-takers” (as defined in the proposed regulations), including (i) limits on performance measures and leverage relating to performance targets; (ii) minimum deferral periods; and (iii) subjecting incentive compensation to possible downward adjustment, forfeiture and clawback. If the final regulations are adopted in the form proposed, they will impose limitations on the manner in which M&T may structure compensation for its executives.

In October 2016, the NYSDFS issued guidance emphasizing that its regulated banking institutions, including M&T Bank, must ensure that any incentive compensation arrangements tied to employee performance indicators are subject to effective risk management, oversight and control.

The scope and content of the banking regulators’ policies on incentive compensation are continuing to develop and are likely to continue evolving in the future. It cannot be determined at this time whether compliance with such policies will adversely affect the ability of M&T and its subsidiaries to hire, retain and motivate their key employees.

Resolution Planning

Pursuant to the Dodd-Frank Act, as amended by EGRRCPA, bank holding companies with consolidated assets of $100 billion or more, such as M&T, are currently required to report periodically to the Federal Reserve and the FDIC a resolution plan for their rapid and orderly resolution in the event of material financial distress or failure. M&T’s resolution plan must, among other things, ensure that its depository institution subsidiaries are adequately protected from risks arising from its other subsidiaries. The regulation adopted by the Federal Reserve and FDIC sets specific standards for the resolution plans, including requiring a strategic analysis of the plan's components, a description of the range of specific actions the company proposes to take in resolution, and a description of the company's organizational structure, material entities, core business lines, interconnections and interdependencies, and management information systems, among other elements. The most recent resolution plan for M&T was filed in December 2017. If the Federal Reserve and the FDIC determine that either of M&T's or M&T Bank's plans are not credible and M&T and/or M&T Bank does not cure the deficiencies, the Federal Reserve and the FDIC may jointly impose more stringent capital, leverage or liquidity requirements or restrictions on growth, activities or operations of the Company or M&T Bank or may jointly order the Company or M&T Bank to divest assets or operations to facilitate an orderly resolution in the event of failure. In connection with the release of the Tailoring NPRs, the Federal Reserve noted that it expects to release a proposal to amend, with the FDIC, their joint resolution plan rule to address the applicability of resolution plan requirements for U.S. bank holding companies with between $100 billion and $250 billion in total consolidated assets, including M&T, and to adjust the scope and applicability of resolution plan requirements for firms that remain subject to them.

The FDIC has separately implemented a resolution planning rule that currently requires insured depository institutions with $50 billion or more in total assets, such as M&T Bank, to submit to the FDIC periodic plans for resolution in the event of the institution's failure. M&T Bank submitted its most recent resolution plan to the FDIC in June 2018. In August 2018, the FDIC announced that it has extended the next filing due date for insured depository institution resolution plan submissions to no sooner than July 1, 2020.

Insolvency of an Insured Depository Institution or a Bank Holding Company

If the FDIC is appointed as conservator or receiver for an insured depository institution such as M&T Bank or Wilmington Trust, N.A., upon its insolvency or in certain other events, the FDIC has the power:

- to transfer any of the depository institution's assets and liabilities to a new obligor, including a newly formed "bridge" bank without the approval of the depository institution's creditors;
- to enforce the terms of the depository institution's contracts pursuant to their terms without regard to any provisions triggered by the appointment of the FDIC in that capacity; or
- to repudiate or disaffirm any contract or lease to which the depository institution is a party, the performance of which is determined by the FDIC to be burdensome and the disaffirmance or repudiation of which is determined by the FDIC to promote the orderly administration of the depository institution.

In addition, under federal law, the claims of holders of domestic deposit liabilities and certain claims for administrative expenses against an insured depository institution would be afforded a priority over other general unsecured claims against such an institution, including claims of debt holders of the institution, in the "liquidation or other resolution" of such an institution by any receiver. As a result, whether or not the FDIC ever sought to repudiate any debt obligations of M&T Bank or Wilmington Trust, N.A., the debt holders would be treated differently from, and could receive, if anything, substantially less than, the depositors of the bank. The Dodd-Frank Act created a new resolution regime (known as "orderly liquidation authority") for systemically important financial companies, including bank holding companies and their affiliates. Under the orderly liquidation authority, the FDIC may be appointed as receiver for the systemically important institution, and its failed subsidiaries, for purposes of liquidating the entity if, among other conditions, it is determined at the time of the institution's failure that it is in default or in danger of default and the failure poses a risk to the stability of the U.S. financial system.

If the FDIC is appointed as receiver under the orderly liquidation authority, then the powers of the receiver, and the rights and obligations of creditors and other parties who have dealt with the institution, would be determined under the Dodd-Frank Act provisions, and not under the insolvency law that would otherwise apply. The powers of the receiver under the orderly liquidation authority were based on the powers of the FDIC as receiver for depository institutions under the FDIA. However, the provisions governing the rights of creditors under the orderly liquidation authority were modified in certain respects to reduce disparities with the treatment of creditors' claims under the U.S. Bankruptcy Code as compared to the treatment of those claims under the new authority. Nonetheless, substantial differences in the rights of creditors exist as between these two regimes, including the right of the FDIC to disregard the strict priority of creditor claims in some circumstances, the use of an administrative claims procedure to determine creditors' claims (as opposed to the judicial procedure utilized in bankruptcy proceedings), and the right of the FDIC to transfer claims to a "bridge" entity.

An orderly liquidation fund will fund such liquidation proceedings through borrowings from the Treasury Department and risk-based assessments made, first, on entities that received more in the resolution than they would have received in liquidation to the extent of such excess, and second, if necessary, on bank holding companies with total consolidated assets of $50 billion or more, such as M&T. If an orderly liquidation is triggered, M&T could face assessments for the orderly liquidation fund.

The FDIC has developed a strategy under the orderly liquidation authority referred to as the "single point of entry" strategy, under which the FDIC would resolve a failed financial holding company by transferring its assets (including shares of its operating subsidiaries) and, potentially, very limited liabilities to a "bridge" holding company; utilize the resources of the failed financial holding company to recapitalize the operating subsidiaries; and satisfy the claims of unsecured creditors of the failed financial holding company and other claimants in the receivership by delivering securities of one or more new financial companies that would emerge from the bridge holding company. Under this strategy, management of the failed financial holding company would be replaced and shareholders and creditors of the failed financial holding company would bear the losses resulting from the failure.

Depositor Preference

Under federal law, depositors and certain claims for administrative expenses and employee compensation against an insured depository institution would be afforded a priority over other general unsecured claims against such an institution in the "liquidation or other resolution" of such an institution by any receiver. If an insured depository institution fails, insured and uninsured depositors, along with the FDIC, will have priority in payment ahead of unsecured, non-deposit creditors, including depositors whose deposits are payable only outside of the United States and the parent BHC, with respect to any extensions of credit they have made to such insured depository institution.

Financial Privacy and Cyber Security

The federal banking regulators have adopted rules that limit the ability of banks and other financial institutions to disclose non-public information about consumers to non-affiliated third parties. These limitations require disclosure of privacy policies to consumers and, in some circumstances, allow consumers to prevent disclosure of certain personal information to a non-affiliated third party. These regulations affect how consumer information is transmitted through diversified financial companies and conveyed to outside vendors. In addition, consumers may also prevent disclosure of certain information among affiliated companies that is assembled or used to determine eligibility for a product or service, such as that shown on consumer credit reports and asset and income information from applications. Consumers also have the option to direct banks and other financial institutions not to share information about transactions and experiences with affiliated companies for the purpose of marketing products or services. Federal law makes it a criminal offense, except in limited circumstances, to obtain or attempt to obtain customer information of a financial nature by fraudulent or deceptive means.

In October 2016, the federal banking regulators jointly issued an advance notice of proposed rulemaking on enhanced cyber risk management standards that are intended to increase the operational resilience of large and interconnected entities under their supervision. If established, the enhanced cyber risk management standards would be designed to help reduce the potential impact of a cyber-attack or other cyber-related failure on the financial system. The advance notice of proposed rulemaking addresses five categories of cyber standards: (1) cyber risk governance; (2) cyber risk management; (3) internal dependency management; (4) external dependency management; and (5) incident response, cyber resilience, and situational awareness.

In March 2017, the NYSDFS implemented regulations requiring financial institutions regulated by the NYSDFS, including M&T Bank, to, among other things, (i) establish and maintain a cyber security program designed to ensure the confidentiality, integrity and availability of their information systems; (ii) implement and maintain a written cyber security policy setting forth policies and procedures for the protection of their information systems and nonpublic information; and (iii) designate a Chief Information Security Officer. M&T Bank is in full compliance with these requirements.

Many state regulators have been increasingly active in implementing privacy and cybersecurity standards and regulations, including implementing or modifying their data breach notification and data privacy requirements.

Consumer Protection Laws and the Consumer Financial Protection Bureau Supervision

In connection with their respective lending and leasing activities, M&T Bank, Wilmington Trust, N.A. and certain of their subsidiaries, are each subject to a number of federal and state laws designed to protect borrowers and promote lending to various sectors of the economy. Such laws include: the Equal Credit Opportunity Act, the Fair Credit Reporting Act, the Fair and Accurate Credit Transactions Act, the Truth in Lending Act, the Home Mortgage Disclosure Act, the Electronic Fund Transfer Act, the Real Estate Settlement Procedures Act, the Servicemembers Civil Relief Act, and various state law counterparts. Furthermore, the CFPB has issued integrated disclosure requirements under the Truth in Lending Act and the Real Estate Settlement Procedures Act that relate to the provision of disclosures to borrowers. There are also consumer protection laws governing deposit taking activities (e.g. Truth in Savings Act), as well securities and insurance laws governing certain aspects of the Company’s consolidated operations.

The Dodd-Frank Act established the CFPB with broad powers to supervise and enforce most federal consumer protection laws. The CFPB has broad rule-making authority for a wide range of consumer protection laws that apply to all banks and savings institutions, including the authority to prohibit “unfair, deceptive or abusive” acts and practices. The CFPB has examination and enforcement authority over all banks and savings institutions with more than $10 billion in assets, including M&T Bank.

One of the important rules in governing deposits is the Electronic Fund Transfer Act which, among other things, prohibits financial institutions from charging consumers fees for paying overdrafts on automated teller machines (“ATM”) and one-time debit card transactions, unless a consumer consents, or opts in, to the overdraft service for those type of transactions. If a consumer does not opt in, any ATM transaction or one-time debit card transaction sent for approval that exceeds the customer’s available balance will be declined. Overdrafts on other types of transactions (e.g. checks, recurring debit card transactions and ACH transactions) are not covered by this rule. Before opting in, the consumer must be provided a notice that explains the financial institution's overdraft services, including the fees associated with the service, and the consumer's choices. Financial institutions must provide consumers who do not opt in with the same account terms, conditions and features (including pricing) that they provide to consumers who do opt in.

The CFPB issued final rules that change the reporting requirements for lenders under the Home Mortgage Disclosure Act. The new rules, which went into effect on January 1, 2018, expand the range of transactions subject to the requirements to include most securitized residential mortgage loans and credit lines. The rules also increased the overall amount of data required to be collected and submitted, including additional data points about loans and borrowers.

In addition, the Dodd-Frank Act permits states to adopt consumer protection laws and standards that are more stringent than those adopted at the federal level and, in certain circumstances, permits state attorneys general to enforce compliance with both the state and federal laws and regulations.

Community Reinvestment Act

The CRA is intended to encourage depository institutions to help meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods, consistent with safe and sound operations. CRA examinations are conducted by the federal agencies that are responsible for supervising depository institutions: the Federal Reserve, the FDIC and the OCC. A financial institution's performance in helping to meet the credit needs of its community is evaluated in the context of information about the institution (capacity, constraints and business strategies), its community (demographic and economic data, lending, investment, and service opportunities), and its competitors and peers. Upon completion of a CRA examination, an overall CRA Rating is assigned using a four-tiered rating system. These ratings are: "Outstanding," "Satisfactory," "Needs to Improve" and "Substantial Noncompliance." The CRA evaluation is used in evaluating applications for future approval of bank activities including mergers, acquisitions, charters, branch openings and deposit facilities. M&T Bank has a current rating of "Outstanding." M&T Bank is also subject to New York State CRA examination and is assessed using a 1 to 4 scoring system. M&T Bank currently has an "Outstanding" rating from the NYSDFS. Wilmington Trust, N.A. has been designated a special purpose trust company since March 3, 2016, and is therefore exempt from the requirements of the CRA. In April 2018, the U.S. Department of Treasury issued a memorandum to the Federal banking regulators with recommended changes to the CRA's implementing regulations to reduce their complexity and associated burden on banks, and in August 2018, the OCC published an advance notice of proposed rulemaking soliciting "ideas for building a new framework to transform or modernize the regulations that implement the CRA," without proposing any specific revisions to present CRA requirements. The Company will continue to evaluate the impact of any changes to the regulations implementing the CRA.

Bank Secrecy and Anti-Money Laundering

Federal laws and regulations impose obligations on U.S. financial institutions, including banks and broker/dealer subsidiaries, to implement and maintain appropriate policies, procedures and controls which are reasonably designed to prevent, detect and report instances of money laundering and the financing of terrorism and to verify the identity of their customers. In addition, these provisions require the federal financial institution regulatory agencies to consider the effectiveness of a financial institution's anti-money laundering activities when reviewing bank mergers and BHC acquisitions. Failure of a financial institution to maintain and implement adequate programs to combat money laundering and terrorist financing could have serious legal and reputational consequences for the institution.

In May 2016, Financial Crimes Enforcement Network, which drafts regulations implementing the USA PATRIOT Act and other anti-money laundering and bank secrecy act legislation, issued final rules that require financial institutions to obtain beneficial ownership information with respect to legal entities with which such institutions conduct business, subject to certain exclusions and exemptions, and financial institutions that are subject to these final rules, including M&T, were required to comply by May 2018. Bank regulators are focusing their examinations on anti-money laundering compliance, and M&T continues to monitor and augment, where necessary, its anti-money laundering compliance programs.

Office of Foreign Assets Control Regulation

The United States has imposed economic sanctions that affect transactions with designated foreign countries, nationals and others. These are typically known as the “OFAC” rules based on their administration by the U.S. Treasury Department Office of Foreign Assets Control (“OFAC”). The OFAC-administered sanctions targeting countries take many different forms. Generally, however, they contain one or more of the following elements: (i) restrictions on trade with or investment in a sanctioned country, including prohibitions against direct or indirect imports from and exports to a sanctioned country and prohibitions on “U.S. persons” engaging in financial transactions relating to making investments in, or providing investment-related advice or assistance to, a sanctioned country; and (ii) a blocking of assets in which the government or specially designated nationals of the sanctioned country have an interest, by prohibiting transfers of property subject to U.S. jurisdiction (including property in the possession or control of U.S. persons). Blocked assets (e.g. property and bank deposits) cannot be paid out, withdrawn, set off or transferred in any manner without a license from OFAC. Failure to comply with these sanctions could have serious legal and reputational consequences.

Federal Reserve Policies

The earnings of the Company are significantly affected by the monetary and fiscal policies of governmental authorities, including the Federal Reserve. Among the instruments of monetary policy used by the Federal Reserve are open-market operations in U.S. Government securities and federal funds, changes in the discount rate on member bank borrowings and changes in reserve requirements against member bank deposits. These instruments of monetary policy are used in varying combinations to influence the overall level of bank loans, investments and deposits, and the interest rates charged on loans and paid for deposits. The Federal Reserve frequently uses these instruments of monetary policy, especially its open-market operations and the discount rate, to influence the level of interest rates and to affect the strength of the economy, the level of inflation or the price of the dollar in foreign exchange markets. The monetary policies of the Federal Reserve have had a significant effect on the operating results of banking institutions in the past and are expected to continue to do so in the future. It is not possible to predict the nature of future changes in monetary and fiscal policies or the effect which they may have on the Company’s business and earnings.

Corporate Governance

M&T’s Corporate Governance Standards and the following corporate governance documents are also available on M&T’s website at the Investor Relations link: Disclosure and Regulation FD Policy; Executive Committee Charter; Nomination, Compensation and Governance Committee Charter; Audit Committee Charter; Risk Committee Charter; Financial Reporting and Disclosure Controls and Procedures Policy; Code of Ethics for CEO and Senior Financial Officers; Code of Business Conduct and Ethics; Employee Complaint Procedures for Accounting and Auditing Matters; and Excessive or Luxury Expenditures Policy. Copies of such governance documents are also available, free of charge, to any person who requests them. Such requests may be directed to M&T Bank Corporation, Shareholder Relations Department, One M&T Plaza, 8th Floor, Buffalo, NY 14203-2399 (Telephone: (716) 842-5138).

Competition

The Company competes in offering commercial and personal financial and wealth services with other banking institutions and thrifts and with firms in a number of other industries, such as credit unions, personal loan companies, sales finance companies, leasing companies, securities brokerage firms, mutual fund companies, hedge funds, wealth and investment advisory firms, insurance companies and other financial services-related entities. Furthermore, diversified financial services companies are able to offer a combination of these services to their customers on a nationwide basis. The Company's operations are significantly impacted by state and federal regulations applicable to the banking industry. Moreover, provisions of the Gramm-Leach-Bliley Act of 1999, the Interstate Banking Act and state banking laws have allowed for increased competition among diversified financial services providers and e-commerce and other Internet-based companies.

Other Information

Through a link on the Investor Relations section of M&T's website at www.mtb.com, copies of M&T's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, are made available, free of charge, as soon as reasonably practicable after electronically filing such material with, or furnishing it to, the SEC. Copies of such reports and other information are also available at no charge to any person who requests them or at www.sec.gov. Such requests may be directed to M&T Bank Corporation, Shareholder Relations Department, One M&T Plaza, 8th Floor, Buffalo, NY 14203-2399 (Telephone: (716) 842-5138).

Statistical Disclosure Pursuant to Guide 3

See cross-reference sheet for disclosures incorporated elsewhere in this Annual Report on Form 10-K. Additional information is included in the following tables.

Table 1

SELECTED CONSOLIDATED YEAR-END BALANCES

	2018 (In thousands)	2017	2016	2015	2014
Interest-bearing deposits at banks	$8,105,197	$5,078,903	$5,000,638	$7,594,350	$6,470,867
Federal funds sold	—	—	—	—	83,392
Trading account	185,584	132,909	323,867	273,783	308,175
Investment securities					
U.S. Treasury and federal agencies	11,746,240	13,851,832	15,090,578	14,540,237	12,042,390
Obligations of states and political subdivisions	9,153	27,151	64,499	124,459	157,159
Other	937,420	785,542	1,095,391	991,743	793,993
Total investment securities	12,692,813	14,664,525	16,250,468	15,656,439	12,993,542
Loans and leases					
Commercial, financial, leasing, etc.	23,136,913	21,900,258	22,770,629	20,576,737	19,617,253
Real estate — construction	8,823,635	8,125,925	8,066,756	5,716,994	5,061,269
Real estate — mortgage	42,816,858	44,965,038	48,134,198	49,841,156	31,250,968
Consumer	13,956,086	13,251,665	12,130,094	11,584,347	10,969,879
Total loans and leases	88,733,492	88,242,886	91,101,677	87,719,234	66,899,369
Unearned discount	(267,015)	(253,903)	(248,261)	(229,735)	(230,413)
Loans and leases, net of unearned discount	88,466,477	87,988,983	90,853,416	87,489,499	66,668,956
Allowance for credit losses	(1,019,444)	(1,017,198)	(988,997)	(955,992)	(919,562)
Loans and leases, net	87,447,033	86,971,785	89,864,419	86,533,507	65,749,394
Goodwill	4,593,112	4,593,112	4,593,112	4,593,112	3,524,625
Core deposit and other intangible assets	47,067	71,589	97,655	140,268	35,027
Real estate and other assets owned	78,375	111,910	139,206	195,085	63,635
Total assets	120,097,403	118,593,487	123,449,206	122,787,884	96,685,535
Noninterest-bearing deposits	32,256,668	33,975,180	32,813,896	29,110,635	26,947,880
Savings and interest-checking deposits	50,963,744	51,698,008	52,346,207	49,566,644	43,393,618
Time deposits	6,124,254	6,580,962	10,131,846	13,110,392	3,063,973
Deposits at Cayman Islands office	811,906	177,996	201,927	170,170	176,582
Total deposits	90,156,572	92,432,146	95,493,876	91,957,841	73,582,053
Short-term borrowings	4,398,378	175,099	163,442	2,132,182	192,676
Long-term borrowings	8,444,914	8,141,430	9,493,835	10,653,858	9,006,959
Total liabilities	104,637,212	102,342,668	106,962,584	106,614,595	84,349,639
Shareholders' equity	15,460,191	16,250,819	16,486,622	16,173,289	12,335,896

Table 2

SHAREHOLDERS, EMPLOYEES AND OFFICES

Number at Year-End	2018	2017	2016	2015	2014
Shareholders	18,099	18,864	19,802	20,693	14,551
Employees	17,267	16,794	16,973	17,476	15,782
Offices	794	833	855	863	766

Table 3

CONSOLIDATED EARNINGS

	2018	2017	2016	2015	2014
	(In thousands)				
Interest income					
Loans and leases, including fees	$4,164,561	$3,742,867	$3,485,050	$2,778,151	$2,596,586
Investment securities					
Fully taxable	323,912	361,157	361,494	372,162	340,391
Exempt from federal taxes	665	1,431	2,606	4,263	5,356
Deposits at banks	108,182	61,326	45,516	15,252	13,361
Other	1,391	1,014	1,205	1,016	1,183
Total interest income	4,598,711	4,167,795	3,895,871	3,170,844	2,956,877
Interest expense					
Savings and interest-checking deposits	215,411	133,177	87,704	46,140	46,869
Time deposits	51,423	61,505	102,841	27,059	15,515
Deposits at Cayman Islands office	5,633	1,186	797	615	699
Short-term borrowings	5,386	1,511	3,625	1,677	101
Long-term borrowings	248,556	189,372	231,017	252,766	217,247
Total interest expense	526,409	386,751	425,984	328,257	280,431
Net interest income	4,072,302	3,781,044	3,469,887	2,842,587	2,676,446
Provision for credit losses	132,000	168,000	190,000	170,000	124,000
Net interest income after provision for credit losses	3,940,302	3,613,044	3,279,887	2,672,587	2,552,446
Other income					
Mortgage banking revenues	360,442	363,827	373,697	375,738	362,912
Service charges on deposit accounts	429,337	427,372	419,102	420,608	427,956
Trust income	537,585	501,381	472,184	470,640	508,258
Brokerage services income	51,069	61,445	63,423	64,770	67,212
Trading account and foreign exchange gains	32,547	35,301	41,126	30,577	29,874
Gain (loss) on bank investment securities	(6,301)	21,279	30,314	(130)	—
Other revenues from operations	451,321	440,538	426,150	462,834	383,061
Total other income	1,856,000	1,851,143	1,825,996	1,825,037	1,779,273
Other expense					
Salaries and employee benefits	1,752,264	1,648,794	1,618,074	1,532,392	1,417,995
Equipment and net occupancy	298,828	295,084	295,141	272,539	269,299
Outside data processing and software	199,025	184,670	172,389	164,133	151,568
FDIC assessments	68,526	101,871	105,045	52,113	55,531
Advertising and marketing	85,710	69,203	87,137	59,227	47,111
Printing, postage and supplies	35,658	35,960	39,546	38,491	38,201
Amortization of core deposit and other intangible assets	24,522	31,366	42,613	26,424	33,824
Other costs of operations	823,529	773,377	687,540	677,613	675,945
Total other expense	3,288,062	3,140,325	3,047,485	2,822,932	2,689,474
Income before income taxes	2,508,240	2,323,862	2,058,398	1,674,692	1,642,245
Income taxes	590,160	915,556	743,284	595,025	575,999
Net income	$1,918,080	$1,408,306	$1,315,114	$1,079,667	$1,066,246
Dividends declared					
Common	$510,458	$457,200	$441,765	$374,912	$371,137

Preferred	72,521	72,734	81,270	81,270	75,878

Table 4

COMMON SHAREHOLDER DATA

	2018	2017	2016	2015	2014
Per share					
Net income					
Basic	$12.75	$8.72	$7.80	$7.22	$7.47
Diluted	12.74	8.70	7.78	7.18	7.42
Cash dividends declared	3.55	3.00	2.80	2.80	2.80
Common shareholders' equity at year-end	102.69	100.03	97.64	93.60	83.88
Tangible common shareholders' equity at year-end	69.28	69.08	67.85	64.28	57.06
Dividend payout ratio	27.66 %	34.24 %	35.81 %	37.56 %	37.49 %

Table 5

CHANGES IN INTEREST INCOME AND EXPENSE(a)

	2018 Compared with 2017			2017 Compared with 2016		
		Resulting from Changes in:			Resulting from Changes in:	
	Total Change	Volume	Rate	Total Change	Volume	Rate
	(Increase (decrease) in thousands)					
Interest income						
Loans and leases, including fees	$410,537	(61,159)	471,696	$265,542	7,912	257,630
Deposits at banks	46,856	398	46,458	15,810	(21,398)	37,208
Federal funds sold and agreements to resell securities	17	16	1	3	—	3
Trading account	277	(246)	523	(240)	(232)	(8)
Investment securities						
U.S. Treasury and federal agencies	(36,903)	(41,271)	4,368	3,520	15,273	(11,753)
Obligations of states and political subdivisions	(1,204)	(1,187)	(17)	(1,888)	(2,061)	173
Other	(1,337)	(1,021)	(316)	(3,215)	(3,302)	87
Total interest income	$418,243			$279,532		
Interest expense						
Interest-bearing deposits						
Savings and interest-checking deposits	$82,234	(3,240)	85,474	$45,473	2,132	43,341
Time deposits	(10,082)	(17,490)	7,408	(41,336)	(31,283)	(10,053)

Deposits at Cayman Islands office	4,447	2,133	2,314	389	(61)	450
Short-term borrowings	3,875	1,314	2,561	(2,114)	(3,923)	1,809
Long-term borrowings	59,184	12,996	46,188	(41,645)	(44,662)	3,017
Total interest expense	$139,658			$(39,233)		

(a) Interest income data are on a taxable-equivalent basis. The apportionment of changes resulting from the combined effect of both volume and rate was based on the separately determined volume and rate changes.

Item 1A. Risk Factors.

M&T and its subsidiaries could be adversely impacted by a number of risks and uncertainties that are difficult to predict. As a financial institution certain risk elements are inherent in the ordinary course of the Company's business activities and adverse experience with those risks could have a material impact on the Company's business, financial condition and results of operations, as well as on the values of the Company's financial instruments and M&T's common stock. The Company has developed a risk management process to identify, understand, mitigate and balance its exposure to significant risks. The following risk factors set forth some of the risks that could materially and adversely impact the Company, although there may be additional risks that are not presently material or known that may adversely affect the Company.

Market Risk

Weakness in the economy has adversely affected the Company in the past and may adversely affect the Company in the future.

Poor business and economic conditions in general or specifically in markets served by the Company could have adverse effects on the Company's business including:

- A decrease in the demand for loans and other products and services offered by the Company.
- A decrease in net interest income derived from the Company's lending and deposit gathering activities.
- A decrease in the value of the Company's investment securities, loans held for sale or other assets secured by residential or commercial real estate.
- Other-than-temporary impairment of investment securities in the Company's investment securities portfolio or other investments.
- A decrease in fees from the Company's brokerage and trust businesses associated with declines or lack of growth in stock market prices.
- Potential higher FDIC assessments due to the DIF falling below minimum required levels.
- An impairment of certain intangible assets, such as goodwill.
- An increase in the number of customers and counterparties who become delinquent, file for protection under bankruptcy laws or default on their loans or other obligations to the Company. An increase in the number of delinquencies, bankruptcies or defaults could result in higher levels of nonperforming assets, net charge-offs, provision for credit losses and valuation adjustments on loans held for sale.

The Company's business and financial performance is impacted significantly by market interest rates and movements in those rates. The monetary, tax and other policies of governmental agencies, including the Federal Reserve, have a significant impact on interest rates and overall financial market performance over which the Company has no control and which the Company may not be able to anticipate adequately.

As a result of the high percentage of the Company's assets and liabilities that are in the form of interest-bearing or interest-related instruments, changes in interest rates, in the shape of the yield curve or in spreads between different market interest rates, can have a material effect on the Company's business and profitability and the value of the Company's assets and liabilities. For example, changes in interest rates or interest rate spreads may:

- Affect the difference between the interest that the Company earns on assets and the interest that the Company pays on liabilities, which impacts the Company's overall net interest income and profitability.

- Adversely affect the ability of borrowers to meet obligations under variable or adjustable rate loans and other debt instruments, which, in turn, affects the Company's loss rates on those assets.
- Decrease the demand for interest rate based products and services, including loans and deposits.
- Affect the Company's ability to hedge various forms of market and interest rate risk and may decrease the profitability or protection or increase the risk or cost associated with such hedges.
- Affect mortgage prepayment speeds and could result in the impairment of capitalized mortgage servicing assets, reduce the value of loans held for sale and increase the volatility of mortgage banking revenues, potentially adversely affecting the Company's results of operations.

The monetary, tax and other policies of the government and its agencies, including the Federal Reserve, have a significant impact on interest rates and overall financial market performance. These governmental policies can thus affect the activities and results of operations of banking organizations such as the Company. An important function of the Federal Reserve is to regulate the national supply of bank credit and certain interest rates. The actions of the Federal Reserve influence the rates of interest that the Company charges on loans and that the Company pays on borrowings and interest-bearing deposits and can also affect the value of the Company's on-balance sheet and off-balance sheet financial instruments. Also, due to the impact on rates for short-term funding, the Federal Reserve's policies influence, to a significant extent, the Company's cost of such funding.

In addition, the Company is routinely subject to examinations from various governmental taxing authorities. Such examinations may result in challenges to the tax return treatment applied by the Company to specific transactions. Management believes that the assumptions and judgment used to record tax-related assets or liabilities have been appropriate. Should tax laws change or the tax authorities determine that management's assumptions were inappropriate, the result and adjustments required could have a material effect on the Company's results of operations. M&T cannot predict the nature or timing of future changes in monetary, tax and other policies or the effect that they may have on the Company's business activities, financial condition and results of operations.

Changes in the method pursuant to which LIBOR and other benchmark rates are determined could adversely impact our business and results of operations.

Our floating-rate funding, certain hedging transactions and certain of the products that we offer, such as floating-rate loans and mortgages, determine the applicable interest rate or payment amount by reference to a benchmark rate, such as the London Interbank Offered Rate ("LIBOR"), or to an index, currency, basket or other financial metric. LIBOR and certain other benchmark rates are the subject of recent national, international, and other regulatory guidance and proposals for reform. In July 2017, the Chief Executive of the Financial Conduct Authority ("FCA") announced that the FCA intends to stop persuading or compelling banks to submit rates for the calculation of LIBOR after 2021. This announcement indicates that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. Consequently, at this time, it is not possible to predict whether and to what extent banks will continue to provide submissions for the calculation of LIBOR. Similarly, it is not possible to predict whether LIBOR will continue to be viewed as an acceptable market benchmark, what rate or rates may become accepted alternatives to LIBOR, or what the effect of any such changes in views or alternatives may be on the markets for LIBOR-linked financial instruments.

The discontinuation of LIBOR, changes in LIBOR or changes in market perceptions of the acceptability of LIBOR as a benchmark could result in changes to the Company's risk exposures (for example, if the anticipated discontinuation of LIBOR adversely affects the availability or cost of floating-rate funding and, therefore, the Company's exposure to fluctuations in interest rates) or otherwise result in losses on a product or having to pay more or receive less on securities that the Company owns or has issued. A substantial portion of the Company's on- and off-balance sheet financial instruments (many of which have terms that extend beyond 2021) are indexed to LIBOR, including interest rate swap agreements and other contracts used for hedging and trading account purposes, loans to commercial customers and consumers (including mortgage loans and other loans), and long-term borrowings. In addition, such uncertainty could result in pricing volatility and increased capital requirements, loss of market share in certain products, adverse tax or accounting impacts, and compliance, legal and operational costs and risks.

The Company's business and performance is vulnerable to the impact of volatility in debt and equity markets.

As most of the Company's assets and liabilities are financial in nature, the Company's performance is sensitive to the performance of the financial markets. Turmoil and volatility in U.S. and global financial markets can be a major contributory factor to overall weak economic conditions, leading to some of the risks discussed herein, including the impaired ability of borrowers and other counterparties to meet obligations to the Company. Financial market volatility may:

- Affect the value or liquidity of the Company's on-balance sheet and off-balance sheet financial instruments.
- Affect the value of capitalized servicing assets.
- Affect M&T's ability to access capital markets to raise funds. Inability to access capital markets if needed, at cost effective rates, could adversely affect the Company's liquidity and results of operations.
- Affect the value of the assets that the Company manages or otherwise administers or services for others. Although the Company is not directly impacted by changes in the value of such assets, decreases in the value of those assets would affect related fee income and could result in decreased demand for the Company's services.
- Impact the nature, profitability or risk profile of the financial transactions in which the Company engages.

Volatility in the markets for real estate and other assets commonly securing financial products has been and may continue to be a significant contributor to overall volatility in financial markets. In addition, unfavorable or uncertain economic and market conditions can be caused by the imposition of tariffs or other limitations on international trade and travel, which can result in market volatility, negatively impact client activity, and adversely affect the Company's financial condition and results of operations.

The Company's regional concentrations expose it to adverse economic conditions in its primary retail banking office footprint.

The Company's core banking business is largely concentrated within the Company's retail banking office network footprint, located principally in New York, Maryland, New Jersey, Pennsylvania, Delaware, Connecticut, Virginia, West Virginia and the District of Columbia. Therefore, the Company is, or in the future may be, particularly vulnerable to adverse changes in economic conditions in the Northeast and Mid-Atlantic regions.

Risks Relating to Compliance and the Regulatory Environment

The Company is subject to extensive government regulation and supervision and this regulatory environment can be and has been significantly impacted by financial regulatory reform initiatives.

The Company is subject to extensive federal and state regulation and supervision. Banking regulations are primarily intended to protect depositors' funds, federal deposit insurance funds and the financial system as a whole, not stockholders. These regulations and supervisory guidance affect the Company's lending practices, capital structure, amounts of capital, investment practices, dividend policy, growth and expansionary activity, among other things. Failure to comply with laws, regulations, policies or supervisory guidance could result in civil or criminal penalties, including monetary penalties, the loss of FDIC insurance, the revocation of a banking charter, other sanctions by regulatory agencies, and/or reputation damage, which could have a material adverse effect on the Company's business, financial condition and results of operations. In this regard, government authorities, including the bank regulatory agencies, can pursue aggressive enforcement actions with respect to compliance and other legal matters involving financial activities, which heightens the risks associated with actual and perceived compliance failures and may also adversely affect the Company's ability to enter into certain transactions or engage in certain activities, or obtain necessary regulatory approvals in connection therewith. In general, the amounts paid by financial institutions in settlement of proceedings or investigations have increased substantially and are likely to remain elevated. In some cases, governmental authorities have required criminal pleas or other extraordinary terms as part of such settlements, which could have significant collateral consequences for a financial institution, including loss of customers, restrictions on the ability to access the capital markets, and the inability to operate certain businesses or offer certain products for a period of time. In addition, enforcement matters could impact the Company's supervisory and CRA ratings, which may in turn restrict or limit the Company's activities.

Any new regulatory requirements or changes to existing requirements could require changes to the Company's businesses, result in increased compliance costs and affect the profitability of such businesses. Additionally, such activity could affect the behaviors of third parties with which the Company deals in the ordinary course of business, such as rating agencies, insurance companies and investors. Heightened regulatory practices, requirements or expectations could affect the Company in substantial and unpredictable ways, and, in turn, could have a material adverse effect on the Company's business, financial condition and results of operations.

There have been significant revisions to the laws and regulations applicable to the Company that have been enacted or proposed in recent months. These and other rules to implement the changes have yet to be finalized, and the final timing, scope and impact of these changes to the regulatory framework applicable to financial institutions remain uncertain. For more information on the regulations to which we are subject and recent initiatives to reform financial institution regulation, see Part I, Item 1 — Business in this report.

Capital and liquidity standards adopted by the U.S. banking regulators have resulted in banks and bank holding companies needing to maintain more and higher quality capital and greater liquidity than has historically been the case.

Capital standards imposed as a result of the Dodd-Frank Act (as amended by EGRRCPA) and the U.S. Basel III-based capital rules have had a significant effect on banks and bank holding companies, including M&T. The U.S. capital rules require bank holding companies and their bank subsidiaries to maintain substantially more capital, with a greater emphasis on common equity. For additional information, see "Capital Requirements" under Part I, Item 1 "Business."

The requirement to maintain more and higher quality capital, as well as greater liquidity than historically has been required, and generally increased regulatory scrutiny with respect to capital and liquidity levels, could limit the Company's business activities, including lending, and its ability to expand, either organically or through acquisitions. It could also result in M&T being required to take steps to increase its regulatory capital that may be dilutive to shareholders or limit its ability to pay dividends or otherwise return capital to shareholders, or sell or refrain from acquiring assets, the capital requirements for which are not justified by the assets' underlying risks.

In addition, the U.S. Basel III-based liquidity coverage ratio requirement and the liquidity-related provisions of the Federal Reserve's liquidity-related enhanced prudential supervision requirements require the Company to hold increased levels of unencumbered highly liquid investments, thereby reducing the Company's ability to invest in other longer-term assets even if deemed more desirable from a balance sheet management perspective. Moreover, U.S. federal banking agencies have been taking into account expectations regarding the ability of banks to meet these requirements, including under stressed conditions, in approving actions that represent uses of capital, such as dividend increases, common stock share repurchases and acquisitions.

Certain elements of these capital and liquidity standards may be eased in the future consistent with recently issued and anticipated proposals by the Federal banking agencies following the enactment of EGRRCPA. However, the ultimate timing and implementation of such relief is unclear and therefore the Company expects to remain subject to these standards in the near term.

M&T's ability to return capital to shareholders and to pay dividends on common stock may be adversely affected by market and other factors outside of its control and will depend, in part, on a review of its capital plan by the Federal Reserve.

Any decision by M&T to return capital to shareholders, whether through a common stock dividend or through a common stock share repurchase program, requires the approval of M&T's Board of Directors and depends in large part on receiving regulatory approval, including through the Federal Reserve's CCAR process and the supervisory stress tests required under the Dodd-Frank Act whereby M&T's financial position is tested under assumed severely adverse economic conditions. Prior to the public disclosure of a BHC's CCAR results, the Federal Reserve will provide the BHC with the results of its supervisory stress test and will offer a one-time opportunity for the BHC to reduce planned capital distributions through the submission of a revised capital plan. The Federal Reserve may object to any capital plan in which a BHC's regulatory capital ratios inclusive of adjustments to planned capital distributions, if any, would not meet the minimum requirements throughout a nine-quarter period under severely adverse stress conditions. In January 2017, the Federal Reserve finalized a rule modifying the capital plan and stress testing rules for the 2017 cycle. The rule eliminated the qualitative component of CCAR for bank holding companies with total consolidated assets between $50 billion and $250 billion, such as M&T. The qualitative assessment considered factors including the comprehensiveness of a BHC's capital plan, the assumptions and analysis underlying the plan, and the extent to which the BHC had satisfied certain supervisory matters related to its processes, analyses, controls and governance. The Federal Reserve will continue to evaluate these factors through the regular supervisory process and targeted horizontal reviews of particular aspects of capital planning. If the Federal Reserve objects to M&T's capital plan, it could impose restrictions on M&T's ability to return capital to shareholders, including through paying dividends, entering into acquisitions or repurchasing its common stock, which in turn could negatively impact market and investor perceptions of M&T. In June 2018, the Federal Reserve announced that it did not object to M&T's revised capital plan; however, M&T cannot be certain that the Federal Reserve will not object to future capital plans.

In addition, Federal Reserve capital planning and stress testing rules generally limit a BHC’s ability to make quarterly capital distributions – dividends and common stock share repurchases – if the amount of actual cumulative quarterly capital issuances of instruments that qualify as regulatory capital are less than the BHC had indicated in its submitted capital plan as to which it received a non-objection from the Federal Reserve. As such, M&T’s ability to declare and pay dividends on its common stock, as well as the amount of such dividends, will depend, in part, on its ability to issue stock in accordance with its capital plan or to otherwise remain in compliance with its capital plan, which may be adversely affected by market and other factors outside of M&T’s control.

Certain elements of these stress testing and capital planning requirements may be eased in the future consistent with recently issued and anticipated proposals by the Federal banking agencies following the enactment of EGRRCPA. However, the ultimate timing and implementation of such relief is unclear and therefore the Company expects to remain subject to these standards in the near term.

The effect of resolution plan requirements may have a material adverse impact on M&T.

Bank holding companies with consolidated assets of $100 billion or more, such as M&T, are currently required to submit periodically to regulators a resolution plan for their rapid and orderly resolution in the event of material financial distress or failure. M&T’s resolution plan must, among other things, ensure that its depository institution subsidiaries are adequately protected from risks arising from its other subsidiaries. The regulation adopted by the Federal Reserve and FDIC prescribes specific standards for the resolution plans, including requiring a strategic analysis of the plan’s components, a description of the range of specific actions the Company proposes to take in resolution, and a description of the Company’s organizational structure, material entities, core business lines, interconnections and interdependencies, and management information systems, among other elements. The most recent resolution plan for M&T was filed in December 2017. In addition, insured depository institutions with $50 billion or more in total assets, such as M&T Bank, are required to submit to the FDIC periodic plans for resolution in the event of the institution’s failure. M&T Bank submitted its most recent resolution plan in June 2018.

If the Federal Reserve and the FDIC jointly determine that the resolution plan of a BHC is not credible, and the company fails to cure the deficiencies in a timely manner, then the Federal Reserve and the FDIC may jointly impose on the company, or on any of its subsidiaries, more stringent capital, leverage or liquidity requirements or restrictions on growth, activities or operations, or require the divestment of certain assets or operations. If the Federal Reserve and the FDIC jointly determine that M&T’s resolution plan is not credible or would not facilitate its orderly resolution under the U.S. Bankruptcy Code, the Company could become subject to more stringent regulatory requirements or business restrictions, or have to divest certain of its assets or businesses. Any such measures could have a material adverse effect on the Company’s business, financial condition or results of operations.

If an orderly liquidation of a systemically important BHC or non-bank financial company were triggered, M&T could face assessments for the Orderly Liquidation Fund (“OLF”).

The Dodd-Frank Act creates a mechanism, the OLF, for liquidation of systemically important bank holding companies and non-bank financial companies. The OLF is administered by the FDIC and is based on the FDIC’s bank resolution model. The Secretary of the U.S. Treasury may trigger a liquidation under this authority after consultation with the President of the U.S. and after receiving a recommendation from the boards of the FDIC and the Federal Reserve upon a two-thirds vote. Liquidation proceedings will be funded by the OLF, which will borrow from the U.S. Treasury and impose risk-based assessments on covered financial companies. Risk-based assessments would be first made on entities that received more in the resolution than they would have received in the liquidation to the extent of such excess, and second, if necessary, on, among others, bank holding companies with total consolidated assets of $50 billion or more, such as M&T. Any such assessments may adversely affect the Company’s business, financial condition or results of operations.

Credit Risk

Deteriorating credit quality could adversely impact the Company.

As a lender, the Company is exposed to the risk that customers will be unable to repay their loans in accordance with the terms of the agreements, and that any collateral securing the loans may be insufficient to assure full repayment. Credit losses are inherent in the business of making loans.

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. Factors that can influence the Company’s credit loss experience include: (i) the impact of residential real estate values on loans to residential real estate builders and developers and other loans secured by 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 area and in central Pennsylvania that have historically experienced less economic growth and vitality than many other regions of the country; (iv) the repayment performance associated with 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 loans to other types of borrowers.

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, governmental policy regarding housing and housing finance, and general economic conditions affecting consumers.

The Company maintains an allowance for credit losses which represents, in management’s judgment, the amount of losses inherent in the loan and lease portfolio. The allowance is determined by management’s evaluation of the loan and lease portfolio based on such factors as the differing economic risks associated with each loan category, the current 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. The effects of probable decreases in expected principal cash flows on loans acquired at a discount are also considered in the establishment of the allowance for credit losses.

Management believes that the allowance for credit losses appropriately reflects credit losses inherent in the loan and lease portfolio. However, there is no assurance that the allowance will be sufficient to cover such credit losses, particularly if housing and employment conditions worsen or the economy experiences a downturn. In those cases, the Company may be required to increase the allowance through an increase in the provision for credit losses, which would reduce net income.

The Company may be adversely affected by the soundness of other financial institutions.

Financial services institutions are interrelated as a result of trading, clearing, counterparty, or other relationships. The Company has exposure to many different industries and counterparties, and routinely executes transactions with counterparties in the financial services industry, including commercial banks, brokers and dealers, investment banks, and other institutional clients. Many of these transactions expose the Company to credit risk in the event of a default by a counterparty or client. In addition, the Company's credit risk may be exacerbated when the collateral held by the Company cannot be realized or is liquidated at prices not sufficient to recover the full amount of the credit or derivative exposure due to the Company. Any resulting losses could have a material adverse effect on the Company's financial condition and results of operations.

Liquidity Risk

The Company must maintain adequate sources of funding and liquidity.

The Company must maintain adequate funding sources in the normal course of business to support its operations and fund outstanding liabilities, as well as meet regulatory expectations. The Company primarily relies on deposits to be a low cost and stable source of funding for the loans it makes and the operations of its business. Core customer deposits, which include noninterest-bearing deposits, interest-bearing transaction accounts, savings deposits and time deposits of $250,000 or less, have historically provided the Company with a sizeable source of relatively stable and low-cost funds. In addition to customer deposits, sources of liquidity include borrowings from third party banks, securities dealers, various Federal Home Loan Banks and the Federal Reserve Bank of New York.

The Company's liquidity and ability to fund and operate the business could be materially adversely affected by a variety of conditions and factors, including financial and credit market disruptions and volatility or a lack of market or customer confidence in financial markets in general, which may result in a loss of customer deposits or outflows of cash or collateral and/or ability to access capital markets on favorable terms. Negative news about the Company or the financial services industry generally may reduce market or customer confidence in the Company, which could in turn materially adversely affect the Company's liquidity and funding. Such reputational damage may result in the loss of customer deposits, the inability to sell or securitize loans or other assets, and downgrades in one or more of the Company's credit ratings, and may also negatively affect the Company' ability to access the capital markets. A downgrade in the Company's credit ratings, which could result from general industry-wide or regulatory factors not solely related to the Company, could adversely affect the Company's ability to borrow funds, including by raising the cost of borrowings substantially, and could cause creditors and business counterparties to raise collateral requirements or take other actions that could adversely affect M&T's ability to raise capital. Many of the above conditions and factors may be caused by events over which M&T has little or no control. There can be no assurance that significant disruption and volatility in the financial markets will not occur in the future.

Recent regulatory changes relating to liquidity and risk management have also impacted the Company's results of operations and competitive position. These regulations address, among other matters, liquidity stress testing, minimum liquidity requirements and restrictions on short-term debt issued by top-tier holding companies.

If the Company is unable to continue to fund assets through customer bank deposits or access funding sources on favorable terms or if the Company suffers an increase in borrowing costs or otherwise fails to manage liquidity effectively, the Company's liquidity, operating margins, financial condition and results of operations may be materially adversely affected.

M&T relies on dividends from its subsidiaries for its liquidity.

M&T is a separate and distinct legal entity from its subsidiaries. M&T typically receives substantially all of its revenue from subsidiary dividends. These dividends are M&T's principal source of funds to pay dividends on common and preferred stock, pay interest and principal on its debt, and fund purchases of its common stock. Various federal and/or state laws and regulations, as well as regulatory expectations, limit the amount of dividends that M&T's banking subsidiaries and certain non-bank subsidiaries may pay. Regulatory scrutiny of capital levels at bank holding companies and insured depository institution subsidiaries has increased in recent years and has resulted in increased regulatory focus on all aspects of capital planning, including dividends and other distributions to shareholders of banks, such as parent bank holding companies. See "Item 1. Business — Distributions" for a discussion of regulatory and other restrictions on dividend declarations. Also, M&T's right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to the prior claims of that subsidiary's creditors. Limitations on M&T's ability to receive dividends from its subsidiaries could have a material adverse effect on its liquidity and ability to pay dividends on its stock or interest and principal on its debt, and ability to fund purchases of its common stock.

Strategic Risk

The financial services industry is highly competitive and creates competitive pressures that could adversely affect the Company's revenue and profitability.

The financial services industry in which the Company operates is highly competitive. The Company competes not only with commercial and other banks and thrifts, but also with insurance companies, mutual funds, hedge funds, securities brokerage firms and other companies offering financial services in the U.S., globally and over the Internet. Some of the Company's non-bank competitors are not subject to the same extensive regulations the Company is, and may have greater flexibility in competing for business. In particular, the activity and prominence of so-called marketplace lenders and other technological financial services companies has grown significantly in recent years and is expected to continue growing. The Company competes on the basis of several factors, including capital, access to capital, revenue generation, products, services, transaction execution, innovation, reputation and price. Over time, certain sectors of the financial services industry have become more concentrated, as institutions involved in a broad range of financial services have been acquired by or merged into other firms. These developments could result in the Company's competitors gaining greater capital and other resources, such as a broader range of products and services and geographic diversity. The Company may experience pricing pressures as a result of these factors and as some of its competitors seek to increase market share by reducing prices or paying higher rates of interest on deposits.

Finally, technological change is influencing how individuals and firms conduct their financial affairs and is changing the delivery channels for financial services. Financial technology providers, who invest substantial resources in developing and designing new technology (in particular digital and mobile technology), are beginning to offer more traditional banking products (either directly or through bank partnerships) and may in the future be able to provide additional services by obtaining a bank-like charter, such as the OCC's fintech charter. As a result, the Company may have to contend with a broader range of competitors including many that are not located within the geographic footprint of its banking office network. Further, along with other participants in the financial services industry, the Company frequently attempts to introduce new technology-driven products and services that are aimed at allowing the Company to better serve customers and to reduce costs. The Company may not be able to effectively implement new technology-driven products and services that allow it to remain competitive or be successful in marketing these products and services to its customers.

Difficulties in combining the operations of acquired entities with the Company's own operations may prevent M&T from achieving the expected benefits from its acquisitions.

M&T has expanded its business through past acquisitions and may do so in the future. Inherent uncertainties exist when integrating the operations of an acquired entity. M&T may not be able to fully achieve its strategic objectives and planned operating efficiencies in an acquisition. In addition, the markets and industries in which the Company and its actual or potential acquisition targets operate are highly competitive. The Company may lose customers or fail to retain the customers of acquired entities as a result of an acquisition. Acquisition and integration activities require M&T to devote substantial time and resources, and as a result M&T may not be able to pursue other business opportunities while integrating acquired entities with the Company.

After completing an acquisition, the Company may not realize the expected benefits of the acquisition due to lower financial results pertaining to the acquired entity. For example, the Company could experience higher credit losses, incur higher operating expenses or realize less revenue than originally anticipated related to an acquired entity.

Operational Risk

The Company is subject to operational risk which could adversely affect the Company's business and reputation and create material legal and financial exposure.

Like all businesses, the Company is subject to operational risk, which represents the risk of loss resulting from human error, inadequate or failed internal processes and systems, and external events. Operational risk also encompasses reputational risk and compliance and legal risk, which is the risk of loss from violations of, or noncompliance with, laws, rules, regulations, prescribed practices or ethical standards, as well as the risk of noncompliance with contractual and other obligations. The Company is also exposed to operational risk through outsourcing arrangements, and the effect that changes in circumstances or capabilities of its outsourcing vendors can have on the Company's ability to continue to perform operational functions necessary to its business. Although the Company seeks to mitigate operational risk through a system of internal controls that are reviewed and updated, no system of controls, however well designed and maintained, is infallible. Control weaknesses or failures or other operational risks could result in charges, increased operational costs, harm to the Company's reputation or foregone business opportunities.

M&T could suffer if it fails to attract and retain skilled personnel.

M&T's success depends, in large part, on its ability to attract and retain key individuals and to have a diverse workforce. Competition for qualified and diverse candidates in the activities in which the Company engages and markets that the Company serves is significant, and the Company may not be able to hire candidates and retain them. Growth in the Company's business, including through acquisitions, may increase its need for additional qualified personnel. The Company is increasingly competing for personnel with financial technology providers and other less regulated entities who may not have the same limitations on compensation as the Company does. If the Company is not able to hire or retain highly skilled and qualified individuals, it may be unable to execute its business strategies and may suffer adverse consequences to its business, financial condition and results of operations.

The Company’s compensation practices are subject to review and oversight by the Federal Reserve, the OCC, the FDIC and other regulators. The federal banking agencies have issued joint guidance on executive compensation designed to help ensure that a banking organization’s incentive compensation policies do not encourage imprudent risk taking and are consistent with the safety and soundness of the organization. In addition, the Dodd-Frank Act required those agencies, along with the SEC, to adopt rules to require reporting of incentive compensation and to prohibit certain compensation arrangements. If as a result of complying with such rules the Company is unable to attract and retain qualified employees, or do so at rates necessary to maintain its competitive position, or if the compensation costs required to attract and retain employees become more significant, the Company’s performance, including its competitive position, could be materially adversely affected.

The Company’s information systems may experience interruptions or breaches in security.

The Company relies heavily on communications and information systems, including those of third-party service providers, to conduct its business. Any failure, interruption or breach in security of these systems could result in disruptions to its accounting, deposit, loan and other systems, and adversely affect the Company’s customer relationships. While the Company has policies and procedures designed to prevent or limit the effect of these possible events, there can be no assurance that any such failure, interruption or security breach will not occur or, if any does occur, that it can be sufficiently or timely remediated.

Information security risks for large financial institutions such as M&T have increased significantly in recent years in part because of the proliferation of new technologies, such as Internet and mobile banking to conduct financial transactions, and the increased sophistication and activities of organized crime, hackers, terrorists, nation-states, activists and other external parties. There have been increasing efforts on the part of third parties, including through cyber attacks, to breach data security at financial institutions or with respect to financial transactions. There have been several instances involving financial services and consumer-based companies reporting unauthorized access to and disclosure of client or customer information or the destruction or theft of corporate data, including by executive impersonation and third party vendors. There have also been several highly publicized cases where hackers have requested “ransom” payments in exchange for not disclosing customer information.

As cyber threats continue to evolve, the Company may be required to expend significant additional resources to continue to modify or enhance its layers of defense or to investigate and remediate any information security vulnerabilities. The techniques used by cyber criminals change frequently, may not be recognized until launched and can be initiated by a variety of actors, including terrorist organizations and hostile foreign governments. These actors may attempt to fraudulently induce employees, customers or other users of the Company’s systems to disclose sensitive information in order to gain access to data or the Company’s systems. These risks may increase as the use of mobile payment and other Internet-based applications expands.

Further, third parties with which the Company does business, as well as vendors and other third parties with which the Company’s customers do business, can also be sources of information security risk to the Company, particularly where activities of customers are beyond the Company’s security and control systems, such as through the use of the Internet, personal computers, tablets, smart phones and other mobile services. Security breaches affecting the Company’s customers, or systems breakdowns or failures, security breaches or employee misconduct affecting such other third parties, may require the Company to take steps to protect the integrity of its own systems or to safeguard confidential information of the Company or its customers, thereby increasing the Company’s operational costs and adversely affecting its business.

The occurrence of any failure, interruption or security breach of the Company’s systems or those of third-party service providers (or, in turn, providers to such third-party providers), particularly if widespread or resulting in financial losses to customers, could damage the Company's reputation, result in a loss of customer business, subject the Company to additional regulatory scrutiny and potential sanctions, or expose it to civil litigation and financial liability.

The Company is also subject to laws and regulations relating to the privacy of the information of clients, employees or others, and any failure to comply with these laws and regulations could expose the Company to liability and/or reputational damage. As new privacy-related laws and regulations, such as the cybersecurity regulation of the NYSDFS, are implemented, the time and resources needed for the Company to comply with such laws and regulations, as well as its potential liability for non-compliance and reporting obligations in the case of data breaches, may significantly increase. In addition, the Company is increasingly subject to laws and regulations relating to privacy, surveillance, encryption and data use in the jurisdictions in which it operates. Compliance with these laws and regulations may require changes to policies, procedures and technology for information security and segregation of data, which could, among other things, make the Company more vulnerable to operational failures, and to monetary penalties for breach of such laws and regulations.

M&T relies on other companies to provide key components of the Company's business infrastructure.

Third parties provide key components of the Company's business infrastructure such as banking services, processing, and Internet connections and network access. Any disruption in such services provided by these third parties or any failure of these third parties to handle current or higher volumes of use could adversely affect the Company's ability to deliver products and services to clients and otherwise to conduct business. Technological or financial difficulties of a third party service provider could adversely affect the Company's business to the extent those difficulties result in the interruption or discontinuation of services provided by that party. The Company may not be insured against all types of losses as a result of third party failures and insurance coverage may be inadequate to cover all losses resulting from system failures or other disruptions. Failures in the Company's business infrastructure could interrupt the operations or increase the costs of doing business.

The Company is or may become involved from time to time in suits, legal proceedings, information-gathering requests, investigations and proceedings by governmental and self-regulatory agencies that may lead to adverse consequences.

Many aspects of the Company's business and operations involve substantial risk of legal liability. M&T and/or its subsidiaries have been named or threatened to be named as defendants in various lawsuits arising from its or its subsidiaries' business activities (and in some cases from the activities of companies M&T has acquired). In addition, from time to time, M&T is, or may become, the subject of governmental and self-regulatory agency information-gathering requests, reviews, investigations and proceedings and other forms of regulatory inquiry, including by bank and other regulatory agencies, the SEC and law enforcement authorities. The SEC has announced a policy of seeking admissions of liability in certain settled cases, which could adversely impact the defense of private litigation. M&T is also at risk when it has agreed to indemnify others for losses related to legal proceedings, including for litigation and governmental investigations and inquiries, such as in connection with the purchase or sale of a business or assets. The results of such proceedings could lead to significant civil or criminal penalties, including monetary penalties, damages, adverse judgments, settlements, fines, injunctions, restrictions on the way in which the Company conducts its business, or reputational harm.

Although the Company establishes accruals for legal proceedings when information related to the loss contingencies represented by those matters indicates both that a loss is probable and that the amount of loss can be reasonably estimated, the Company does not have accruals for all legal proceedings where it faces a risk of loss. In addition, due to the inherent subjectivity of the assessments and unpredictability of the outcome of legal proceedings, amounts accrued may not represent the ultimate loss to the Company from the legal proceedings in question. Thus, the Company's ultimate losses may be higher, and possibly significantly so, than the amounts accrued for legal loss contingencies, which could adversely affect the Company's financial condition and results of operations.

Business Risk

Changes in accounting standards could impact the Company's financial condition and results of operations.

The accounting standard setters, including the Financial Accounting Standards Board ("FASB"), the SEC and other regulatory bodies, periodically change the financial accounting and reporting standards that govern the preparation of the Company's consolidated financial statements. These changes can be difficult to predict and can materially impact how the Company records and reports its financial condition and results of operations. In some cases, the Company could be required to apply a new or revised standard retroactively, which would result in the restating of the Company's prior period financial statements. Information about recently adopted and not as yet adopted accounting standards is included in note 26 of Notes to Financial Statements included in Part II, Item 8 – Financial Statements and Supplemental Data of this Form 10-K.

The Company's reported financial condition and results of operations depend on management's selection of accounting methods and require management to make estimates about matters that are uncertain.

Accounting policies and processes are fundamental to the Company's reported financial condition and results of operations. Some of these policies require use of estimates and assumptions that may affect the reported amounts of assets or liabilities and financial results. Several of M&T's accounting policies are critical because they require management to make difficult, subjective and complex judgments about matters that are inherently uncertain and because it is likely that materially different amounts would be reported under different conditions or using different assumptions. Pursuant to generally accepted accounting principles, management is required to make certain assumptions and estimates in preparing the Company's financial statements. If assumptions or estimates underlying the Company's financial statements are incorrect, the Company may experience material losses.

Management has identified certain accounting policies as being critical because they require management's judgment to ascertain the valuations of assets, liabilities, commitments and contingencies. A variety of factors could affect the ultimate value that is obtained either when earning income, recognizing an expense, recovering an asset, valuing an asset or liability, or recognizing or reducing a liability. M&T has established detailed policies and control procedures that are intended to ensure these critical accounting estimates and judgments are well controlled and applied consistently. In addition, the policies and procedures are intended to ensure that the process for changing methodologies occurs in an appropriate manner. Because of the uncertainty surrounding judgments and the estimates pertaining to these matters, M&T could be required to adjust accounting policies or restate prior period financial statements if those judgments and estimates prove to be incorrect. For additional information, see Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, "Critical Accounting Estimates" and Note 1, "Significant Accounting Policies," of Notes to Financial Statements in Part II, Item 8.

The Company’s models used for business planning purposes could perform poorly or provide inadequate information.

The Company uses quantitative models to assist in measuring risks and estimating or predicting certain financial values. The models used may not accurately account for all variables and may fail to predict outcomes accurately and/or may overstate or understate certain effects. Poorly designed, implemented, or managed models present the risk that the Company’s business decisions that consider information based on such models will be adversely affected due to inadequate or inaccurate information. As a result, the Company may not adequately prepare for future events and may suffer losses due to these failures. Also, information the Company provides to the public or to its regulators based on poorly designed, implemented, or managed models could be inaccurate or misleading. Decisions that regulators make, including those related to capital distributions to stockholders, could be affected adversely due to the perception that the quality of the models used to generate the relevant information is insufficient.

The Company is exposed to reputational risk.

A negative public opinion of the Company and its business can result from any number of activities, including the Company’s lending practices, corporate governance and regulatory compliance, acquisitions and actions taken by regulators or by community organizations in response to these activities. Significant harm to the Company’s reputation could also arise as a result of regulatory or governmental actions, litigation, employee misconduct or the activities of customers, other participants in the financial services industry or the Company’s contractual counterparties, such as service providers and vendors. In particular, a cyber security event impacting the Company’s or its customers’ data could have a negative impact on the Company’s reputation and customer confidence in the Company and its cyber security. Damage to the Company’s reputation could also adversely affect its credit ratings and access to the capital markets.

Severe weather, natural disasters, acts of war or terrorism and other external events could significantly impact the Company’s business.

Severe weather, natural disasters, acts of war or terrorism and other adverse external events could have a significant impact on the Company’s ability to conduct business. Such events could affect the stability of the Company’s deposit base, impair the ability of borrowers to repay outstanding loans, impair the value of collateral securing loans, cause significant property damage, result in loss of revenue and/or cause the Company to incur additional expenses. Although the Company has established disaster recovery plans and procedures, and monitors for significant environmental effects on its properties or its investments, the occurrence of any such event could have a material adverse effect on the Company.

Discussions of the specific risks outlined above and other risks facing the Company are included within this Annual Report on Form 10-K in Part I, Item 1 “Business,” and Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Furthermore, in Part II, Item 7 under the heading “Forward-Looking Statements” is included a description of certain risks, uncertainties and assumptions identified by management that are difficult to predict and that could materially affect the Company’s financial condition and results of operations, as well as the value of the Company’s financial instruments in general, and M&T common stock, in particular.

In addition, the market price of M&T common stock may fluctuate significantly in response to a number of other factors, including changes in securities analysts' estimates of financial performance, volatility of stock market prices and volumes, rumors or erroneous information, changes in market valuations of similar companies and changes in accounting policies or procedures as may be required by the FASB or other regulatory agencies.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Both M&T and M&T Bank maintain their executive offices at One M&T Plaza in Buffalo, New York. This twenty-one story headquarters building, containing approximately 300,000 rentable square feet of space, is owned in fee by M&T Bank and was completed in 1967. M&T, M&T Bank and their subsidiaries occupy approximately 98% of the building and the remainder is leased to non-affiliated tenants. At December 31, 2018, the cost of this property (including improvements subsequent to the initial construction), net of accumulated depreciation, was $10.4 million.

M&T Bank owns and occupies an additional facility in Buffalo, New York (known as M&T Center) with approximately 395,000 rentable square feet of space. At December 31, 2018, the cost of this building (including improvements subsequent to acquisition), net of accumulated depreciation, was $12.4 million.

M&T Bank also owns and occupies three separate facilities in the Buffalo area which support certain back-office and operations functions of the Company. The total square footage of these facilities approximates 290,000 square feet and their combined cost (including improvements subsequent to acquisition), net of accumulated depreciation, was $28.9 million at December 31, 2018.

M&T Bank owns a facility in Syracuse, New York with approximately 160,000 rentable square feet of space. Approximately 46% of that facility is occupied by M&T Bank. At December 31, 2018, the cost of that building (including improvements subsequent to acquisition), net of accumulated depreciation, was less than $1 million.

M&T Bank owns facilities in Wilmington, Delaware, with approximately 340,000 (known as Wilmington Center) and 295,000 (known as Wilmington Plaza) rentable square feet of space, respectively. M&T Bank occupies approximately 97% of Wilmington Center. Wilmington Plaza is occupied by a tenant. At December 31, 2018, the cost of these buildings (including improvements subsequent to acquisition), net of accumulated depreciation, was $40.6 million and $12.2 million, respectively.

M&T Bank also owns facilities in Harrisburg, Pennsylvania and Millsboro, Delaware with approximately 220,000 and 325,000 rentable square feet of space, respectively. M&T Bank occupies approximately 30% and 89% of those facilities, respectively. At December 31, 2018, the cost of those buildings (including improvements subsequent to acquisition), net of accumulated depreciation, was $9.4 million and $9.0 million, respectively.

No other properties owned by M&T Bank have more than 100,000 square feet of space. The cost, net of accumulated depreciation and amortization, of the Company's premises and equipment is detailed in note 5 of Notes to Financial Statements filed herewith in Part II, Item 8, "Financial Statements and Supplementary Data."

Of the 752 domestic banking offices of M&T's subsidiary banks at December 31, 2018, 297 are owned in fee and 455 are leased.

Item 3. 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.

DOL ESOP Investigations: 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 DOL investigations, in August 2017, the DOL commenced two lawsuits against Wilmington Trust N.A. relating to its role as trustee of two ESOP transactions. 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. Wilmington Trust N.A. is responding to these investigations and lawsuits. Under applicable transaction documents, Wilmington Trust N.A. may be entitled to indemnification by the ESOP Plan Sponsors.

The DOL investigations of Wilmington Trust N.A. could result in civil proceedings, damages, resolutions or settlements, including, among other things, enforcement actions, which could seek damages and/or fines, penalties, restitution, injunctions, enforcement efforts, reputational damage or additional costs and expenses.

Due to their complex nature, it is difficult to estimate when litigation and investigatory matters such as these may be resolved. As set forth in the introductory paragraph to this Item 3 — 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 above.

Item 4. Mine Safety Disclosures.

Not applicable.

Executive Officers of the Registrant

Information concerning M&T's executive officers is presented below as of February 20, 2019. The year the officer was first appointed to the indicated position with M&T or its subsidiaries is shown parenthetically. In the case of each entity noted below, officers' terms run until the first meeting of the board of directors after such entity's annual meeting, which in the case of M&T takes place immediately following the Annual Meeting of Shareholders, and until their successors are elected and qualified.

René F. Jones, age 54, is chief executive officer, chairman of the board and a director of M&T and M&T Bank (2017). Previously, he was an executive vice president (2006) of M&T and a vice chairman (2014) of M&T Bank. Mr. Jones had overall responsibility for the Company's Wealth and Institutional Services Division, Treasury Division, and Mortgage and Consumer Lending Divisions. Mr. Jones is chairman of the board, president (2009) and a trustee (2005) of M&T Real Estate. Mr. Jones is chairman of the board and a director (2014) of Wilmington Trust Investment Advisors, and is a director (2007) of M&T Insurance Agency. Mr. Jones is chairman of the board and a director (2014) of Wilmington Trust Company. Previously, Mr. Jones served as chief financial officer (2005) of M&T, M&T Bank and Wilmington Trust, N.A. and had held a number of management positions within M&T Bank's Finance Division since 1992.

Richard S. Gold, age 58, is president, chief operating officer and a director of M&T and M&T Bank (2017). Mr. Gold oversees the Consumer Banking, Business Banking, Legal, Human Resources and Enterprise Transformation Divisions. Previously, he was an executive vice president (2006) and chief risk officer (2014) of M&T and was a vice chairman and chief risk officer (2014) of M&T Bank. Mr. Gold had been responsible for overseeing the Company's governance and strategy for risk management, as well as relationships with key regulators and supervisory agencies. He served as a senior vice president of M&T Bank from 2000 to 2006 and has held a number of management positions since he began his career with M&T Bank in 1989. Mr. Gold is chairman, president and chief executive officer (2018) and a director (2017) of Wilmington Trust, N.A.

Kevin J. Pearson, age 57, is an executive vice president (2002) and a director (2018) of M&T and is a vice chairman (2014) and a director (2018) of M&T Bank. He is a member of the Directors Advisory Council (2006) of the New York City/Long Island Division of M&T Bank. Mr. Pearson has oversight of the Commercial Banking, Credit, Technology and Banking Operations, and Wealth and Institutional Services Divisions. Previously, Mr. Pearson served as senior vice president of M&T Bank from 2000 to 2002, and has held a number of management positions since he began his career with M&T Bank in 1989. He is an executive vice president (2003) and a trustee (2014) of M&T Real Estate, chairman of the board and a director (2018) of Wilmington Trust Company, an executive vice president and a director of Wilmington Trust, N.A. (2014), and a director (2018) of Wilmington Trust Investment Advisors.

Robert J. Bojdak, age 63, is an executive vice president and chief credit officer (2004) of M&T and M&T Bank, and is responsible for the Company's Credit Division. From April 2002 to April 2004, Mr. Bojdak served as senior vice president and credit deputy for M&T Bank. He is an executive vice president and a director (2004) of Wilmington Trust, N.A.

Janet M. Coletti, age 55, is an executive vice president (2015) of M&T and M&T Bank, overseeing the Company's Human Resources Division. Ms. Coletti previously served as senior vice president of M&T Bank, most recently responsible for the Business Banking Division, and has held a number of management positions within M&T Bank since 1985.

John L. D'Angelo, age 56, is an executive vice president and chief risk officer (2017) of M&T and M&T Bank. Mr. D'Angelo is responsible for overseeing the Company's governance and strategy for risk management, as well as relationships with key regulators and supervisory agencies. Mr. D'Angelo is an executive vice president and chief risk officer (2018) of Wilmington Trust, N.A. and an executive vice president and a director (2017) of Wilmington Trust Company. He served as a senior vice president and general auditor of M&T Bank from 2005 to 2017 and has held a number of positions since he began his career with M&T Bank in 1987.

William J. Farrell II, age 61, is an executive vice president (2011) of M&T and M&T Bank, and is responsible for managing administrative and business development functions of the Company's Wealth and Institutional Services Division, which includes Institutional Client Services and M&T Insurance Agency. Mr. Farrell joined M&T through the Wilmington Trust Corporation acquisition. He joined Wilmington Trust Corporation in 1976, and held a number of senior management positions, most recently as executive vice president and head of the Corporate Client Services business. Mr. Farrell is president, chief executive officer and a director (2012) of Wilmington Trust Company, an executive vice president and a director (2013) of Wilmington Trust, N.A. and a director (2016) of Wilmington Trust Investment Advisors.

Brian E. Hickey, age 66, is an executive vice president of M&T (1997) and M&T Bank (1996). He is a member of the Directors Advisory Council (1994) of the Rochester Division of M&T Bank. Mr. Hickey is responsible for co-managing with Mr. Martocci M&T Bank's commercial banking lines of business and all of the non-retail banking segments in Upstate New York, Western New York and in the Northern, Central and Western Pennsylvania and Connecticut regions. Mr. Hickey is also responsible for the Dealer Commercial Services line of business.

Christopher E. Kay, age 53, is an executive vice president (2018) of M&T and M&T Bank, and is responsible for all aspects of Consumer Banking, including the Mortgage, Consumer Lending and Retail businesses, and Business Banking and Marketing. Prior to joining M&T in 2018, Mr. Kay served as chief innovation officer at Humana from 2014 to 2018 and as managing director of Citi Ventures from 2007 to 2013.

Darren J. King, age 49, is an executive vice president (2010) and chief financial officer (2016) of M&T and executive vice president (2009) and chief financial officer (2016) of M&T Bank. Mr. King has responsibility for the overall financial management of the Company and oversees the Finance and Treasury Divisions. Prior to his current role, Mr. King was the Retail Banking executive with responsibility for overseeing Business Banking, Consumer Deposits, Consumer Lending and M&T Bank's Marketing and Communications team. Mr. King previously served as senior vice president of M&T Bank and has held a number of management positions within M&T Bank since 2000. Mr. King is an executive vice president (2009) and chief financial officer (2016) of Wilmington Trust, N.A. and is chairman of the board, president and a director (2018) of M&T Real Estate.

Gino A. Martocci, age 53, is an executive vice president (2014) of M&T and M&T Bank, and is responsible for co-managing with Mr. Hickey M&T Bank's commercial banking lines of business and all non-retail banking segments in the metropolitan New York City, New Jersey, Philadelphia, Delaware, Baltimore and Washington, D.C. markets. He is also responsible for M&T Realty Capital. Mr. Martocci was a senior vice president of M&T Bank from 2002 to 2013, serving in a number of management positions. He is chairman of the board (2018) and a director (2009) of M&T Realty Capital, an executive vice president of M&T Real Estate, co-chairman of the Senior Loan Committee and a member of the New York City Mortgage Investment Committee. Mr. Martocci is also a member of the Directors Advisory Council of the New York City/Long Island (2013) and the New Jersey (2015) Divisions of M&T Bank.

Doris P. Meister, age 63, is an executive vice president (2016) of M&T and M&T Bank, and is responsible for overseeing the Company's wealth management business, including Wilmington Trust Wealth Management, M&T Securities and Wilmington Trust Investment Advisors. Ms. Meister is an executive vice president and a director (2016) of Wilmington Trust, N.A., an executive vice president and director of Wilmington Trust Company (2016) and chairman of the board, chief executive officer and a director (2017) of Wilmington Trust Investment Advisors. Prior to joining M&T in 2016, Ms. Meister served as President of U.S. Markets for BNY Mellon Wealth Management from 2009 to 2016 and prior to that was a Managing Director of the New York office of Bernstein Global Wealth Management.

Michael J. Todaro, age 57, is an executive vice president (2015) of M&T and M&T Bank, and is responsible for Enterprise Transformation, a Division of the Company dedicated to improving business processes, removing impediments to progress and evaluating/integrating external opportunities. Previously, Mr. Todaro was responsible for the Mortgage, Consumer Lending and Customer Asset Management Divisions. Mr. Todaro previously served as senior vice president of M&T Bank and has held a number of management positions within M&T Bank's Mortgage Division since 1995. He is an executive vice president (2015) of Wilmington Trust, N.A.

Michele D. Trolli, age 57, is an executive vice president (2005) and chief technology and operations officer (2018) of M&T and M&T Bank. Previously, she was chief information officer (2005) of M&T and M&T Bank. Ms. Trolli leads a wide range of the Company's Technology and Banking Operations, which includes banking services, corporate services, digital and telephone banking, the enterprise data office, enterprise and cyber security, and enterprise technology.

D. Scott N. Warman, age 53, is an executive vice president (2009) and treasurer (2008) of M&T and M&T Bank. He is responsible for managing the Company's Treasury Division. Mr. Warman previously served as senior vice president of M&T Bank and has held a number of management positions within M&T Bank since 1995. He is an executive vice president and treasurer of Wilmington Trust, N.A. (2008), a trustee of M&T Real Estate (2009), and is an executive vice president and treasurer of Wilmington Trust Company (2012).

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

M&T's common stock is traded under the symbol MTB on the New York Stock Exchange. See cross-reference sheet for disclosures incorporated elsewhere in this Annual Report on Form 10-K for market prices of M&T's common stock, approximate number of common shareholders at year-end, frequency and amounts of dividends on common stock and restrictions on the payment of dividends.

During the fourth quarter of 2018, M&T did not issue any shares of its common stock that were not registered under the Securities Act of 1933.

Equity Compensation Plan Information

The following table provides information as of December 31, 2018 with respect to shares of common stock that may be issued under M&T's existing equity compensation plans. M&T's existing equity compensation plans include the M&T Bank Corporation 2001 Stock Option Plan, the 2005 Incentive Compensation Plan, which replaced the 2001 Stock Option Plan, and the 2009 Equity Incentive Compensation Plan, each of which has been previously approved by shareholders, and the M&T Bank Corporation 2008 Directors' Stock Plan and the M&T Bank Corporation Deferred Bonus Plan, each of which did not require shareholder approval.

The table does not include information with respect to shares of common stock subject to outstanding options and rights assumed by M&T in connection with mergers and acquisitions of the companies that originally granted those options and rights. Footnote (1) to the table sets forth the total number of shares of common stock issuable upon the exercise of such assumed options and rights as of December 31, 2018, and their weighted-average exercise price.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options or Rights (A)	Weighted-Average Exercise Price of Outstanding Options or Rights (B)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column A) (C)
Equity compensation plans approved by security holders	137,360	$ 169.08	2,833,428
Equity compensation plans not approved by security holders	21,986	84.23	26,870
Total	159,346	$ 157.36	2,860,298

(1) As of December 31, 2018, a total of 89,502 shares of M&T common stock were issuable upon exercise of outstanding options or rights assumed by M&T in connection with merger and acquisition transactions. The weighted-average exercise price of those outstanding options or rights is $134.37 per common share.

Equity compensation plans adopted without the approval of shareholders are described below:

2008 Directors' Stock Plan. M&T maintains a plan for non-employee members of the Board of Directors of M&T and the members of its Directors Advisory Council, and the non-employee members of the Board of Directors of M&T Bank and the members of its regional Directors Advisory Councils, which allows such directors, advisory directors and members of regional Directors Advisory Councils to receive all or a portion of their directorial compensation in shares of M&T common stock.

Deferred Bonus Plan. M&T maintains a deferred bonus plan which was frozen effective January 1, 2010 and did not allow any additional deferrals after that date. Prior to January 1, 2010, the plan allowed eligible officers of M&T and its subsidiaries to elect to defer all or a portion of their annual incentive compensation awards and allocate such awards to several investment options, including M&T common stock. At the time of the deferral election, participants also elected the timing of distributions from the plan. Such distributions are payable in cash, with the exception of balances allocated to M&T common stock which are distributable in the form of shares of common stock.

Performance Graph

The following graph contains a comparison of the cumulative shareholder return on M&T common stock against the cumulative total returns of the KBW Nasdaq Bank Index, compiled by Keefe, Bruyette & Woods, Inc., and the S&P 500 Index, compiled by Standard & Poor's Corporation, for the five-year period beginning on December 31, 2013 and ending on December 31, 2018. The KBW Nasdaq Bank Index is a market capitalization index consisting of 24 banking stocks representing leading large U.S. national money centers, regional banks and thrift institutions.

Comparison of Five-Year Cumulative Return*

Shareholder Value at Year End*

	2013	2014	2015	2016	2017	2018
M&T Bank Corporation	$100	110	109	144	160	137
KBW Nasdaq Bank Index	100	109	110	141	168	138
S&P 500 Index	100	114	115	129	157	150

* Assumes a $100 investment on December 31, 2013 and reinvestment of all dividends.

In accordance with and to the extent permitted by applicable law or regulation, the information set forth above under the heading "Performance Graph" shall not be incorporated by reference into any future filing under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act and shall not be deemed to be "soliciting material" or to be "filed" with the SEC under the Securities Act or the Exchange Act.

Issuer Purchases of Equity Securities

On July 17, 2018, M&T announced that it had been authorized by its Board of Directors to purchase up to $1.8 billion of shares of its common stock through June 30, 2019. Repurchase programs authorized in July 2017 and February 2018 by M&T's Board of Directors were completed during 2018. In total, M&T repurchased 12,295,817 common shares for $2.2 billion during 2018.

During the fourth quarter of 2018, M&T purchased shares of its common stock as follows:

	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)
October 1 - October 31, 2018	1,108,508	$ 159.02	1,108,508	$ 1,125,229,000
November 1 - November 30, 2018	1,360,000	167.47	1,360,000	897,474,000
December 1 - December 31, 2018	591,666	161.97	591,492	801,666,000
Total	3,060,174	$ 163.34	3,060,000	

(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.

Item 6. Selected Financial Data.

See cross-reference sheet for disclosures incorporated elsewhere in this Annual Report on Form 10-K.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Corporate Profile

M&T Bank Corporation ("M&T") is a bank holding company headquartered in Buffalo, New York with consolidated assets of $120.1 billion at December 31, 2018. The consolidated financial information presented herein reflects M&T and all of its subsidiaries, which are referred to collectively as "the Company." M&T's wholly owned bank subsidiaries are Manufacturers and Traders Trust Company ("M&T Bank") and Wilmington Trust, National Association ("Wilmington Trust, N.A.").

M&T Bank, with total assets of $119.6 billion at December 31, 2018, is a New York-chartered commercial bank with 750 domestic banking offices in New York State, Maryland, New Jersey, Pennsylvania, Delaware, Connecticut, Virginia, West Virginia and the District of Columbia, a full-service commercial banking office in Ontario, Canada, and an office in the Cayman Islands. M&T Bank and its subsidiaries offer a broad range of financial services to a diverse base of consumers, businesses, professional clients, governmental entities and financial institutions located in their markets. Lending is largely focused on consumers residing in the states noted above and on small and medium size businesses based in those areas, although loans are originated through offices in other states and in Ontario, Canada. Certain lending activities are also conducted in other states through various subsidiaries. Trust and other fiduciary services are offered by M&T Bank and through its wholly owned subsidiary, Wilmington Trust Company. Other subsidiaries of M&T Bank include: M&T Real Estate Trust, a commercial mortgage lender; M&T Realty Capital Corporation, a multifamily commercial mortgage lender; M&T Securities, Inc., which provides brokerage, investment advisory and insurance services; Wilmington Trust Investment Advisors, Inc., which serves as an investment advisor to the Wilmington Funds, a family of proprietary mutual funds, and other funds and institutional clients; and M&T Insurance Agency, Inc., an insurance agency.

Wilmington Trust, N.A. is a national bank with total assets of $4.3 billion at December 31, 2018. Wilmington Trust, N.A. and its subsidiaries offer various trust and wealth management services. Wilmington Trust, N.A. offered selected deposit and loan products on a nationwide basis, largely through telephone, Internet and direct mail marketing techniques.

Critical Accounting Estimates

The Company's significant accounting policies conform with generally accepted accounting principles ("GAAP") and are described in note 1 of Notes to Financial Statements. In applying those accounting policies, management of the Company is required to exercise judgment in determining many of the methodologies, assumptions and estimates to be utilized. Certain of the critical accounting estimates are more dependent on such judgment and in some cases may contribute to volatility in the Company's reported financial performance should the assumptions and estimates used change over time due to changes in circumstances. Some of the more significant areas in which management of the Company applies critical assumptions and estimates include the following:

- Accounting for credit losses — The allowance for credit losses represents the amount that in management's judgment appropriately reflects credit losses inherent in the loan and lease portfolio as of the balance sheet date. A provision for credit losses is recorded to adjust the level of the allowance as deemed necessary by management. In estimating losses inherent in the loan and lease portfolio, assumptions and judgment are applied to measure amounts and timing of expected future cash flows, collateral values and other factors used to determine the borrowers' abilities to repay obligations. Historical loss trends are also considered, as are economic conditions, industry trends, portfolio trends and borrower-specific financial data. In accounting for loans acquired at a discount that is, in part, attributable to credit quality which are initially recorded at fair value with no carry-over of an acquired entity's previously established allowance for credit losses, the cash flows expected at acquisition in excess of estimated fair value are recognized as interest income over the remaining lives of the loans. Subsequent decreases in the expected principal cash flows require the Company to evaluate the need for additions to the Company's allowance for credit losses. Subsequent improvements in expected cash flows result first in the recovery of any applicable allowance for credit losses and then in the recognition of additional interest income over the remaining lives of the loans. Changes in the circumstances considered when determining management's estimates and assumptions could result in changes in those estimates and assumptions, which may result in adjustment of the allowance or, in the case of loans acquired at a discount, increases in interest income in future periods. A detailed discussion of facts and circumstances considered by management in determining the allowance for credit losses is included herein under the heading "Provision for Credit Losses" and in note 4 of Notes to Financial Statements.
- Valuation methodologies — Management of the Company applies various valuation methodologies to assets and liabilities which often involve a significant degree of judgment, particularly when liquid markets do not exist for the particular items being

valued. Quoted market prices are referred to when estimating fair values for certain assets, such as trading assets, most investment securities, and residential real estate loans held for sale and related commitments. However, for those items for which an observable liquid market does not exist, management utilizes significant estimates and assumptions to value such items. Examples of these items include loans, deposits, borrowings, goodwill, core deposit and other intangible assets, other assets and liabilities obtained or assumed in business combinations, capitalized servicing assets, pension and other postretirement benefit obligations, estimated residual values of property associated with leases, and certain derivative and other financial instruments. These valuations require the use of various assumptions, including, among others, discount rates, rates of return on assets, repayment rates, cash flows, default rates, costs of servicing and liquidation values. The use of different assumptions could produce significantly different results, which could have material positive or negative effects on the Company's results of operations, financial condition or disclosures of fair value information. In addition to valuation, the Company must assess whether there are any declines in value below the carrying value of assets that should be considered other than temporary or otherwise require an adjustment in carrying value and recognition of a loss in the consolidated statement of income. Examples include investment securities, other investments, loan servicing rights, goodwill and core deposit and other intangible assets, among others. Specific assumptions and estimates utilized by management are discussed in detail herein in management's discussion and analysis of financial condition and results of operations and in notes 1, 2, 3, 6, 7, 12, 18, 19 and 20 of Notes to Financial Statements.

• Commitments, contingencies and off-balance sheet arrangements — Information regarding the Company's commitments and contingencies, including guarantees and contingent liabilities arising from litigation, and their potential effects on the Company's results of operations is included in note 21 of Notes to Financial Statements. In addition, the Company is routinely subject to examinations from various governmental taxing authorities. Such examinations may result in challenges to the tax return treatment applied by the Company to specific transactions. Management believes that the assumptions and judgment used to record tax-related assets or liabilities have been appropriate. Should tax laws change or the tax authorities determine that management's assumptions were inappropriate, the result and adjustments required could have a material effect on the Company's results of operations. Information regarding the Company's income taxes is presented in note 13 of Notes to Financial Statements. The recognition or de-recognition in the Company's consolidated financial statements of assets and liabilities held by so-called variable interest entities is subject to the interpretation and application of complex accounting pronouncements or interpretations that require management to estimate and assess the relative significance of the Company's financial interests in those entities and the degree to which the Company can influence the most important activities of the entities. Information relating to the Company's involvement in such entities and the accounting treatment afforded each such involvement is included in note 19 of Notes to Financial Statements.

Overview

The Company recorded net income during 2018 of $1.92 billion or $12.74 of diluted earnings per common share, up 36% and 46%, respectively, from $1.41 billion or $8.70 of diluted earnings per common share in 2017. Basic earnings per common share also increased 46% to $12.75 in 2018 from $8.72 in 2017. Net income in 2016 aggregated $1.32 billion, while diluted and basic earnings per common share were $7.78 and $7.80, respectively. Expressed as a rate of return on average assets, net income in 2018 was 1.64%, compared with 1.17% in 2017 and 1.06% in 2016. The return on average common shareholders' equity was 12.82% in 2018, 8.87% in 2017 and 8.16% in 2016.

During 2018, there were several matters that were notable. The Company adopted amended accounting guidance in the first quarter of 2018 to separately report equity securities at fair value on the consolidated balance sheet (which were previously reported as investment securities available for sale) with changes in fair value recognized in the consolidated statement of income rather than through other comprehensive income. Net unrealized losses on investments in equity securities in 2018 were $6 million. 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 $.71 of diluted earnings per common share in 2018. That matter received final court approval and is now settled. Income tax expense in 2018 reflects the reduction of the corporate Federal income tax rate from 35% to 21% by the Tax Cuts and Jobs Act ('the Tax Act") that was enacted on December 22, 2017. In December 2018, M&T received approval from the Internal Revenue Service to change its tax return treatment for certain loan fees retroactive to 2017. Given the reduction in Federal income tax rates resulting from the Tax Act, that change in treatment resulted in a $15 million reduction of income tax expense in 2018's fourth quarter. Following receipt of the approval, the Company increased its fourth quarter contribution to The M&T Charitable Foundation to $20 million that, after applicable tax effect, reduced net income by $15 million.

There were also several notable items in 2017. M&T adopted new accounting guidance for share-based transactions in 2017. That guidance requires that all excess tax benefits and tax deficiencies associated with share-based compensation be recognized in income tax expense in the income statement. Previously, tax effects resulting from changes in M&T's share price subsequent to the grant date were recorded through shareholders' equity at the time of vesting or exercise. The adoption of the amended accounting guidance resulted in a $22 million reduction of income tax expense in 2017, or $.15 of diluted earnings per common share. Similarly, income tax expense in 2018 was reduced by $9 million, or $.06 of diluted earnings per common share.

On October 9, 2017, WT Corp. reached an agreement with the U.S. Attorney's Office for the District of Delaware related to alleged conduct that took place between 2009 and 2010 prior to the acquisition of WT Corp. by M&T. The result was a payment of $44 million that was not deductible for income tax purposes. WT Corp. did not admit any liability. As of September 30, 2017, the Company increased the reserve for legal matters by $50 million. That increase, coupled with the non-deductible nature of the $44 million payment, reduced net income in 2017 by $48 million, or $.31 of diluted earnings per common share. As noted, the Tax Act enacted in December 2017 reduced the Federal income tax rate and made other changes to U.S. corporate income tax laws. GAAP requires that the impact of the provisions of the Tax Act be accounted for in the period of enactment. Accordingly, the incremental income tax expense recorded by the Company in the fourth quarter of 2017 related to the Tax Act was $85 million, representing $.56 of diluted earnings per common share. The additional expense was largely attributable to the reduction in carrying value of net deferred tax assets reflecting lower future tax benefits resulting from the lower corporate tax rate.

During the fourth quarter of 2017, the Company realized after-tax gains from sales of investment securities of $14 million ($21 million pre-tax) that added $.09 to diluted earnings per common share. Gains from investment securities increased the Company's net income in 2016 by $18 million ($30 million pre-tax), representing $.12 of diluted earnings per common share. The Company increased its contribution to The M&T Charitable Foundation by $44 million in the final 2017 quarter, bringing total charitable contributions for all of 2017 to $50 million, thereby reducing net income by $30 million, or $.20 of diluted earnings per common share.

With regard to 2016, the Company incurred acquisition and integration-related expenses (included herein as merger-related expenses) associated with the November 2015 acquisition of Hudson City Bancorp, Inc. (“Hudson City”) that totaled $22 million after tax effect, or $.14 of diluted earnings per common share.

Taxable-equivalent net interest income rose 7% to $4.09 billion in 2018 from $3.82 billion in 2017. That improvement resulted predominantly from a widening of the net interest margin, or taxable-equivalent net interest income expressed as a percentage of average earning assets, from 3.47% in 2017 to 3.83% in 2018. Partially offsetting the impact of the expanded net interest margin was a 3% decline in average earning assets to $106.8 billion in 2018 from $110.0 billion in 2017. Taxable-equivalent net interest income in 2017 was 9% above $3.50 billion in 2016 due predominantly to a widening of the net interest margin, from 3.11% in 2016, partially offset by a $2.6 billion or 2% decline in average earning assets.

The provision for credit losses declined 21% to $132 million in 2018 from $168 million in 2017. The provision in 2016 was $190 million.

Other income totaled $1.86 billion and $1.85 billion in 2018 and 2017, respectively, compared with $1.83 billion in 2016. As compared with 2017, higher trust income and income from Bayview Lending Group LLC ("BLG") in 2018 were partially offset by the impact of gains on investment securities during 2017. Comparing 2017 to 2016, higher trust income and service charges on deposit accounts were partially offset by a decline in residential mortgage banking revenues and lower gains on investment securities.

Other expense increased 5% to $3.29 billion in 2018 from $3.14 billion in 2017. Other expense in 2016 aggregated $3.05 billion. Included in those amounts are expenses considered by M&T to be “nonoperating” in nature, consisting of amortization of core deposit and other intangible assets of $25 million, $31 million and $43 million in 2018, 2017 and 2016, respectively, and merger-related expenses of $36 million in 2016 associated with the acquisition of Hudson City. Exclusive of those nonoperating expenses, noninterest operating expenses totaled $3.26 billion in 2018, compared with $3.11 billion in 2017 and $2.97 billion in 2016. The increase in such expenses in 2018 as compared with 2017 was largely due to higher costs for salaries and employee benefits, professional services, and increases to the reserve for legal matters, partially offset by lower FDIC assessments and charitable contributions. Contributing to the increase in noninterest operating expenses in 2017 as compared with 2016 were higher costs for salaries and employee benefits, professional services and charitable contributions, and increases to the reserve for legal matters.

The efficiency ratio measures the relationship of noninterest operating expenses to revenues. The Company’s efficiency ratio, or noninterest operating expenses (as previously defined) divided by the sum of taxable-equivalent net interest income and noninterest income (exclusive of gains and losses from bank investment securities), was 54.8% in 2018, compared with 55.1% and 56.1% in 2017 and 2016, respectively. The calculations of the efficiency ratio are presented in table 2.

The Company’s effective tax rate was 23.5%, 39.4% and 36.1% in 2018, 2017 and 2016, respectively. The lower rate in 2018 reflects the reduction of the corporate Federal income tax rate from 35% to 21% as of January 1, 2018.

On June 28, 2018, M&T announced that the Federal Reserve did not object to M&T’s revised 2018 Capital Plan. That capital plan includes the repurchase of up to $1.8 billion of common shares during the four-quarter period starting on July 1, 2018 and an increase in the quarterly common stock dividend in the third quarter of 2018 of up to $.20 per share to $1.00 per share. M&T may continue to pay dividends and interest on equity and debt instruments included in regulatory capital, including preferred stock, trust preferred securities and subordinated debt that were outstanding at December 31, 2017, consistent with the contractual terms of those instruments. Dividends are subject to declaration by M&T’s Board of Directors. In July 2018, M&T’s Board of Directors authorized a new stock repurchase program to repurchase up to $1.8 billion of shares of M&T’s

common stock subject to all applicable regulatory limitations, including those set forth in M&T's revised 2018 Capital Plan. Also during 2018's third quarter, M&T increased the quarterly common stock cash dividend by $.20 to $1.00 per share after having increased the dividend from $.75 to $.80 per share during the second quarter of 2018.

On February 5, 2018, M&T received notice of non-objection from the Federal Reserve to repurchase an additional $745 million of shares of its common stock by June 30, 2018. This amount was in addition to the previously announced $900 million of common stock authorized for repurchase under M&T's 2017 Capital Plan and approved by M&T's Board of Directors. A new stock repurchase program was approved by M&T's Board of Directors on February 21, 2018 authorizing the repurchase of up to $745 million. In accordance with authorized stock repurchase programs, M&T repurchased 12,295,817 shares of its common stock at a cost of $2.2 billion during 2018. The dollar amount and number of common shares repurchased were $1.2 billion and 7,369,105, respectively, in 2017 and $641 million and 5,607,595, respectively, in 2016.

Table 1

EARNINGS SUMMARY

Dollars in millions

Increase (Decrease)(a) 2017 to 2018 Amount	%	2016 to 2017 Amount	%		2018	2017	2016	2015	2014	Compounc Growth Ra 5 Years 2013 to 2018
$418.2	10	$279.6	7	Interest income(b)	$4,620.6	$4,202.4	$3,922.8	$3,195.3	$2,980.5	9 %
139.6	36	(39.2)	(9)	Interest expense	526.4	386.8	426.0	328.3	280.4	13
278.6	7	318.8	9	Net interest income(b)	4,094.2	3,815.6	3,496.8	2,867.0	2,700.1	9
(36.0)	(21)	(22.0)	(12)	Less: provision for credit losses	132.0	168.0	190.0	170.0	124.0	(7)
(27.6)	—	(9.0)	(30)	Gain (loss) on bank investment securities	(6.3)	21.3	30.3	—	—	—
32.4	2	34.2	2	Other income	1,862.3	1,829.9	1,795.7	1,825.1	1,779.3	—
				Less:						
103.5	6	30.7	2	Salaries and employee benefits	1,752.3	1,648.8	1,618.1	1,532.4	1,418.0	5
44.3	3	62.2	5	Other expense	1,535.8	1,491.5	1,429.3	1,290.5	1,271.5	4
171.6	7	273.1	13	Income before income taxes	2,530.1	2,358.5	2,085.4	1,699.2	1,665.9	7
				Less:						
(12.7)	(37)	7.6	28	Taxable-equivalent adjustment(b)	21.9	34.6	27.0	24.5	23.7	(3)
(325.5)	(36)	172.3	23	Income taxes	590.1	915.6	743.3	595.0	576.0	(1)
$509.8	36	$93.2	7	Net income	$1,918.1	$1,408.3	$1,315.1	$1,079.7	$1,066.2	11%

(a) Changes were calculated from unrounded amounts.

(b) Interest income data are on a taxable-equivalent basis. The taxable-equivalent adjustment represents additional income taxes that would be due if all interest income were subject to income taxes. This adjustment, which is related to interest received on qualified municipal securities, industrial revenue financings and preferred equity securities, is based on a composite income tax rate of approximately 26% in 2018 and 39% in prior years.

Supplemental Reporting of Non-GAAP Results of Operations

As a result of business combinations and other acquisitions, the Company had intangible assets consisting of goodwill and core deposit and other intangible assets totaling $4.6 billion and $4.7 billion at December 31, 2017 and 2016, respectively. Included in such intangible assets was goodwill of $4.6 billion at each of those dates. Amortization of core deposit and other intangible assets, after-tax effect, totaled $18 million, $19 million and $26 million during 2018, 2017 and 2016, respectively.

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 gains and expenses associated with merging acquired operations into the Company, since such items are considered by management to be "nonoperating" in nature. Those merger-related expenses generally consist of professional services and other temporary help fees associated with the actual or planned conversion of systems and/or integration of operations; costs related to branch and office consolidations; costs related to termination of existing contractual arrangements to purchase various services; initial marketing and promotion expenses designed to introduce M&T Bank to its new customers; severance; incentive compensation costs; travel costs; and printing, supplies and other costs of completing the transactions and commencing operations in new markets and offices. Merger-related expenses associated with M&T's November 1, 2015 acquisition of Hudson City totaled $36 million ($22 million after-tax) in 2016. There were no merger-related expenses in 2018 or 2017. 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 was $1.94 billion in 2018, compared with $1.43 billion in 2017 and $1.36 billion in 2016. Diluted net operating earnings per common share were $12.86 in 2018, $8.82 in 2017 and $8.08 in 2016.

Net operating income expressed as a rate of return on average tangible assets was 1.72% in 2018, compared with 1.23% in 2017 and 1.14% in 2016. Net operating income represented a return on average tangible common equity of 19.09% in 2018, compared with 13.00% in 2017 and 12.25% in 2016.

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

Table 2

RECONCILIATION OF GAAP TO NON-GAAP MEASURES

	2018	2017	2016
Income statement data			
Dollars in thousands, except per share			
Net income			
Net income	$1,918,080	$1,408,306	$1,315,114
Amortization of core deposit and other intangible assets(a)	18,075	19,025	25,893
Merger-related expenses(a)	—	—	21,685
Net operating income	$1,936,155	$1,427,331	$1,362,692
Earnings per common share			
Diluted earnings per common share	$12.74	$8.70	$7.78
Amortization of core deposit and other intangible assets(a)	.12	.12	.16
Merger-related expenses(a)	—	—	.14
Diluted net operating earnings per common share	$12.86	$8.82	$8.08
Other expense			
Other expense	$3,288,062	$3,140,325	$3,047,485
Amortization of core deposit and other intangible assets	(24,522)	(31,366)	(42,613)
Merger-related expenses	—	—	(35,755)
Noninterest operating expense	$3,263,540	$3,108,959	$2,969,117
Merger-related expenses			
Salaries and employee benefits	$—	$—	$5,334
Equipment and net occupancy	—	—	1,278
Outside data processing and software	—	—	1,067
Advertising and marketing	—	—	10,522
Printing, postage and supplies	—	—	1,482
Other costs of operations	—	—	16,072
Total	$—	$—	$35,755
Efficiency ratio			
Noninterest operating expense (numerator)	$3,263,540	$3,108,959	$2,969,117
Taxable-equivalent net interest income	4,094,199	3,815,614	3,496,849
Other income	1,856,000	1,851,143	1,825,996
Less: Gain (loss) on bank investment securities	(6,301)	21,279	30,314
Denominator	$5,956,500	$5,645,478	$5,292,531
Efficiency ratio	54.79 %	55.07 %	56.10 %
Balance sheet data			
In millions			
Average assets			
Average assets	$116,959	$120,860	$124,340
Goodwill	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(59)	(86)	(117)
Deferred taxes	16	33	46
Average tangible assets	$112,323	$116,214	$119,676
Average common equity			
Average total equity	$15,630	$16,295	$16,419
Preferred stock	(1,232)	(1,232)	(1,297)
Average common equity	14,398	15,063	15,122

Goodwill	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(59)	(86)	(117)
Deferred taxes	16	33	46
Average tangible common equity	$9,762	$10,417	$10,458
At end of year			
Total assets			
Total assets	$120,097	$118,593	$123,449
Goodwill	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(47)	(72)	(98)
Deferred taxes	13	19	39
Total tangible assets	$115,470	$113,947	$118,797
Total common equity			
Total equity	$15,460	$16,251	$16,487
Preferred stock	(1,232)	(1,232)	(1,232)
Undeclared dividends — cumulative preferred stock	(3)	(3)	(3)
Common equity, net of undeclared cumulative preferred dividends	14,225	15,016	15,252
Goodwill	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(47)	(72)	(98)
Deferred taxes	13	19	39
Total tangible common equity	$9,598	$10,370	$10,600

(a) After any related tax effect.

Net Interest Income/Lending and Funding Activities

Net interest income expressed on a taxable-equivalent basis aggregated $4.09 billion in 2018, up 7% from $3.82 billion in 2017. That growth resulted from a widening of the net interest margin to 3.83% in 2018 from 3.47% in 2017. The improvement in the net interest margin was predominantly the result of higher yields on loans due to the higher interest rate environment in 2018. The Federal Reserve raised its target Federal funds rate in .25% increments three times during 2017 and four times during 2018. Partially offsetting the favorable impact of higher interest rates was a $3.2 billion, or 3%, decline in average earning assets to $106.8 billion in 2018 from $110.0 billion in 2017 that reflected decreases in average balances of investment securities of $1.8 billion and average loan and lease balances of $1.4 billion.

Average loans and leases declined to $87.4 billion in 2018 from $88.8 billion in 2017.

Average balances of commercial loans and leases decreased $149 million or 1% to $21.8 billion in 2018 from $22.0 billion in 2017. Average balances of commercial real estate loans increased $485 million or 1% to $33.7 billion in 2018 from $33.2 billion in 2017. Consumer loans averaged $13.6 billion in 2018, up $930 million or 7% from $12.6 billion in 2017, due to growth in recreational finance loans and automobile loans that was partially offset by declines in outstanding balances of home equity loans and lines of credit. Recreational finance loans predominantly consisted of loans to consumers that are secured by recreational vehicles and boats. Average residential real estate loans declined $2.7 billion or 13% to $18.3 billion in 2018 from $21.0 billion in 2017, predominantly due to ongoing repayments of loans obtained in the acquisition of Hudson City.

Taxable-equivalent net interest income in 2017 increased 9% from $3.50 billion in 2016. That growth resulted from a widening of the net interest margin to 3.47% in 2017 from 3.11% in 2016. The improvement in the net interest margin was predominantly the result of higher yields on loans due to the higher interest rate environment in 2017. The Federal Reserve raised its target Federal funds rate by .25% in December 2016 and by the same increment in each of March, June and December 2017. Partially offsetting the favorable impact of higher interest rates was a $2.6 billion, or 2%, decline in average earning assets to $110.0 billion in 2017 from $112.6 billion in 2016 that reflected lower interest-bearing deposits at banks.

Average loans and leases increased to $88.8 billion in 2017 from $88.6 billion in 2016. Average balances of commercial loans and leases increased $584 million or 3% to $22.0 billion in 2017 from $21.4 billion in 2016. Average commercial real estate loans increased $2.3 billion or 7% in 2017 to $33.2 billion from $30.9 billion in 2016. Consumer loans averaged $12.6 billion in 2017, up $784 million or 7% from $11.8 billion in 2016 due to growth in recreational finance and automobile loans. Average residential real estate loans declined $3.5 billion or 14% to $21.0 billion in 2017 from $24.5 billion in 2016, predominantly due to ongoing repayments of loans obtained in the acquisition of Hudson City.

Table 3

AVERAGE BALANCE SHEETS AND TAXABLE-EQUIVALENT RATES

	2018			2017			2016			2015		
	Average Balance	Interest	Average Rate	Average Balance	Interest	Average Rate	Average Balance	Interest	Average Rate	Average Balance	Interest	Ave Rat
	(Average balance in millions of dollars; interest in thousands of dollars)											
	$21,832	$1,003,462	4.60 %	21,981	853,389	3.88%	21,397	736,240	3.44%	19,899	638,199	3.2
	33,682	1,712,247	5.01	33,196	1,481,427	4.40	30,915	1,277,196	4.06	28,276	1,193,271	4.1
	18,330	766,552	4.18	21,013	832,574	3.96	24,463	958,521	3.92	11,458	468,790	4.0
	13,555	703,919	5.19	12,625	608,253	4.82	11,841	538,144	4.54	11,203	499,650	4.4
	87,399	4,186,180	4.79	88,815	3,775,643	4.25	88,616	3,510,101	3.96	70,836	2,799,910	3.9
	5,614	108,182	1.93	5,578	61,326	1.10	8,846	45,516	.51	5,775	15,252	.26
to resell												
	1	23	1.95	—	6	1.56	—	3	.86	34	35	.10
	58	1,479	2.55	71	1,202	1.70	85	1,442	1.71	86	1,247	1.4
	12,915	299,543	2.32	14,701	336,446	2.29	14,025	332,926	2.37	13,514	336,873	2.4
	16	747	4.58	43	1,951	4.62	90	3,839	4.24	143	6,391	4.4
	763	24,454	3.21	794	25,791	3.25	894	29,006	3.24	799	35,599	4.4
	13,694	324,744	2.37	15,538	364,188	2.34	15,009	365,771	2.44	14,456	378,863	2.6
	106,766	4,620,608	4.33	110,002	4,202,365	3.82	112,556	3,922,833	3.49	91,187	3,195,307	3.5
	(1,019)			(1,012)			(976)			(935)		
	1,312			1,295			1,273			1,242		
	9,900			10,575			11,487			10,286		
	$116,959			120,860			124,340			101,780		
y												
sits	$52,102	215,411	.41	53,399	133,177	.25	52,194	87,704	.17	43,885	46,140	.11
	6,025	51,423	.85	8,161	61,505	.75	12,253	102,841	.84	4,641	27,059	.58
	394	5,633	1.43	185	1,186	.64	199	797	.40	216	615	.28
	58,521	272,467	.47	61,745	195,868	.32	64,646	191,342	.30	48,742	73,814	.15
	331	5,386	1.63	205	1,511	.74	894	3,625	.41	548	1,677	.31

	8,845	248,556	2.81	8,302	189,372	2.28	10,252	231,017	2.25	10,217	252,766	2.4
	67,697	526,409	.78	70,252	386,751	.55	75,792	425,984	.56	59,507	328,257	.55
	31,893			32,520			30,160			27,324		
	1,739			1,793			1,969			1,721		
	101,329			104,565			107,921			88,552		
	15,630			16,295			16,419			13,228		
quity	$116,959			120,860			124,340			101,780		
			3.55			3.27			2.93			2.9
			.28			.20			.18			.19
ing		$4,094,199	3.83 %		3,815,614	3.47%		3,496,849	3.11%		2,867,050	3.1

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

Table 4 summarizes average loans and leases outstanding in 2018 and percentage changes in the major components of the portfolio over the past two years.

Table 4

AVERAGE LOANS AND LEASES

(Net of unearned discount)

		Percent Increase (Decrease) from	
	2018	2017 to 2018	2016 to 2017
	(In millions)		
Commercial, financial, etc.	$ 21,832	(1)%	3 %
Real estate — commercial	33,682	1	7
Real estate — consumer	18,330	(13)	(14)
Consumer			
Home equity lines and loans	5,051	(7)	(6)
Recreational finance	3,693	30	23
Automobile	3,583	10	19
Other	1,228	14	7
Total consumer	13,555	7	7
Total	$ 87,399	(2)%	— %

Commercial loans and leases, excluding loans secured by real estate, totaled $23.0 billion at December 31, 2018, representing 26% of total loans and leases. Table 5 presents information on commercial loans and leases as of December 31, 2018 relating to geographic area, size, borrower industry and whether the loans are secured by collateral or unsecured. Of the $23.0 billion of commercial loans and leases outstanding at the end of 2018, approximately $20.6 billion, or 90%, were secured, while 39% were granted to businesses in New York State and 23% to businesses in each of Pennsylvania and the Mid-Atlantic area (which includes Delaware, Maryland, New Jersey, Virginia, West Virginia and the District of Columbia). The Company provides financing for leases to commercial customers, primarily for equipment. Commercial leases included in total commercial loans and leases at December 31, 2018 aggregated $1.3 billion, of which 47% were secured by collateral located in New York State, 18% were secured by collateral in Pennsylvania and another 16% were secured by collateral in the Mid-Atlantic area.

Table 5

COMMERCIAL LOANS AND LEASES, NET OF UNEARNED DISCOUNT

(Excludes Loans Secured by Real Estate)

December 31, 2018

	New York	Pennsylvania	Mid-Atlantic(a)	Other	Total	Percent of Total
	(Dollars in millions)					
Automobile dealerships	$1,783	$ 1,032	$680	$1,284	$4,779	21 %
Services	1,317	639	1,140	348	3,444	15
Manufacturing	1,449	856	588	428	3,321	14
Wholesale	828	645	468	137	2,078	9
Financial and insurance	660	302	439	391	1,792	8
Health services	634	259	649	131	1,673	7
Real estate investors	889	182	224	144	1,439	6
Transportation, communications, utilities	390	348	379	296	1,413	6
Retail	298	329	349	186	1,162	5
Construction	355	319	338	91	1,103	5
Public administration	150	60	24	12	246	1
Agriculture, forestry, fishing, etc.	21	60	45	—	126	1
Other	81	218	54	49	402	2
Total	$8,855	$ 5,249	$5,377	$3,497	$22,978	100 %
Percent of total	39 %	23 %	23 %	15 %	100 %	
Percent of dollars outstanding						
Secured	82 %	83 %	86 %	89 %	84 %	
Unsecured	11	13	10	4	10	
Leases	7	4	4	7	6	
Total	100 %	100 %	100 %	100 %	100 %	
Percent of dollars outstanding by size of loan						
Less than $1 million	22 %	18 %	26 %	10 %	20 %	
$1 million to $5 million	22	22	21	21	22	
$5 million to $10 million	15	22	16	15	17	
$10 million to $20 million	17	19	16	20	17	
$20 million to $30 million	9	9	9	12	9	
$30 million to $50 million	7	6	3	13	7	
Greater than $50 million	8	4	9	9	8	
Total	100 %	100 %	100 %	100 %	100 %	

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

International loans included in commercial loans and leases totaled $109 million and $77 million at December 31, 2018 and 2017, respectively. Included in such loans were $78 million and $54 million, respectively, of loans at M&T Bank's commercial banking office in Ontario, Canada. The remaining international loans are predominantly to domestic companies with foreign operations.

Loans secured by real estate, including outstanding balances of home equity loans and lines of credit which the Company classifies as consumer loans, represented approximately 65% of the loan and lease portfolio during 2018, compared with 67% and 69% in 2017 and 2016, respectively. At December 31, 2018, the Company held approximately $34.4 billion of commercial real estate loans, $17.2 billion of consumer real estate loans secured by one-to-four family residential properties (including $205 million of loans originated for sale) and $4.9 billion of outstanding balances of home equity loans and lines of credit, compared with $33.4 billion, $19.6 billion and $5.3 billion, respectively, at December 31, 2017. The decrease in residential real estate loans reflects the continued pay down of loans obtained in the Hudson City acquisition. Included in commercial real estate loans at December 31, 2018 and 2017 were construction loans of $8.8 billion and $8.1 billion, respectively, including amounts due from builders and developers of residential real estate aggregating $1.7 billion and $1.6 billion at December 31, 2018 and 2017, respectively. Commercial real estate loans also included loans held for sale totaling $347 million and $22 million at December 31, 2018 and 2017, respectively. International loans included in commercial real estate loans totaled $49 million at December 31, 2018 and $65 million at December 31, 2017.

Commercial real estate loans originated by the Company include fixed rate instruments with monthly payments and a balloon payment of the remaining unpaid principal at maturity, in many cases five years after origination. For borrowers in good standing, the terms of such loans may be extended by the customer for an additional five years at the then-current market rate of interest. The Company also originates fixed rate commercial real estate loans with maturities of greater than five years, generally having original maturity terms of approximately seven to ten years, and adjustable-rate commercial real estate loans. Adjustable-rate commercial real estate loans represented approximately 76% of the commercial real estate loan portfolio at the 2018 year-end. Table 6 presents commercial real estate loans by geographic area, type of collateral and size of the loans outstanding at December 31, 2018. New York City area commercial real estate loans totaled $8.7 billion at December 31, 2018. The $7.8 billion of investor-owned commercial real estate loans in the New York City area were largely secured by multifamily residential properties, retail space and office space. The Company’s experience has been that office, retail and service-related properties tend to demonstrate more volatile fluctuations in value through economic cycles and changing economic conditions than do multifamily residential properties. Approximately 33% of the aggregate dollar amount of New York City area loans were for loans with outstanding balances of $10 million or less, while loans of more than $50 million made up approximately 18% of the total.

Table 6

COMMERCIAL REAL ESTATE LOANS, NET OF UNEARNED DISCOUNT

December 31, 2018

	New York State						
	New York City	Other	Penn-sylvania	Mid-Atlantic(a)	Other	Total	Percent of Total
	(Dollars in millions)						
Investor-owned							
Permanent finance by property type							
Office	$1,485	$946	$461	$1,324	$390	$4,606	14 %
Retail/Service	1,379	604	341	981	629	3,934	11
Apartments/Multifamily	1,410	826	432	454	654	3,776	11
Hotel	685	408	308	714	589	2,704	8
Health facilities	426	455	369	830	456	2,536	7
Industrial/Warehouse	251	215	278	314	365	1,423	4
Other	124	30	12	60	3	229	1
Total permanent	5,760	3,484	2,201	4,677	3,086	19,208	56 %
Construction/Development							
Commercial							
Construction	1,387	607	856	1,884	1,375	6,109	18 %
Land/Land development	276	27	31	216	63	613	2
Residential builder and developer							
Construction	323	9	30	244	528	1,134	3
Land/Land development	27	19	44	151	315	556	1
Total construction/ development	2,013	662	961	2,495	2,281	8,412	24 %
Total investor-owned	7,773	4,146	3,162	7,172	5,367	27,620	80 %
Owner-occupied by industry(b)							
Other services	177	384	190	582	34	1,367	4 %
Retail	151	136	288	394	161	1,130	3
Automobile dealerships	163	202	270	178	211	1,024	3
Health services	124	341	143	213	29	850	2
Wholesale	95	90	116	332	106	739	2
Manufacturing	80	209	131	150	28	598	2
Real estate investors	34	35	40	40	3	152	1
Other	126	186	225	341	6	884	3
Total owner-occupied	950	1,583	1,403	2,230	578	6,744	20 %
Total commercial real estate	$8,723	$5,729	$4,565	$9,402	$5,945	$34,364	100 %
Percent of total	26 %	17 %	13 %	27 %	17 %	100 %	

Percent of dollars outstanding by size of loan						
Less than $1 million	4 %	15 %	13 %	10 %	10 %	10 %
$1 million to $5 million	16	27	24	19	13	19
$5 million to $10 million	13	20	20	16	14	16
$10 million to $30 million	32	31	30	28	36	31
$30 million to $50 million	17	6	9	16	16	14
$50 million to $100 million	14	1	4	11	9	9
Greater than $100 million	4	—	—	—	2	1
Total	100 %	100 %	100 %	100 %	100 %	100 %

(a) Includes Delaware, Maryland, New Jersey, Virginia, West Virginia and the District of Columbia.
(b) Includes $341 million of construction loans.

Commercial real estate loans secured by properties located in other parts of New York State, Pennsylvania and the Mid-Atlantic area tend to have a greater diversity of collateral types and include a significant amount of lending to customers who use the mortgaged property in their trade or business (owner-occupied). Approximately 62% of the aggregate dollar amount of commercial real estate loans in New York State secured by properties located outside of the New York City area were for loans with outstanding balances of $10 million or less. Of the outstanding balances of commercial real estate loans in Pennsylvania and the Mid-Atlantic area, approximately 57% and 45%, respectively, were for loans with outstanding balances of $10 million or less.

Commercial real estate loans secured by properties located outside of Pennsylvania, the Mid-Atlantic area and New York State comprised 17% of total commercial real estate loans as of December 31, 2018.

Commercial real estate construction and development loans made to investors presented in table 6 totaled $8.4 billion at December 31, 2018, or 10% of total loans and leases. Approximately 98% of those construction loans had adjustable interest rates. Included in such loans at the 2018 year-end were $1.7 billion of loans to builders and developers of residential real estate properties. The remainder of the commercial real estate construction loan portfolio was comprised of loans made for various purposes, including the construction of office buildings, multifamily residential housing, retail space and other commercial development.

M&T Realty Capital Corporation, a commercial real estate lending subsidiary of M&T Bank, participates in the Delegated Underwriting and Servicing ("DUS") program of Fannie Mae, pursuant to which commercial real estate loans are originated in accordance with terms and conditions specified by Fannie Mae and sold. Under this program, loans are sold with partial credit recourse to M&T Realty Capital Corporation. The amount of recourse is generally limited to one-third of any credit loss incurred by the purchaser on an individual loan, although in some cases the recourse amount is less than one-third of the outstanding principal balance. The Company's maximum credit risk for recourse associated with sold commercial real estate loans was approximately $3.4 billion and $3.3 billion at December 31, 2018 and 2017, respectively. There have been no material losses incurred as a result of those recourse arrangements. At December 31, 2018 and 2017, commercial real estate loans serviced by the Company for other investors were $18.2 billion and $16.2 billion, respectively. Reflected in commercial real estate loans serviced for others were loans sub-serviced for others that had outstanding balances of $2.7 billion and $2.6 billion at December 31, 2018 and 2017, respectively.

Real estate loans secured by one-to-four family residential properties were $17.2 billion at December 31, 2018, including approximately 36% secured by properties located in New York State, 8% secured by properties located in Pennsylvania, 27% secured by properties in New Jersey and 12% secured by properties located in other Mid-Atlantic areas. The Company's portfolio of alternative ("Alt-A") residential real estate loans (referred to as "limited documentation loans") held for investment totaled $2.5 billion at December 31, 2018, down from $3.0 billion at December 31, 2017. A portfolio of limited documentation loans acquired with the Hudson City transaction totaled $2.4 billion and $2.8 billion at December 31, 2018 and 2017, respectively. Alt-A loans represent loans that at origination typically included some form of limited borrower documentation requirements as compared with more traditional residential real estate loans. Hudson City loans that were eligible for limited documentation processing were available in amounts up to 65% of the lower of the appraised value or purchase price of the property. Hudson City discontinued its limited documentation loan program in January 2014. Loans in the Company's Alt-A portfolio prior to the Hudson City transaction were originated by the Company prior to 2008. Loans to individuals to finance the construction of one-to-four family residential properties totaled $41 million at December 31, 2018 and $22 million at December 31, 2017, or less than .1% of total loans and leases at each of those dates. Information about the credit performance of the Company's residential real estate loans is included herein under the heading "Provision For Credit Losses."

Consumer loans comprised approximately 16% and 15% of total loans and leases at December 31, 2018 and 2017, respectively. Outstanding balances of home equity loans and lines of credit represent the largest component of the consumer loan portfolio. Such balances represented approximately 5% and 6% of total loans and leases at December 31, 2018 and December 31, 2017, respectively. Approximately 40% of home equity loans and lines of credit outstanding at December 31, 2018 were secured by properties in New York State, 25% in Maryland, 21% in Pennsylvania and 3% in New Jersey. Outstanding recreational finance loan balances increased to $4.1 billion at December 31, 2018 from $3.3 billion at December 31, 2017. That growth was due largely to new dealer relationships. Outstanding automobile loan balances rose to $3.7 billion at December 31, 2018 from $3.5 billion at December 31, 2017. That increase reflects continued consumer demand for motor vehicles.

Table 7 presents the composition of the Company's loan and lease portfolio at the end of 2018, including outstanding balances to businesses and consumers in New York State, Pennsylvania, the Mid-Atlantic area and other states.

Table 7

LOANS AND LEASES, NET OF UNEARNED DISCOUNT

December 31, 2018

		Percent of Dollars Outstanding					
				Mid-Atlantic			
	Outstandings (In millions)	New York	Penn- sylvania	Maryland	New Jersey	Other(a)	Other
Real estate							
Residential	$ 17,154	36%	8 %	6 %	27%	6 %	17%
Commercial	34,364	42	13	11	7	10	17
Total real estate	51,518	40%	11 %	9 %	14%	8 %	18%
Commercial, financial, etc.	21,715	38%	23 %	12%	6 %	6 %	15%
Consumer							
Home equity lines and loans	4,860	40%	21 %	25%	3 %	9 %	2 %
Recreational finance	4,127	15	7	4	5	6	63
Automobile	3,659	25	18	10	7	14	26
Other secured or guaranteed	348	22	15	11	2	23	27
Other unsecured	976	39	20	25	2	11	3
Total consumer	13,970	28%	16 %	14%	5 %	10 %	27%
Total loans	87,203	38%	15 %	11%	10%	8 %	18%
Commercial leases	1,263	47%	18 %	10%	3 %	3 %	19%
Total loans and leases	$ 88,466	38%	15 %	11%	10%	8 %	18%

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

The investment securities portfolio averaged $13.7 billion in 2018, compared with $15.5 billion and $15.0 billion in 2017 and 2016, respectively. The lower average balances in 2018 as compared with 2017 largely reflect maturities and pay downs of mortgage-backed securities offset, in part, by

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purchases of approximately $450 million of U.S. Treasury notes. During 2017, the Company purchased $1.4 billion of mortgage-backed securities, predominantly Ginnie Mae and Freddie Mac securities, and $219 million of U.S. Treasury notes. The Company sold $512 million of available-for-sale Fannie Mae and Freddie Mac mortgage-backed securities during 2017 largely due to the limitations on the amount of those types of securities that are permitted to be included in the highest tier of "high quality liquid assets" for the Liquidity Coverage Ratio ("LCR") calculation. The Company also sold a portion of its holdings of Fannie Mae and Freddie Mac preferred stock during December 2017 for a gain of $18 million. The preferred stock sold had a cost basis (after previous write-downs) of $3 million. During 2016, the Company sold all of its collateralized debt obligations that were held in the available-for-sale investment securities portfolio for a gain of approximately $30 million. Those securities were sold in large part in response to the provisions of the so-called Volcker Rule included in the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"). Sales of investment securities were not significant in 2018.

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 Company manages its investment securities portfolio, in part, to satisfy the LCR requirements established by regulators. The LCR is 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 this Form 10-K under the heading "Liquidity."

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. 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, ongoing repayments, the levels of deposits, and management of liquidity (including the LCR) 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 the investment securities portfolio in 2018, 2017 or 2016. Based on management's assessment of future cash flows associated with individual investment securities as of December 31, 2018, the Company concluded that declines in value below amortized cost associated with the investment securities portfolio 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 20 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 $5.7 billion in 2018, $5.6 billion in 2017 and $8.9 billion in 2016. Interest-bearing deposits at banks averaged $5.6 billion in each of 2018 and 2017, compared with $8.8 billion in 2016. 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 deposits of commercial entities, purchases or maturities of investment securities, or borrowings to manage the Company's liquidity.

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

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comparable maturities. Average core deposits totaled $87.3 billion in 2018, compared with $92.1 billion in 2017 and $92.2 billion in 2016. The decline in average core deposits in 2018 as compared with 2017 reflected a $2.0 billion, or 27%, decrease in time deposits, predominantly related to maturities of relatively high-rate time deposits, and lower balances of savings and interest-checking deposits, largely money-market savings deposits, and noninterest-bearing deposits. The decline in average core deposits in 2017 as compared with 2016 reflected a $3.6 billion, or 33%, decrease in time deposits, predominantly related to maturities of relatively high-rate deposits obtained in the acquisition of Hudson City, partially offset by growth in noninterest-bearing deposits, in part reflecting balances associated with trust customers. Funding provided by core deposits represented 82% of average earning assets in each of 2018 and 2016, compared with 84% in 2017. Table 8 summarizes average core deposits in 2018 and percentage changes in the components of such deposits over the past two years. Core deposits totaled $85.5 billion and $90.4 billion at December 31, 2018 and 2017, respectively.

Table 8

AVERAGE CORE DEPOSITS

	2018 (In millions)	Percent Increase (Decrease) from 2017 to 2018	2016 to 2017
Savings and interest-checking deposits	$ 50,131	(4)%	2 %
Time deposits	5,324	(27)	(33)
Noninterest-bearing deposits	31,893	(2)	8
Total	$ 87,348	(5)%	— %

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 $675 million in 2018, $775 million in 2017 and $1.2 billion in 2016. The declines in such deposits in 2018 and 2017 from 2016 were predominantly the result of maturities of higher-rate time deposits. Cayman Islands office deposits averaged $394 million in 2018, $185 million in 2017 and $199 million in 2016. Brokered time deposits averaged $25 million in 2018 and $59 million in each of 2017 and 2016. The Company also had brokered savings and interest-bearing transaction accounts that averaged $2.0 billion in 2018, $1.2 billion in 2017 and $1.1 billion in 2016. 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 arrangements that at the time they were entered into had a contractual maturity of one year or less. Average short-term borrowings were $331 million in 2018, $205 million in 2017 and $894 million in 2016. The higher levels in 2016 were predominantly due to short-term borrowings from the Federal Home Loan Bank ("FHLB") of New York assumed in the Hudson City acquisition. Those short-term fixed rate borrowings matured throughout 2016. However, in December 2018, the

Company borrowed $4.2 billion from the FHLB of New York for LCR and other liquidity purposes, $3.0 billion of which matured on the first business day of 2019 and $1.2

billion matured on February 1, 2019. Also included in short-term borrowings were unsecured federal funds borrowings, which generally mature on the next business day, that averaged $206 million, $132 million and $151 million in 2018, 2017 and 2016, respectively. Overnight federal funds borrowings totaled $137 million at December 31, 2018 and $125 million at December 31, 2017.

Long-term borrowings averaged $8.8 billion in 2018, $8.3 billion in 2017 and $10.3 billion in 2016. Unsecured senior notes totaled $5.5 billion and $5.0 billion at December 31, 2018 and 2017, respectively. Average balances of outstanding senior notes were $5.9 billion in 2018, compared with $4.8 billion and $5.3 billion in 2017 and 2016, respectively. During January 2018, M&T Bank issued $650 million of 2.625% fixed rate and $350 million of variable rate senior notes that pay interest quarterly and are indexed to the three-month LIBOR. Those fixed and variable rate notes mature in 2021. On December 31, 2018, M&T Bank redeemed $750 million of fixed rate senior notes that were due to mature on January 31, 2019. In addition, in July 2018 M&T issued $750 million of senior notes that mature in July 2023, of which $500 million have a 3.55% fixed interest rate and $250 million have a variable rate paid quarterly at rates that are indexed to the three-month LIBOR. Also included in average long-term borrowings were amounts borrowed from the Federal Home Loan Banks of New York and Pittsburgh of $577 million in 2018, compared with $820 million and $1.2 billion in 2017 and 2016, respectively, and subordinated capital notes of $1.5 billion in 2018 and 2016, compared with $1.7 billion in 2017. During 2017, M&T Bank issued $500 million of fixed rate subordinated capital notes that mature in 2027. Junior subordinated debentures associated with trust preferred securities that were included in average long-term borrowings were $521 million in 2018, $518 million in 2017 and $515 million in 2016. Also included in long-term borrowings were agreements to repurchase securities, which averaged $415 million in 2018, $490 million in 2017 and $1.8 billion during 2016. The repurchase agreements at December 31, 2018 totaled $409 million and have various repurchase dates through 2020, however, the contractual maturities of the underlying securities extend beyond such repurchase dates. Additional information regarding long-term borrowings, including information regarding contractual maturities of such borrowings, is provided in note 8 of Notes to Financial Statements.

The Company has utilized interest rate swap agreements to modify the repricing characteristics of certain components of its loans and long-term debt. As of December 31, 2018, interest rate swap agreements were used as fair value hedges of approximately $4.4 billion of outstanding fixed rate long-term borrowings. Additionally, interest rate swap agreements with a notional amount of $2.9 billion were used as cash flow hedges of interest payments associated with variable rate commercial real estate loans. Further information on interest rate swap agreements is provided herein and in note 18 of Notes to Financial Statements.

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, can impact net interest income. Net interest spread, or the difference between the taxable-equivalent yield on earning assets and the rate paid on interest-bearing liabilities, was 3.55% in 2018, compared with 3.27% in 2017 and 2.93% in 2016. The yield on the Company’s earning assets increased 51 basis points (hundredths of one percent) to 4.33% in 2018 from 3.82% in 2017 and the rate paid on interest-bearing liabilities increased 23 basis points to .78% in 2018 from .55% in 2017. During 2016, the yield on earning assets was 3.49% and the rate paid on interest-bearing liabilities was .56%. The widening of the net interest spread in each comparison predominantly reflects the effect of increases in short-term interest rates initiated by the Federal Reserve during late 2016, 2017 and 2018 that contributed most significantly to higher yields on loans and leases.

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 $39.1 billion in 2018, compared with $39.7 billion in 2017 and $36.8 billion in 2016. The decrease in average net interest-

free funds in 2018 from 2017 and the increase in such funds in 2017 as compared with 2016 reflected changes in balances of noninterest-bearing deposits. Those deposits averaged $31.9 billion in 2018, $32.5 billion in 2017 and $30.2 billion in 2016. The decline in such balances from 2017 to 2018 was due to lower levels of deposits of commercial and trust customers. The growth in average noninterest-bearing deposits in 2017 as compared with 2016 reflected higher levels of deposits of trust customers. Shareholders' equity averaged $15.6 billion, $16.3 billion and $16.4 billion in 2018, 2017 and 2016, respectively. The decline in shareholders' equity from 2017 to 2018 was predominantly due to repurchases of M&T common stock. Goodwill and core deposit and other intangible assets averaged $4.7 billion in each of 2018, 2017 and 2016. The cash surrender value of bank owned life insurance averaged $1.8 billion in each of 2018 and 2017, compared with $1.7 billion in 2016. Increases in the cash surrender value of bank owned life insurance 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 .28% in 2018, .20% in 2017 and .18% in 2016. The increase in 2018 reflects the higher rates on interest-bearing liabilities used to value net interest-free funds.

Reflecting the changes to the net interest spread and the contribution of net interest-free funds as described herein, the Company's net interest margin was 3.83% in 2018, 3.47% in 2017 and 3.11% in 2016. 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 earnings 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 $7.3 billion (excluding $12.6 billion of forward-starting swap agreements) at December 31, 2018, $7.4 billion (excluding $2.0 billion of forward-starting swap agreements) at December 31, 2017 and $900 million at December 31, 2016. 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. At December 31, 2018 and 2017, interest rate swap agreements with notional amounts of $2.85 billion were serving as cash flow hedges of interest payments associated with variable rate commercial real estate loans. There were no interest rate swap agreements designated as cash flow hedges at December 31, 2016. At December 31, 2018, 2017 and 2016, interest swap agreements with notional amounts of $4.45 billion, $4.55 billion and $900 million, respectively, were serving as fair value hedges of fixed rate long-term borrowings.

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 coincident with the Company's adoption of amended hedge accounting guidance on January 1, 2018 is recorded as an adjustment to the interest income or interest expense of the respective hedged item. Prior to 2018, hedge ineffectiveness was recorded in "other revenues from operations" in the Company's consolidated statement of income. 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 in 2018, 2017 and 2016 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 18 of Notes to Financial Statements. Information regarding the effective portion of cash flow hedges is presented in note 15 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 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 table 9.

Table 9

INTEREST RATE SWAP AGREEMENTS

.	Year Ended December 31					
	2018		2017		2016	
	Amount	Rate(a)	Amount	Rate(a)	Amount	Rate(a)
	(Dollars in thousands)					
Increase (decrease) in:						
Interest income	$(13,339)	(.01)%	$3,916	—%	$—	—%
Interest expense	11,418	.02	(20,966)	(.03)	(36,866)	(.05)
Net interest income/margin	$(24,757)	(.03)%	$24,882	.02%	$36,866	.04%
Average notional amount (c)	$7,795,479		$4,766,575		$1,357,650	
Rate received (b)		2.09%		2.30%		4.39%
Rate paid (b)		2.41%		1.79%		1.64%

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

In addition to interest rate swap agreements, the Company has entered into 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 its earning assets. At December 31, 2018 and December 31, 2017, outstanding notional amounts of such agreements totaled $15.6 billion and $6.3 billion, respectively. There were no similar agreements at December 31, 2016. The fair value of those interest rate floor agreements was $1.9 million at December 31, 2018 and $3.7 million at December 31, 2017 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.

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 was $132 million in 2018, compared with $168 million in 2017 and $190 million in 2016. Net charge-offs of loans were $130 million in 2018, $140 million in 2017 and $157 million in 2016. Net charge-offs as a percentage of average loans and leases outstanding were .15% in 2018, compared with .16% in 2017 and .18% in 2016. A summary of the Company's loan charge-offs, provision and allowance for credit losses is presented in table 10 and in note 4 of Notes to Financial Statements.

Table 10

LOAN CHARGE-OFFS, PROVISION AND ALLOWANCE FOR CREDIT LOSSES

	2018	2017	2016	2015	2014
	(Dollars in thousands)				
Allowance for credit losses beginning balance	$1,017,198	$988,997	$955,992	$919,562	$916,676
Charge-offs during year					
Commercial, financial, leasing, etc.	60,414	64,941	59,244	60,983	58,943
Real estate — construction	262	267	137	3,221	1,882
Real estate — mortgage	27,369	28,463	30,801	26,382	33,527
Consumer	143,196	130,927	141,073	107,787	84,390
Total charge-offs	231,241	224,598	231,255	198,373	178,742
Recoveries during year					
Commercial, financial, leasing, etc.	27,903	21,196	30,167	30,284	22,188
Real estate — construction	19,379	8,894	4,062	6,308	4,725
Real estate — mortgage	8,322	12,671	11,124	7,626	14,640
Consumer	45,883	42,038	28,907	20,585	16,075
Total recoveries	101,487	84,799	74,260	64,803	57,628
Net charge-offs	129,754	139,799	156,995	133,570	121,114
Provision for credit losses	132,000	168,000	190,000	170,000	124,000
Allowance for credit losses ending balance	$1,019,444	$1,017,198	$988,997	$955,992	$919,562
Net charge-offs as a percent of:					
Provision for credit losses	98.30 %	83.21 %	82.63 %	78.57 %	97.67 %

Average loans and leases, net of unearned discount	.15 %	.16 %	.18 %	.19 %	.19 %
Allowance for credit losses as a percent of loans and leases, net of unearned discount, at year-end	1.15 %	1.16 %	1.09 %	1.09 %	1.38 %

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 $727 million and $1.0 billion at December 31, 2018 and 2017, respectively. The nonaccretable balance related to remaining principal losses associated with loans acquired at a discount as of December 31, 2018 and 2017 is presented in table 11.

During each of the last three years, based largely on improving economic conditions and borrower repayment performance, the Company’s estimates of cash flows expected to be generated by loans acquired at a discount and accounted for based on expected cash flows improved, resulting in increases in the accretable yield. In 2018, estimated cash flows expected to be generated by acquired loans increased by $55 million, or approximately 4%. That improvement reflected higher estimated principal, interest and other recoveries, largely associated with commercial real estate loans. In 2017, estimated cash flows expected to be generated by acquired loans increased by $66 million, or approximately 3%. That improvement reflected higher estimated principal, interest and other recoveries largely associated with purchased-impaired residential real estate loans. In 2016, estimated cash flows expected to be generated by acquired loans increased by $50 million, or approximately 2%. That improvement reflected a lowering of estimated principal losses by approximately $33 million, primarily due to a $19 million decrease in expected principal losses in the commercial real estate loan portfolios, as well as interest and other recoveries.

Table 11

NONACCRETABLE BALANCE — PRINCIPAL

	Remaining balance December 31, 2018	Remaining balance December 31, 2017
	(In thousands)	
Commercial, financial, leasing, etc.	$3,106	3,586
Commercial real estate	7,545	28,783
Residential real estate	25,817	33,880
Consumer	6,099	7,482
Total	$42,567	73,731

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 Hudson City loans acquired in 2015 at a premium totaled $9.3 billion and $11.5 billion at December 31, 2018 and December 31, 2017, 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 aggregated $894 million at December 31, 2018, compared with $883 million and $920 million at December 31, 2017 and 2016, respectively. As a percentage of total loans and leases outstanding, nonaccrual loans represented 1.01% at the end of each of 2018 and 2016 and 1.00% at December 31, 2017. The lower level of nonaccrual loans at December 31, 2017 as compared with December 31, 2016 reflects the effects of borrower repayment performance and charge-offs.

Accruing loans past due 90 days or more (excluding loans acquired at a discount) were $223 million or .25% of total loans and leases at December 31, 2018, compared with $244 million or .28% at December 31, 2017 and $301 million or .33% at December 31, 2016. Those amounts included loans guaranteed by government-related entities of $192 million, $235 million and $283 million at December 31, 2018, 2017 and 2016, 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 $165 million at December 31, 2018, $207 million at December 31, 2017 and $224 million at December 31, 2016. 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. A summary of nonperforming assets and certain past due, renegotiated and impaired loan data and credit quality ratios is presented in table 12.

Table 12

NONPERFORMING ASSET AND PAST DUE, RENEGOTIATED AND IMPAIRED LOAN DATA

December 31	2018	2017	2016	2015	2014
	(Dollars in thousands)				
Nonaccrual loans	$893,608	882,598	920,015	799,409	799,151
Real estate and other foreclosed assets	78,375	111,910	139,206	195,085	63,635
Total nonperforming assets	$971,983	994,508	1,059,221	994,494	862,786
Accruing loans past due 90 days or more(a)	$222,527	244,405	300,659	317,441	245,020
Government guaranteed loans included in totals above:					
Nonaccrual loans	$34,667	35,677	40,610	47,052	69,095
Accruing loans past due 90 days or more	192,443	235,489	282,659	276,285	217,822
Renegotiated loans	$245,367	221,513	190,374	182,865	202,633
Acquired accruing loans past due 90 days or more(b)	$39,750	47,418	61,144	68,473	110,367
Purchased impaired loans(c):					
Outstanding customer balance	$529,520	688,091	927,446	1,204,004	369,080
Carrying amount	303,305	410,015	578,032	768,329	197,737
Nonaccrual loans to total loans and leases, net of unearned discount	1.01 %	1.00 %	1.01 %	.91 %	1.20 %
Nonperforming assets to total net loans and leases and real estate and other foreclosed assets	1.10 %	1.13 %	1.16 %	1.13 %	1.29 %
Accruing loans past due 90 days or more(a) to total loans and leases, net of unearned discount	.25 %	.28 %	.33 %	.36 %	.37 %

(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.

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 aggregated $303 million at December 31, 2018, or .3% of total loans. Of that amount, $285 million was associated with the acquisition of Hudson City. Purchased impaired loans totaled $410 million at December 31, 2017, of which $378 million was associated with the acquisition of Hudson City.

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 totaled $179 million and $189 million at December 31, 2018 and December 31, 2017, respectively.

Charge-offs of commercial loans and leases, net of recoveries, aggregated $33 million in 2018, $44 million in 2017 and $29 million in 2016. Commercial loans and leases in nonaccrual status were $234 million at December 31, 2018, $241 million at December 31, 2017 and $261 million at December 31, 2016.

Net recoveries of previously charged-off commercial real estate loans were $9 million during 2018, $5 million during 2017 and $2 million in 2016. Reflected in those amounts were a $13 million recovery during 2018 associated with a hotel property and net recoveries of $2 million in 2018, $9 million in 2017 and $4 million in 2016 of loans to residential real estate builders and developers. Commercial real estate loans classified as nonaccrual aggregated $231 million at December 31, 2018, compared with $202 million at December 31, 2017 and $211 million at December 31, 2016. Nonaccrual commercial real estate loans included construction-related loans of $27 million, $17 million and $35 million at the end of 2018, 2017 and 2016, respectively.

Net charge-offs of residential real estate loans totaled $9 million in 2018, $12 million in 2017 and $18 million in 2016. Residential real estate loans in nonaccrual status at December 31, 2018 were $318 million, compared with $332 million and $336 million at December 31, 2017 and 2016, respectively. Nonaccrual limited documentation first mortgage loans were $85 million at December 31, 2018, compared with $96 million and $107 million at December 31, 2017 and 2016, respectively. 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 discontinued its limited documentation loan program in 2008 and Hudson City discontinued its program in 2014. Residential real estate loans past due 90 days or more and accruing interest (excluding loans acquired at a discount) totaled $190 million at December 31, 2018, $233 million at December 31, 2017 and $281 million at December 31, 2016. A substantial portion of such amounts related to guaranteed loans repurchased from government-related entities. Information about the location of nonaccrual and charged-off residential real estate loans as of and for the year ended December 31, 2018 is presented in table 13.

Table 13

SELECTED RESIDENTIAL REAL ESTATE-RELATED LOAN DATA

	December 31, 2018			Year Ended December 31, 2018 Net Charge-offs (Recoveries)	
		Nonaccrual			
	Outstanding Balances	Balances	Percent of Outstanding Balances	Balances	Percent of Average Outstanding Balances
	(Dollars in thousands)				
Residential mortgages:					
New York	$4,998,325	$75,342	1.51 %	$3,663	.07 %
Pennsylvania	1,245,243	14,444	1.16	348	.03
Maryland	1,064,581	12,199	1.15	(309)	(.03)
New Jersey	3,623,703	61,638	1.70	2,685	.07
Other Mid-Atlantic (a)	944,464	8,839	.94	(379)	(.04)
Other	2,711,917	60,463	2.23	3,723	.13
Total	$14,588,233	$232,925	1.60 %	$9,731	.06 %
Residential construction loans:					
New York	$14,145	$109	.77 %	$—	— %
Pennsylvania	4,097	295	7.20	49	1.44
Maryland	5,111	—	—	—	—
New Jersey	5,798	—	—	—	—
Other Mid-Atlantic (a)	8,989	—	—	—	—
Other	2,953	23	.78	(41)	(.85)
Total	$41,093	$427	1.04 %	$8	.03 %
Limited documentation first mortgages:					
New York	$1,104,836	$34,601	3.13 %	$(779)	(.06 %)
Pennsylvania	52,347	5,946	11.36	254	.44
Maryland	30,410	2,384	7.84	148	.44
New Jersey	959,848	24,484	2.55	507	.05
Other Mid-Atlantic (a)	12,066	880	7.29	(261)	(1.01)
Other	365,613	16,390	4.48	(908)	(.24)
Total	$2,525,120	$84,685	3.35 %	$(1,039)	(.04 %)
First lien home equity loans and lines of credit:					
New York	$1,203,136	$15,418	1.28 %	$1,636	.13 %
Pennsylvania	731,294	7,225	.99	1,751	.23
Maryland	598,711	7,664	1.28	1,748	.28
New Jersey	64,678	523	.81	(4)	(.01)
Other Mid-Atlantic (a)	204,084	5,146	2.52	120	.06
Other	26,989	909	3.37	(33)	(.13)
Total	$2,828,892	$36,885	1.30 %	$5,218	.18 %
Junior lien home equity loans and lines of credit:					
New York	$748,248	$16,406	2.19 %	$606	.08 %

Pennsylvania	279,898	2,916	1.04	174	.06
Maryland	602,236	8,735	1.45	1,037	.16
New Jersey	98,780	1,281	1.30	(3)	—
Other Mid-Atlantic (a)	254,416	2,720	1.07	66	.02
Other	41,251	1,915	4.64	(7)	(.02)
Total	$2,024,829	$33,973	1.68 %	$1,873	.09 %
Limited documentation junior lien:					
New York	$616	$—	— %	$40	5.73 %
Pennsylvania	280	—	—	4	1.51
Maryland	1,265	52	4.11	40	3.09
New Jersey	385	171	44.42	—	—
Other Mid-Atlantic (a)	599	—	—	—	—
Other	3,388	211	6.23	—	—
Total	$6,533	$434	6.64 %	$84	1.21 %

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

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Net charge-offs of consumer loans during 2018 aggregated $97 million, compared with $89 million in 2017 and $112 million in 2016. Included in net charge-offs of consumer loans were: automobile loans of $33 million in 2018, $34 million in 2017 and $32 million in 2016; recreational finance loans of $17 million, $16 million and $24 million during 2018, 2017 and 2016, respectively; and home equity loans and lines of credit secured by one-to-four family residential properties of $7 million in 2018, $11 million in 2017 and $17 million in 2016. Nonaccrual consumer loans were $110 million at December 31, 2018, compared with $108 million and $112 million at December 31, 2017 and 2016, respectively. Included in nonaccrual consumer loans at the 2018, 2017 and 2016 year-ends were: automobile loans of $23 million, $24 million and $19 million, respectively; recreational finance loans of $11 million, $6 million and $7 million, respectively; and outstanding balances of home equity loans and lines of credit of $71 million, $75 million and $82 million, respectively. Information about the location of nonaccrual and charged-off home equity loans and lines of credit as of and for the year ended December 31, 2018 is presented in table 13. Information about past due and nonaccrual loans as of December 31, 2018 and 2017 is also included in note 3 of Notes to Financial Statements.

Real estate and other foreclosed assets totaled $78 million at December 31, 2018, compared with $112 million at December 31, 2017 and $139 million at December 31, 2016. Net gains or losses associated with real estate and other foreclosed assets were not material in 2018, 2017 or 2016. At December 31, 2018, the Company’s holding of residential real estate-related properties comprised approximately 99% of foreclosed assets.

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 December 31, 2018 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).

As described in note 4 of Notes to Financial Statements, 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 $2.7 billion at December 31, 2018, compared with $2.5 billion at December 31, 2017. The increase reflects loans to three customers, each operating in different industries and geographic regions, that were added to criticized loans in the fourth quarter of 2018. 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 December 31, 2018, 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 68% (or approximately 28% 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. The balance of junior lien loans and lines that were in nonaccrual status solely as a result of first lien loan performance was $10 million at each of December 31, 2018 and December 31, 2017. 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 December 31, 2018, 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 27% 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 4 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 4 of Notes to Financial Statements.

The inherent base level loss components of the Company’s allowance for credit losses are generally determined by applying loss factors to specific loan balances based on loan type and management’s classification of commercial loans and commercial real estate loans under the Company’s loan grading system. As previously described, loan officers are responsible for continually assigning grades to these loans based on standards outlined in the Company’s Credit Policy. Internal loan grades are also extensively monitored by the Company’s credit department to ensure consistency and strict adherence to the prescribed standards. Loan balances utilized in the inherent base level loss component computations exclude loans and leases for which specific allocations are maintained. 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, financial condition, 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. In determining the allowance for credit losses, management also gives consideration to such factors as customer, industry and geographic concentrations, as well as national and local economic conditions, including: (i) the comparatively poorer economic conditions and unfavorable business climate in many market regions served by the Company, including upstate New York and central Pennsylvania, that result in such regions generally experiencing significantly lesser economic growth and vitality as compared with much of the rest of the country; (ii) portfolio concentrations regarding loan type, collateral type and geographic location, in particular the large concentrations of commercial real estate loans secured by properties in the New York City area and other areas of New York State; and (iii) risk associated with the Company’s portfolio of consumer loans which generally have higher rates of loss than other types of collateralized loans.

The inherent base level loss components related to residential real estate loans and consumer loans are generally determined by applying loss factors to portfolio balances after consideration of 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 for loans secured by residential real estate, including home equity loans and lines of credit, are determined by reference to recent charge-off history and are evaluated (and adjusted if deemed appropriate) through consideration of other factors as previously described.

In evaluating collateral, the Company relies on internally and externally prepared valuations. Residential real estate valuations are usually based on sales of comparable properties in the respective location. Commercial real estate valuations also refer to sales of comparable properties but oftentimes are based on calculations that utilize many assumptions and, as a result, can be highly subjective. Specifically, commercial real estate values can be significantly affected over relatively short periods of time by changes in business climate, economic conditions and interest rates, and, in many cases, the results of operations of businesses and other occupants of the real property. Additionally, management is aware that there is oftentimes a delay in the recognition of credit quality changes in loans and, as a result, in changes to assigned loan grades due to time delays in the manifestation and reporting of underlying events that impact credit quality. Accordingly, loss estimates derived from the inherent base level loss component computation are adjusted for current national and local economic conditions and trends. The Federal Reserve stated in December 2018 that the U.S. labor market has continued to strengthen and that economic activity has been rising at a strong rate. Job gains have been strong, on average, in recent months, and the unemployment rate has remained low. Household spending has continued to grow strongly, while growth of business fixed investment has moderated from its pace earlier in the year. Economic indicators in the most significant market regions served by the Company also showed improvement in 2018. For example, in 2018, average private sector employment in areas served by the Company was 1.4% above year-ago levels, but still trailed the 1.9% U.S. average growth rate. Private sector employment increased 1.1% in upstate New York, 1.5% in areas of Pennsylvania served by the Company, 1.8% in New Jersey, 1.2% in Maryland, 2.1% in Greater Washington D.C. and 1.4% in Delaware. In New York City, private sector employment increased by 1.9% in 2018.

The specific loss components and the inherent base level loss components together comprise the total base level or "allocated" allowance for credit losses. Such allocated portion of the allowance represents management's assessment of losses existing in specific larger balance loans that are reviewed in detail by management and pools of other loans that are not individually analyzed. In addition, the Company has always provided an inherent unallocated portion of the allowance that is intended to recognize probable losses that are not otherwise identifiable. The inherent unallocated allowance includes management's subjective determination of amounts necessary for such things as the possible use of imprecise estimates in determining the allocated portion of the allowance and other risks associated with the Company's loan portfolio which may not be specifically allocable.

A comparative allocation of the allowance for credit losses for each of the past five year-ends is presented in table 14. Amounts were allocated to specific loan categories based on information available to management at the time of each year-end assessment and using the methodology described herein. Variations in the allocation of the allowance by loan category as a percentage of those loans reflect changes in management's estimate of specific loss components and inherent base level loss components, including the impact of delinquencies and nonaccrual loans. The unallocated portion of the allowance for credit losses was equal to .09% of gross loans outstanding at each of December 31, 2018 and December 31, 2017. Considering the inherent imprecision in the many estimates used in the determination of the allocated portion of the allowance, management deliberately remained cautious and conservative in establishing the overall allowance for credit losses. Given the Company's high concentration of real estate loans and considering the other factors already discussed herein, management considers the allocated and unallocated portions of the allowance for credit losses to be prudent and reasonable. Furthermore, the Company's allowance is general in nature and is available to absorb losses from any loan or lease category. Additional information about the allowance for credit losses is included in note 4 of Notes to Financial Statements.

Table 14

ALLOCATION OF THE ALLOWANCE FOR CREDIT LOSSES TO LOAN CATEGORIES

December 31	2018	2017	2016	2015	2014
	(Dollars in thousands)				
Commercial, financial, leasing, etc.	$330,055	$328,599	$330,833	$300,404	$288,038
Real estate	410,780	439,490	423,846	399,069	369,837
Consumer	200,564	170,809	156,288	178,320	186,033
Unallocated	78,045	78,300	78,030	78,199	75,654
Total	$1,019,444	$1,017,198	$988,997	$955,992	$919,562
As a Percentage of Gross Loans and Leases Outstanding					
Commercial, financial, leasing, etc.	1.43 %	1.50 %	1.45 %	1.46 %	1.47 %
Real estate	.80	.83	.75	.72	1.02
Consumer	1.44	1.29	1.29	1.54	1.70

Management believes that the allowance for credit losses at December 31, 2018 appropriately reflected credit losses inherent in the portfolio as of that date. The allowance for credit losses totaled $1.02 billion at each of December 31, 2018 and December 31, 2017 and $989 million at December 31, 2016. As a percentage of loans outstanding, the allowance was 1.15% and 1.16% at December 31, 2018 and 2017, respectively, and 1.09% at December 31, 2016. 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 at the end of 2018, 2017 and 2016 was 114%, 115% and 107%, respectively. 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.

In establishing the allowance for credit losses, management follows the methodology described herein, including taking a conservative view of borrowers' abilities to repay loans. The establishment of the allowance is subjective and requires management to make many judgments about borrower, industry, regional and national economic health and performance. In order to present examples of the possible impact on the allowance from certain changes in credit quality factors, the Company assumed the following scenarios for possible deterioration of credit quality:

- For consumer loans and leases considered smaller balance homogenous loans and evaluated collectively, a 50 basis point increase in loss factors;
- For residential real estate loans and home equity loans and lines of credit, also considered small balance homogenous loans and evaluated collectively, a 15% increase in estimated inherent losses; and
-

For commercial loans and commercial real estate loans, a migration of loans to lower-ranked risk grades resulting in a 30% increase in the balance of classified credits in each risk grade.

For possible improvement in credit quality factors, the scenarios assumed were:

- For consumer loans and leases, a 20 basis point decrease in loss factors;
- For residential real estate loans and home equity loans and lines of credit, a 10% decrease in estimated inherent losses; and
- For commercial loans and commercial real estate loans, a migration of loans to higher-ranked risk grades resulting in a 5% decrease in the balance of classified credits in each risk grade.

The scenario analyses resulted in an additional $93 million that could be identifiable under the assumptions for credit deterioration, whereas under the assumptions for credit improvement a $32 million reduction could occur. These examples are only a few of numerous reasonably possible scenarios that could be utilized in assessing the sensitivity of the allowance for credit losses based on changes in assumptions and other factors.

The Company had no concentrations of credit extended to any specific industry that exceeded 10% of total loans at December 31, 2018, however residential real estate loans comprised approximately 19% of the loan portfolio. Outstanding loans to foreign borrowers aggregated $172 million at December 31, 2018, or .2% of total loans and leases.

Other Income

Other income totaled $1.86 billion in 2018, compared with $1.85 billion and 1.83 billion in 2017 and 2016, respectively. The increase in other income from 2017 to 2018 was largely attributable to higher levels of trust income and income from BLG that were tempered by lower brokerage services income and income from bank owned life insurance. In addition, valuation losses on equity securities were incurred during 2018, compared with gains on the sale of investment securities in 2017. As compared with 2016, the rise in other income in 2017 was largely attributable to higher trust income, merchant discount and credit card fees, service charges on deposit accounts, and lower losses associated with M&T’s share of the operating losses of BLG. Partially offsetting those improvements were a decline in mortgage banking revenues and lower gains on investment securities.

Mortgage banking revenues aggregated $360 million in 2018, $364 million in 2017 and $374 million in 2016. 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 multifamily 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 $239 million in 2018, compared with $245 million in 2017 and $255 million in 2016. The lower residential mortgage banking revenues in each of the last two years as compared with the preceding year resulted from decreased gains from origination activities, reflecting declines in origination volumes and a narrowing of the associated margins.

New commitments to originate residential real estate loans to be sold declined 25% to approximately $2.2 billion in 2018 from $3.0 billion in 2017. Such commitments totaled $3.1 billion in 2016. 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 aggregated to gains of $44 million in 2018, $60 million in 2017 and $71 million in 2016.

Loans held for sale that were secured by residential real estate aggregated $205 million and $356 million at December 31, 2018 and 2017, respectively. Commitments to sell residential real estate loans and commitments to originate residential real estate loans for sale at pre-determined rates totaled $364 million and $245 million, respectively, at December 31, 2018, $595 million and $347 million, respectively, at December 31, 2017 and $777 million and $479 million, respectively, at December 31, 2016. Net recognized unrealized gains on residential real estate loans held for sale, commitments to sell loans and commitments to originate loans for sale were $7 million at December 31, 2018, $10 million at December 31, 2017 and $15 million at December 31, 2016. Changes in such net unrealized gains are recorded in mortgage banking revenues and resulted in net decreases in revenue of $3 million in 2018 and $5 million in 2017. The aggregate impact of changes in net unrealized gains was less than $1 million in 2016.

Revenues from servicing residential real estate loans for others were $195 million in 2018, $185 million in 2017 and $183 million in 2016. Residential real estate loans serviced for others aggregated $79.1 billion at December 31, 2018, $79.2 billion a year earlier and $53.2 billion at December 31, 2016. Reflected in residential real estate loans serviced for others were loans sub-serviced for others of $56.8 billion, $56.6 billion and $30.4 billion at December 31, 2018, 2017 and 2016, respectively. Revenues earned for sub-servicing loans totaled $114 million in 2018, compared with $103 million in 2017 and $98 million in 2016. The Company added $9 billion of residential real estate loans sub-serviced for others during 2018. During 2017, the Company added sub-servicing of residential real estate loans aggregating $35.6 billion of outstanding principal balances. On January 31, 2019, the Company purchased servicing rights for residential real estate loans that had outstanding principal balances at that date of approximately $13.3 billion. The purchase price of such servicing rights was approximately $146 million, subject to certain final adjustments. Transfer of the loans to the Company’s loan servicing system is expected to occur in the second quarter of 2019. 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 24 of Notes to Financial Statements.

Capitalized servicing rights consist largely of servicing associated with loans sold by the Company. Capitalized residential mortgage servicing assets totaled $121 million at December 31, 2018, compared with $115 million and $117 million at December 31, 2017 and 2016, respectively. Additional information about the Company’s capitalized residential mortgage servicing assets, including information about the calculation of estimated fair value, is presented in note 6 of Notes to Financial Statements.

Commercial mortgage banking revenues totaled $121 million in 2018, compared with $119 million in each of 2017 and 2016. Included in such amounts were revenues from loan origination and sales activities of $64 million in 2018, $66 million in 2017 and $76 million in 2016. The lower revenues in 2018 as compared with 2017 were due to narrower margins on loans originated for sale. The decline from 2016 to 2017 reflected lower loan origination volumes. Commercial real estate loans originated for sale to other investors totaled approximately $2.4 billion in 2018, compared with $2.5 billion in 2017 and $2.9 billion in 2016. Loan servicing revenues aggregated $57 million in 2018, $53 million in 2017 and $43 million in 2016. Capitalized commercial mortgage servicing assets were $115 million at December 31, 2018, $114 million at December 31, 2017 and $104 million at December 31, 2016. Commercial real estate loans serviced for other investors totaled $18.2 billion at December 31, 2018, $16.2 billion at December 31, 2017 and $11.8 billion at December 31, 2016, and included $3.4 billion at December 31, 2018, $3.3 billion at December 31, 2017 and $2.8 billion at December 31, 2016, of loan balances for which investors had recourse to the Company if such balances are ultimately uncollectible. Included in commercial real estate loans serviced for others were loans sub-serviced for others of $2.7 billion at December 31, 2018 and $2.6 billion at December 31, 2017. Commitments to sell commercial real estate loans and commitments to originate commercial real estate loans for sale aggregated $577 million and $229 million, respectively, at December 31, 2018, $217 million and $195 million, respectively, at December 31, 2017 and $713 million and $70 million, respectively, at December 31, 2016. Commercial real estate loans held for sale were $347 million, $22 million and $643 million at December 31, 2018, 2017 and 2016, respectively. The higher balances at December 31, 2018 and December 31, 2016 reflect loans originated later in the year that had not yet been delivered to investors.

Service charges on deposit accounts totaled $429 million in 2018, compared with $427 million in 2017 and $419 million in 2016. The increase in 2018 as compared with 2017 reflects higher consumer service charges while the increase in 2017 as compared with 2016 reflects higher consumer and commercial service charges of $5 million and $3 million, respectively.

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 $538 million in 2018, compared with $501 million in 2017 and $472 million in 2016. Revenues associated with the ICS business were $275 million in 2018, $254 million in 2017 and $230 million in 2016. The increase in ICS revenue in 2018 as compared with 2017 was predominantly due to higher sales activities and increased retirement services income resulting in growth in collective fund balances. The improved revenues associated with the ICS business in 2017 compared with 2016 reflect increased fees earned from money-market funds and stronger sales activities. Retirement services income also rose in 2017 as a result of higher revenues resulting from growth in collective funds balances. Revenues attributable to WAS totaled $237 million, $222 million and $212 million in 2018, 2017 and 2016, respectively. The increased revenues in each of the last two years as compared with the preceding year reflect stronger sales activities and improved equity market performance. Trust assets under management were $84.9 billion and $82.5 billion at December, 31 2018 and 2017, respectively. Trust assets under management include the Company's proprietary mutual funds' assets of $10.8 billion at December 31, 2018 and $11.2 billion at December 31, 2017. Additional trust income from investment management activities was $26 million, $25 million and $30 million in 2018, 2017 and 2016, respectively, and includes fees earned from retail customer investment accounts and from an affiliated investment manager. The decline in such revenues in 2017 as compared with 2016 reflects, in part, lower balances managed. Assets managed by the affiliated manager totaled $4.2 billion and $6.7 billion at December 31, 2018 and December 31, 2017, respectively. The Company's trust income from that affiliate was not material during 2018, 2017 or 2016.

Brokerage services income, which includes revenues from the sale of mutual funds and annuities and securities brokerage fees, declined to $51 million in 2018 from $61 million in 2017 and $63 million in 2016. The decline in brokerage services income from 2017 to 2018 was predominantly due to lower income from sales of annuities and mutual funds. Trading account and foreign exchange activity resulted in gains of $33 million in 2018, $35 million in 2017 and $41 million in 2016. Valuation losses on interest rate floor agreements in 2018 were largely offset by income associated with increased activity related to interest rate swap agreements executed on behalf of commercial customers. The lower level of such gains in 2017 as compared with 2016 resulted largely from reduced activity related to interest rate swap transactions executed on behalf of commercial customers. The Company enters into interest rate and foreign exchange contracts with customers who need such services and concomitantly enters into offsetting trading positions with third parties to minimize the risks involved with these types of transactions. 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 18 of Notes to Financial Statements and herein under the heading "Liquidity, Market Risk, and Interest Rate Sensitivity."

Net losses on investment securities totaled $6 million in 2018 and represented unrealized losses on investments in equity securities. The Company realized net gains from sales of investment securities of $21 million in 2017 and $30 million in 2016. Of the $21 million of net gains recognized during 2017, $18 million were associated with the sale of a portion of the Company's Fannie Mae and Freddie Mac preferred stock holdings. The preferred stock sold had an amortized cost basis (after previous other-than-temporary impairment write-downs) of approximately $3 million. During 2016, the Company sold all of its collateralized debt obligations that had been held in the available-for-sale investment securities portfolio and that had been obtained through the acquisition of other banks. In total, securities with an amortized cost of $28 million were sold. Divestiture of the majority of those securities would have been required in accordance with the provisions of the Volcker Rule.

Other revenues from operations aggregated $451 million in 2018, compared with $441 million in 2017 and $426 million in 2016. The increase in other revenues from operations in 2018 as compared with 2017 reflects income of $24 million from BLG, partially offset by lower income earned from bank owned life insurance. The increase from 2016 to 2017 reflects lower losses from BLG and higher merchant discount and credit card fees.

Included in other revenues from operations were the following significant components. Letter of credit and other credit-related fees totaled $125 million, $123 million and $120 million in 2018, 2017 and 2016, respectively. Revenues from merchant discount and credit card fees were $117 million in 2018, $120 million in 2017 and $111 million in 2016. As discussed in note 10 of Notes to Financial Statements, effective January 1, 2018 the Company began reporting credit card interchange revenue net of rewards granted to consumers who use the Company's credit cards. Those rewards totaled $14 million in 2018. If that change had not taken place, revenues from merchant discount and credit card fees would have aggregated $131 million in 2018, or 9% higher than in 2017 due to increased usage of the Company's credit card products. The higher revenues in 2017 as compared to 2016 were largely attributable to increased transaction volumes related to merchant activity and usage of the Company's credit card products. Tax-exempt income earned from bank owned life insurance, which includes increases in the cash surrender value of life insurance policies and benefits received, aggregated $48 million in 2018, compared with $58 million in 2017 and $54 million in 2016. The decrease from 2017 to 2018 was due to lower death benefit proceeds. Insurance-related sales commissions and other revenues totaled $47 million in 2018, compared with $43 million in each of 2017 and 2016. Automated teller machine usage fees aggregated $14 million in each of 2018 and 2016, compared with $15 million in 2017. Gains from sales of equipment previously leased to commercial customers were $7 million in 2018, $6 million in 2017 and $8 million in 2016.

M&T's investment in BLG resulted in income of $24 million in 2018 and less than $1 million in 2017, compared with losses of $11 million in 2016. During the second quarter of 2017, the operating losses of BLG resulted in M&T reducing the carrying value of its investment in BLG to zero. During that quarter and in 2018, M&T received cash distributions from BLG that resulted in the recognition of income by M&T. M&T expects cash distributions from BLG in the future, but the timing and amount of those distributions cannot be estimated. BLG is entitled to receive distributions from affiliates that provide asset management and other services that are available for distribution to BLG's owners, including M&T. The operating losses of BLG in 2016 reflect provisions for losses associated with securitized loans and other loans held by BLG and loan servicing and other administrative costs. Information about the Company's relationship with BLG and its affiliates is included in note 24 of Notes to Financial Statements.

Other Expense

Other expense aggregated $3.29 billion in 2018, compared to $3.14 billion in 2017 and $3.05 billion in 2016. Included in those amounts are expenses considered to be "nonoperating" in nature consisting of amortization of core deposit and other intangible assets of $25 million, $31 million and $43 million in 2018, 2017 and 2016, respectively, and merger-related expenses of $36 million in 2016. There were no merger-related expenses in 2017 or 2018. Exclusive of those nonoperating expenses, noninterest operating expenses aggregated $3.26 billion in 2018, $3.11 billion in 2017 and $2.97 billion in 2016. The most significant factors contributing to the increase in such expenses from 2017 to 2018 were a $135 million increase to the reserve for legal matters in 2018's initial quarter (compared with a $64 million increase to that reserve in 2017) and higher salaries and employee benefits and professional services expenses. Those factors were partially offset by lower FDIC assessments and charitable contributions. The rise in noninterest operating expenses in 2017 as compared with 2016 was largely attributable to higher legal-related and professional services expenses, increased salaries and employee benefit costs, and higher charitable contributions.

Salaries and employee benefits expense aggregated $1.75 billion in 2018, compared with $1.65 billion and $1.62 billion in 2017 and 2016, respectively. The higher level of expenses in 2018 reflects increased head count, the impact of merit and other increases for employees and higher incentive and stock-based compensation. The higher level of expenses in 2017 as compared to 2016 reflects the impact of annual merit increases and higher incentive-based compensation costs. Stock-based compensation totaled $66 million in 2018, compared with $61 million in 2017 and $65 million in 2016. The number of full-time equivalent employees were 16,938 and 16,456 at December 31, 2018 and 2017, respectively, compared with 16,593 at December 31, 2016.

The Company provides pension and other postretirement benefits (including a retirement savings plan) for its employees. Expenses related to such benefits totaled $85 million in 2018, $92 million in 2017 and $94 million in 2016. The amounts recorded in salaries and employee benefits expense and other costs of operations, respectively, from the preceding sentence were as follows: $92 million and ($7) million in 2018; $90 million and $2 million in 2017; $88 million and $6 million in 2016. The Company sponsors both defined benefit and defined contribution pension plans. Pension benefit expense for those plans was $45 million in 2018, $51 million in 2017 and $52 million in 2016. Included in those amounts were $29 million in 2018, $30 million in 2017 and $25 million in 2016 for a defined contribution pension plan that the Company began on January 1, 2006. The Company made $200 million of voluntary contributions to the qualified defined benefit pension plan in 2017. No contributions were required or made in 2018 or 2016. Information about the Company's pension plans, including significant assumptions utilized in completing actuarial calculations for the plans, is included in note 12 of Notes to Financial Statements.

The Company also provides a retirement savings plan ("RSP") that is a defined contribution plan in which eligible employees of the Company may defer up to 50% of qualified compensation via contributions to the plan. The Company makes an employer matching contribution in an amount equal to 75% of an employee's contribution, up to 4.5% of the employee's qualified compensation. RSP expense totaled $43 million in 2018, $38 million in 2017 and $37 million in 2016.

Excluding the nonoperating expense items already noted, nonpersonnel operating expenses were $1.51 billion in 2018, $1.46 billion in 2017 and $1.35 billion in 2016. The rise in such expenses in 2018 as compared with 2017 was predominantly the result of higher legal-related and professional services costs, partially offset by lower FDIC assessments and charitable contributions. The decline in FDIC assessments from 2017 to 2018 was due, in part, to the elimination of the large bank surcharge, effective October 1, 2018. The Deposit Insurance Fund Reserve Ratio exceeded the statutorily required minimum reserve ratio of 1.35% on September 30, 2018, resulting in the elimination of the surcharge. The increased operating expenses in 2017 as compared with 2016 were predominantly the result of higher legal-related and professional services costs and charitable contributions. As noted previously, during 2018 and 2017 WT Corp. reached agreements related to alleged conduct of that subsidiary prior to its acquisition by M&T that led to the Company adding $135 million and $50 million to its reserve for legal matters during 2018 and 2017, respectively. The Company made contributions to The M&T Charitable Foundation of $29 million, $50 million and $30 million in 2018, 2017 and 2016, respectively.

Income Taxes

The provision for income taxes was $590 million in 2018, $916 million in 2017 and $743 million in 2016. The effective tax rates were 23.5% in 2018, 39.4% in 2017 and 36.1% in 2016. The decrease in the effective rate in 2018 from the prior years primarily reflects the impact of the enactment of the Tax Act that was signed into law on December 22, 2017, reducing the corporate Federal income tax rate from 35% to 21% effective January 1, 2018 and making other changes to U.S. corporate income tax laws. If not for those changes, the Company estimates that its effective tax rate for 2018 would have been 35.7%. In December 2018, M&T received approval from the Internal Revenue Service to change its tax return treatment for certain loan fees retroactive to 2017, resulting in a $15 million reduction of income tax expense in the final quarter of 2018. The Company also adopted new accounting guidance for share-based transactions during the first quarter of 2017. That guidance requires that excess tax benefits and tax deficiencies associated with share-based compensation be recognized as a discrete component of income tax expense in the income statement. Previously, tax effects resulting from changes in M&T's share price subsequent to the grant date were recorded through shareholders' equity at the time of vesting or exercise. As a result, the Company recognized a reduction of income tax expense of $9 million and $22 million during 2018 and 2017, respectively. Furthermore, GAAP requires that the impact of the provisions of the Tax Act be accounted for in the period of enactment. Accordingly, the estimated incremental income tax expense recorded by the Company in the fourth quarter of 2017 related to the Tax Act was $85 million. That additional expense was largely attributable to the reduction in carrying value of net deferred tax assets reflecting lower future tax benefits resulting from the lower corporate tax rate. Lastly, the 2017 settlement between WT Corp. and the U.S. Attorney's Office for the District of Delaware resulted in a $44 million payment by WT Corp. that was not deductible for income tax purposes, contributing to a higher effective tax rate in 2017. If not for the impact of the Tax Act, the change in accounting for excess tax benefits from share-based compensation, and the non-deductible nature of the payment referred to above, the Company's effective tax rate in 2017 would have been 36.0%.

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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. Information about amounts accrued for uncertain tax positions and a reconciliation of income tax expense to the amount computed by applying the statutory federal income tax rate to pre-tax income is provided in note 13 of Notes to Financial Statements.

International Activities

Assets and revenues associated with international activities represent less than 1% of the Company's consolidated assets and revenues. International assets included $172 million and $159 million of loans to foreign borrowers at December 31, 2018 and 2017, respectively. Deposits in the Company's office in the Cayman Islands aggregated $812 million at December 31, 2018 and $178 million at December 31, 2017. The Company uses such deposits to facilitate customer demand which increased in 2018 largely due to the higher interest rate environment. Loans at M&T Bank's commercial banking office in Ontario, Canada included in international assets as of December 31, 2018 and 2017 totaled $122 million and $114 million, respectively. Deposits at that office were $22 million at December 31, 2018 and $45 million at December 31, 2017. The Company also offers trust-related services in Europe. Revenues from providing such services during 2018, 2017 and 2016 were approximately $29 million, $24 million and $25 million, respectively.

Liquidity, Market Risk, and Interest Rate Sensitivity

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 core 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. Core deposits financed 78% of the Company's earning assets at December 31, 2018, compared with 84% at December 31, 2017 and 83% at December 31, 2016.

The Company supplements funding provided through core deposits with various short-term and long-term wholesale borrowings, including overnight federal funds purchased, short-term advances from the FHLB of New York, brokered deposits, Cayman Islands office deposits and longer-term borrowings. At December 31, 2018, M&T Bank had short-term and long-term credit facilities with the FHLBs aggregating $18.8 billion. Outstanding borrowings under FHLB credit facilities totaled $4.8 billion and $577 million at December 31, 2018 and 2017, respectively. Such borrowings were secured by loans and investment securities. As previously noted, in December 2018 the Company borrowed $4.2 billion from the FHLB of New York for LCR and other liquidity purposes. M&T Bank had an available line of credit with the Federal Reserve Bank of New York that totaled approximately $13.7 billion at

December 31, 2018. The amount of that line is dependent upon the balances of loans and securities pledged as collateral. There were no borrowings outstanding under such line of credit at December 31, 2018 or December 31, 2017. Senior notes issued and outstanding totaled $5.5 billion at December 31, 2018 and $5.0 billion at December 31, 2017. During 2018 M&T Bank issued $1.0 billion of senior notes that mature in 2021 and M&T issued $750 million of senior notes that mature in 2023. On December 31, 2018 M&T Bank redeemed $750 million of senior notes that were due to mature in January 2019.

The Company has, from time to time, issued subordinated capital notes and junior subordinated debentures associated with trust preferred securities to provide liquidity and enhance regulatory capital ratios. Pursuant to the Dodd-Frank Act, the Company's junior subordinated debentures associated with trust preferred securities have been phased-out of the definition of Tier 1 capital but, similar to other subordinated capital notes, are considered Tier 2 capital and are includable in total regulatory capital. Information about the Company's borrowings is included in note 8 of Notes to Financial Statements.

Short-term federal funds borrowings totaled $137 million and $125 million at December 31, 2018 and 2017, respectively. In general, those borrowings were unsecured and matured on the next business day. In addition to satisfying customer demand, Cayman Islands office deposits may be used by the Company as an alternative to short-term borrowings. Cayman Islands office deposits totaled $812 million and $178 million at December 31, 2018 and 2017, respectively. The Company has also benefited from the placement of brokered deposits. The Company has brokered savings and interest-bearing checking deposit accounts that aggregated $3.0 billion and $1.3 billion at December 31, 2018 and 2017, respectively. Brokered time deposits were not a significant source of funding as of those dates.

The Company's ability to obtain funding from these other 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 short-term 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. Information about the credit ratings of M&T and M&T Bank is presented in table 15. Additional information regarding the terms and maturities of all of the Company's short-term and long-term borrowings is provided in note 8 of Notes to Financial Statements. 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.

Table 15

DEBT RATINGS

	Moody's	Standard and Poor's	Fitch
M&T Bank Corporation			
Senior debt	A3	A–	A
Subordinated debt	A3	BBB+	A–
M&T Bank			
Short-term deposits	Prime-1	A-1	F1
Long-term deposits	Aa3	A	A+

Senior debt	A3	A	A
Subordinated debt	A3	A–	A–

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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 December 31, 2018 or December 31, 2017. The total amount of VRDBs outstanding backed by M&T Bank letters of credit was $793 million and $1.0 billion at December 31, 2018 and 2017, respectively. M&T Bank also serves as remarketing agent for most of those bonds.

Table 16

MATURITY DISTRIBUTION OF SELECTED LOANS(a)

December 31, 2018	Demand	2019	2020 - 2023	After 2023
	(In thousands)			
Commercial, financial, etc.	$7,426,143	$3,388,513	$9,329,335	$1,390,006
Real estate — construction	45,770	3,921,560	4,211,154	617,721
Total	$7,471,913	$7,310,073	$13,540,489	$2,007,727
Floating or adjustable interest rates			$11,705,686	$1,210,385
Fixed or predetermined interest rates			1,834,803	797,342
Total			$13,540,489	$2,007,727

(a) The data do not include nonaccrual loans.

The Company enters into contractual obligations in the normal course of business that require future cash payments. The contractual amounts and timing of those payments as of December 31, 2018 are summarized in table 17. 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 21 of Notes to Financial Statements. Table 17 summarizes the Company's other commitments as of December 31, 2018 and the timing of the expiration of such commitments.

Table 17

CONTRACTUAL OBLIGATIONS AND OTHER COMMITMENTS

December 31, 2018	Less Than One Year	One to Three Years	Three to Five Years	Over Five Years	Total
	(In thousands)				
Payments due for contractual obligations					
Time deposits	$3,667,839	$2,328,549	$123,719	$4,147	$6,124,254
Deposits at Cayman Islands office	811,906	—	—	—	811,906
Short-term borrowings	4,398,378	—	—	—	4,398,378
Long-term borrowings	1,525,057	3,517,246	1,647,441	1,755,170	8,444,914
Operating leases	89,547	150,521	94,082	104,280	438,430
Other	149,292	126,771	34,249	31,656	341,968
Total	$10,642,019	$6,123,087	$1,899,491	$1,895,253	$20,559,850
Other commitments					
Commitments to extend credit (a)	$10,828,529	$6,495,649	$6,475,039	$4,299,468	$28,098,685
Standby letters of credit	1,394,255	524,165	304,782	103,789	2,326,991
Commercial letters of credit	6,892	48,492	338	86	55,808
Financial guarantees and indemnification contracts	167,823	299,325	418,994	2,642,994	3,529,136
Commitments to sell real estate loans	929,424	11,268	—	—	940,692
Total	$13,326,923	$7,378,899	$7,199,153	$7,046,337	$34,951,312

(a) Amounts exclude discretionary funding commitments to commercial customers of $8.6 billion that the Company has the unconditional right to cancel prior to funding.

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 banking subsidiaries, which are subject to various regulatory limitations. Dividends from any banking subsidiary to M&T are limited by the amount of earnings of the banking subsidiary in the current year and the two preceding years. For purposes of that test, at December 31, 2018 approximately $669 million was available for payment of dividends to M&T from banking subsidiaries. Information regarding the long-term debt obligations of M&T is included in note 8 of Notes to Financial Statements.

Table 18

MATURITY AND TAXABLE-EQUIVALENT YIELD OF INVESTMENT SECURITIES

December 31, 2018	One Year or Less	One to Five Years	Five to Ten Years	Over Ten Years	Total
	(Dollars in thousands)				
Investment securities available for sale(a)					
U.S. Treasury and federal agencies					
Carrying value	$1,332,656	$4,275	$—	$—	$1,336,931
Yield	1.11 %	1.54 %	—	—	1.11 %
Obligations of states and political subdivisions					
Carrying value	533	497	629	—	1,659
Yield	6.37 %	4.53 %	4.85 %	—	5.24 %
Mortgage-backed securities(b)					
Government issued or guaranteed					
Carrying value	476,668	2,050,866	2,636,481	2,052,976	7,216,991
Yield	2.46 %	2.46 %	2.46 %	2.43 %	2.45 %
Privately issued					
Carrying value	6	1	2	13	22
Yield	3.49 %	5.00 %	5.00 %	5.00 %	4.51 %
Other debt securities					
Carrying value	1,506	4,547	95,024	25,829	126,906
Yield	3.18 %	2.81 %	4.16 %	4.95 %	4.28 %
Total investment securities available for sale					
Carrying value	1,811,369	2,060,186	2,732,136	2,078,818	8,682,509
Yield	1.47 %	2.46 %	2.52 %	2.47 %	2.28 %
Investment securities held to maturity					
U.S. Treasury and federal agencies					
Carrying value	446,542	—	—	—	446,542
Yield	2.51 %	—	—	—	2.51 %
Obligations of states and political subdivisions					
Carrying value	2,926	4,568	—	—	7,494
Yield	4.26 %	4.66 %	—	—	4.51 %
Mortgage-backed securities(b)					
Government issued or guaranteed					
Carrying value	123,243	534,826	670,864	1,416,843	2,745,776
Yield	2.77 %	2.77 %	2.77 %	2.76 %	2.76 %
Privately issued					
Carrying value	4,875	20,036	26,554	61,695	113,160
Yield	2.77 %	2.77 %	2.77 %	2.77 %	2.77 %
Other debt securities					

Carrying value	—	—	—	3,668	3,668
Yield	—	—	—	5.86 %	5.86 %
Total investment securities held to maturity					
Carrying value	577,586	559,430	697,418	1,482,206	3,316,640
Yield	2.57 %	2.78 %	2.77 %	2.77 %	2.74 %
Equity and other securities					
Equity securities					
Carrying Value					93,917
Yield					1.57 %
Other investment securities					
Carrying Value					599,747
Yield					3.73 %
Total investment securities					
Carrying value	$2,388,955	$2,619,616	$3,429,554	$3,561,024	$12,692,813
Yield	1.73 %	2.53 %	2.57 %	2.59 %	2.60 %

(a) Investment securities available for sale are presented at estimated fair value. Yields on such securities are based on amortized cost.

(b) Maturities are reflected based upon contractual payments due. Actual maturities are expected to be significantly shorter as a result of loan repayments in the underlying mortgage pools.

Table 19

MATURITY OF DOMESTIC CERTIFICATES OF DEPOSIT AND TIME DEPOSITS

WITH BALANCES OF $100,000 OR MORE

	December 31, 2018 (In thousands)
Under 3 months	$ 517,362
3 to 6 months	565,560
6 to 12 months	452,965
Over 12 months	1,167,761
Total	$ 2,703,648

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 hedge 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 December 31, 2018, the aggregate notional amount of interest rate swap agreements entered into for interest rate risk management purposes that were currently in effect was $7.3 billion. In addition, the Company has entered into $12.6 billion of forward-starting interest rate swap agreements that will become effective as pre-existing swap agreements mature. Information about interest rate swap agreements entered into for interest rate risk management purposes is included herein under the heading "Net Interest Income/Lending and Funding Activities" and in note 18 of Notes to Financial Statements.

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

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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.

Table 20 displays as of December 31, 2018 and 2017 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.

Table 20

SENSITIVITY OF NET INTEREST INCOME TO CHANGES IN INTEREST RATES

	Calculated Increase (Decrease) in Projected Net Interest Income in December 31	
Changes in interest rates	2018	2017
	(In thousands)	
+200 basis points	$37,513	81,570
+100 basis points	36,727	64,434
-100 basis points	(114,307)	(94,014)

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. As noted herein, the Company has used interest rate swap agreements designated as hedging instruments to mitigate the Company’s exposure to such potential volatility. 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.

Table 21 presents cumulative totals of net assets (liabilities) repricing on a contractual basis within the specified time frames, as adjusted for the impact of interest rate swap agreements entered into for interest rate risk management purposes. Management believes that this measure does not appropriately depict interest rate risk since changes in interest rates do not necessarily affect all categories of earning assets and interest-bearing liabilities equally nor, as assumed in the table, on the contractual maturity or repricing date. Furthermore, this static presentation of interest rate risk fails to consider the effect of ongoing lending and deposit gathering activities, projected changes in balance sheet composition or any subsequent interest rate risk management activities the Company is likely to implement.

Table 21

CONTRACTUAL REPRICING DATA

December 31, 2018	Three Months or Less	Four to Twelve Months	One to Five Years	After Five Years	Total
	(Dollars in thousands)				
Loans and leases, net	$52,645,822	$ 5,562,898	$15,877,783	$14,379,974	$88,466,477
Investment securities	531,289	1,749,368	136,832	10,275,324	12,692,813
Other earning assets	8,160,767	778	—	—	8,161,545
Total earning assets	61,337,878	7,313,044	16,014,615	24,655,298	109,320,835
Savings and interest-checking deposits	50,963,744	—	—	—	50,963,744
Time deposits	1,290,803	2,377,036	2,452,268	4,147	6,124,254
Deposits at Cayman Islands office	811,906	—	—	—	811,906
Total interest-bearing deposits	53,066,453	2,377,036	2,452,268	4,147	57,899,904
Short-term borrowings	4,398,378	—	—	—	4,398,378
Long-term borrowings	2,230,859	1,524,843	3,406,186	1,283,026	8,444,914
Total interest-bearing liabilities	59,695,690	3,901,879	5,858,454	1,287,173	70,743,196
Interest rate swap agreements	(9,300,000)	650,000	8,150,000	500,000	—
Periodic gap	$(7,657,812)	$ 4,061,165	$18,306,161	$23,868,125	
Cumulative gap	(7,657,812)	(3,596,647)	14,709,514	38,577,639	
Cumulative gap as a % of total earning assets	(7.0)%	(3.3)%	13.5 %	35.3 %	

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 20 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 18 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 $42.9 billion at December 31, 2018 and $29.9 billion at December 31, 2017. The increase in such notional amounts at December 31, 2018 as compared with the 2017 year end was predominantly due to the additional $9.3 billion of interest rate floor agreements as previously noted. The notional amounts of foreign currency and other option and futures contracts entered into for trading account purposes were $763 million and $530 million at December 31, 2018 and 2017, respectively. 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 were $186 million and $178 million, respectively, at December 31, 2018 and $133 million and $137 million, respectively, at December 31, 2017. The fair value asset and liability amounts at December 31, 2018 have been reduced by contractual settlements of $171 million and $50 million, respectively, and at December 31, 2017 by contractual settlements of $136 million and $12 million, respectively. Included in trading account assets at December 31, 2018 and 2017 were $21 million and $23 million, respectively, of assets related to deferred compensation plans. 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 December 31, 2018 and 2017 were $25 million and $27 million, respectively, of liabilities related to deferred compensation plans. 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 $25 million and $24 million at December 31, 2018 and December 31, 2017, respectively.

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 18 of Notes to Financial Statements.

Capital

Shareholders’ equity was $15.5 billion at December 31, 2018 and represented 12.87% of total assets, compared with $16.3 billion or 13.70% at December 31, 2017 and $16.5 billion or 13.35% at December 31, 2016.

Included in shareholders’ equity was preferred stock with financial statement carrying values of $1.2 billion at each of December 31, 2018 and 2017. Further information concerning M&T’s preferred stock can be found in note 9 of Notes to Financial Statements.

Reflecting the impact of repurchases of M&T’s common stock, common shareholders’ equity was $14.2 billion, or $102.69 per share, at December 31, 2018, compared with $15.0 billion, or $100.03 per share, at December 31, 2017 and $15.3 billion, or $97.64 per share, at December 31, 2016. Tangible equity per common share, which excludes goodwill and core deposit and other intangible assets and applicable deferred tax balances, was $69.28 at December 31, 2018, compared with $69.08 and $67.85 at December 31, 2017 and 2016, respectively. The Company’s ratio of tangible common equity to tangible assets was 8.31% at December 31, 2018, compared with 9.10% and 8.92% at December 31, 2017 and 2016, respectively. Reconciliations of total common shareholders’ equity and tangible common equity and total assets and tangible assets as of December 31, 2018, 2017 and 2016 are presented in table 2. During 2018, 2017 and 2016, the ratio of average total shareholders’ equity to average total assets was 13.36%, 13.48% and 13.21%, respectively. The ratio of average common shareholders’ equity to average total assets was 12.31%, 12.46% and 12.16% in 2018, 2017 and 2016, respectively.

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 losses on investment securities reflected in shareholders’ equity, net of applicable tax effect, were $148 million, or $1.06 per common share, at December 31, 2018, $44 million, or $.29 per common share, at December 31, 2017 and $16 million, or $.10 per common share, at December 31, 2016. 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 December 31, 2018 and 2017 is included in note 2 of Notes to Financial Statements.

Reflected in the carrying amount of available-for-sale investment securities at December 31, 2018 were pre-tax effect unrealized gains of $17 million on securities with an amortized cost of $1.2 billion and pre-tax effect unrealized losses of $204 million on securities with an amortized cost of $7.7 billion. Information concerning the Company’s fair valuations of investment securities is provided in note 20 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 December 31, 2018, 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 additional other-than-temporary impairment charges were not appropriate. At December 31, 2018, 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. Additional information concerning fair value measurements and the Company's approach to the classification of such measurements is included in note 20 of Notes to Financial Statements.

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 December 31, 2018 and 2017, the Company had in its held-to-maturity portfolio privately issued mortgage-backed securities with an amortized cost basis of $113 million and $136 million, respectively, and a fair value of $103 million and $111 million, respectively. At December 31, 2018, 82% of the mortgage-backed securities were in the most senior tranche of the securitization structure with 17% 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 December 31, 2018, 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 69%, respectively. Given the terms of 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 December 31, 2018 those privately issued mortgage-backed securities were not other-than-temporarily impaired. Nevertheless, it is possible that adverse changes in the 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 $261 million, or $1.89 per common share, at December 31, 2018, $305 million, or $2.03 per common share, at December 31, 2017 and $273 million, or $1.75 per common share, at December 31, 2016. Information about the funded status of the Company's pension and other postretirement benefit plans is included in note 12 of Notes to Financial Statements.

As described herein under the heading "Overview," M&T announced on June 28, 2018 that the Federal Reserve did not object to M&T's revised 2018 Capital Plan, which included the repurchase of up to $1.8 billion of common shares during the four-quarter period starting on July 1, 2018 and an increase in the quarterly common stock dividend in the third quarter of 2018 of up to $.20 per share to $1.00 per share. In addition, on February 5, 2018, M&T received notice of non-objection from the Federal Reserve to repurchase an additional $745 million of shares of its common stock by June 30, 2018. That amount was in addition to the $900 million of common stock authorized for repurchase, which was filed with the Federal Reserve in the 2017 Capital Plan. In the aggregate, during 2018 M&T repurchased 12,295,817 common shares for $2.2 billion. The remaining amount of authorized common share repurchases pursuant to the revised 2018 Capital Plan at December 31, 2018 totaled $802 million and it is expected that those repurchases will be made during the first two quarters of 2019. During 2017, M&T repurchased 7,369,105 common shares for $1.2 billion. In 2016, M&T repurchased 5,607,595 common shares for $641 million.

During 2018, in accordance with the 2018 and 2017 Capital Plans, 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 $511 million in 2018, compared with $457 million and $442 million in 2017 and 2016, respectively. Dividends per common share totaled $3.55 in 2018, compared with $3.00 and $2.80 in 2017 and 2016, respectively. Dividends of $73 million in each of 2018 and 2017 and $81 million in 2016 were declared on preferred stock in accordance with the terms of each series. The decline in preferred stock dividends in 2017 from the immediately preceding year resulted from the lower dividend rate for the $500 million of Series F preferred stock issued in October 2016 as compared with the like-amount of Series D preferred stock that had been redeemed in December 2016.

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 provide for the phase-in of a "capital conservation buffer" composed entirely of CET1 on top of these minimum risk-weighted asset ratios. When fully phased-in on January 1, 2019 the capital conservation buffer is 2.5%. For 2018, the phase-in transition portion of that buffer was 1.875%. The regulatory capital amounts and ratios of M&T and its bank subsidiaries as of December 31, 2018 are presented in note 23 of Notes to Financial Statements. A detailed discussion of the regulatory capital rules is included in Part I, Item 1 of this Form 10-K under the heading "Capital Requirements."

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 federal 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 this Form 10-K.

Fourth Quarter Results

Net income in the fourth quarter of 2018 was $546 million, compared with $322 million in the year-earlier quarter. Diluted and basic earnings per common share were each $3.76 in the final three months of 2018, compared with diluted and basic earnings per common share of $2.01 in the corresponding 2017 period. The annualized rates of return on average assets and average common shareholders' equity for the fourth quarter of 2018 were 1.84% and 14.80%, respectively, compared with 1.06% and 8.03%, respectively, in the year-earlier quarter.

Net operating income during 2018's final quarter was $550 million, compared with $327 million in the fourth quarter of 2017. Diluted net operating earnings per common share were $3.79 and $2.04 in the fourth quarters of 2018 and 2017, respectively. The annualized net operating returns on average tangible assets and average tangible common equity in the final three months of 2018 were 1.93% and 22.16%, respectively, compared with 1.12% and 11.77%, respectively, in the corresponding 2017 period. Reconciliations of GAAP results with non-GAAP results for the quarterly periods of 2018 and 2017 are provided in table 23.

Taxable-equivalent net interest income totaled $1.06 billion in the final three months of 2018, up 9% from $980 million recorded in the year-earlier period. That growth was predominantly attributable to a 36 basis point widening of the net interest margin to 3.92% in the fourth quarter of 2018 from 3.56% in the year-earlier quarter. Partially offsetting the favorable impact of the higher margin was a 1% decline in average earning assets, from $109.4 billion in 2017 to $107.8 billion in 2018. That decline was predominantly reflective of payments received during 2018 on investment securities that lowered the average balance of such securities by $1.8 billion to $13.0 billion in the recent quarter from $14.8 billion in 2017's final quarter. Average balances of commercial loans and leases were $22.4 billion in the recent quarter, up $814 million or 4% from $21.6 billion in the fourth quarter of 2017 due, in part, to higher balances of automobile floor plan loans. Average commercial real estate loan balances totaled $33.6 billion in the last quarter of 2018, up $448 million or 1% from $33.1 billion in the year-earlier quarter. Included in those totals were average balances of loans held for sale of $252 million in the final 2018 quarter, compared with $259 million in the year-earlier period. Average residential real estate loan balances declined $2.6 billion to $17.4 billion in 2018's final quarter from $20.0 billion in the year-earlier quarter, reflecting ongoing repayments of loans obtained in the acquisition of Hudson City. Included in the residential real estate loan portfolio were loans held for sale that averaged $229 million and $372 million in the fourth quarters of 2018 and 2017, respectively. Consumer loans averaged $13.9 billion in the final three months of 2018, $754 million or 6% higher than in the similar 2017 quarter. That increase resulted from higher average balances of automobile and recreational finance loans. Total loans and leases at December 31, 2018 rose $477 million to $88.5 billion from $88.0 billion at December 31, 2017. Higher commercial loans, commercial real estate loans and consumer loans were partially offset by lower residential real estate loans, reflecting ongoing repayments of loans obtained in the Hudson City acquisition. The net interest spread widened in the fourth quarter of 2018 to 3.57%, up 23 basis points from 3.34% in the similar quarter of 2017. The yield on earning assets in the final three months of 2018 was 4.51%, up 58 basis points from the year-earlier quarter. That rise reflects the impact of increases in short-term interest rates initiated by the Federal Reserve in 2017 and 2018 that contributed to higher yields on loans and leases. The rate paid on interest-bearing liabilities in the 2018's final quarter was .94%, up 35 basis points from .59% in the corresponding 2017 quarter. That increase was also largely due to the higher interest rate environment. The contribution of net interest-free funds to the Company's net interest margin was .35% and .22% in the fourth quarters of 2018 and 2017, respectively. As a result, the Company's net interest margin expanded to 3.92% in the fourth quarter of 2018 from 3.56% in the year-earlier period.

The provision for credit losses was $38 million for the three months ended December 31, 2018, compared with $31 million in the corresponding 2017 period. Net loan charge-offs were $38 million in the final quarter of 2018, representing an annualized .17% of average loans and leases outstanding, compared with $27 million or .12% during the fourth quarter of 2017. Net charge-offs in the fourth quarters of 2018 and 2017 included: net charge-offs of residential real estate loans of $2 million in each quarter; net recoveries of previously charged-off commercial real estate loans of less than one million dollars in 2018, compared with net recoveries of $4 million in 2017; net charge-offs of commercial loans of $10 million in 2018 and $5 million in 2017; and net charge-offs of consumer loans of $27 million and $25 million in 2018 and 2017, respectively. The net recoveries of commercial real estate loans in 2017's final quarter reflected $4 million of recoveries on a previously charged-off loan to a residential builder and developer.

Other income aggregated $481 million in the fourth quarter of 2018, compared with $484 million in the similar 2017 period. That decrease predominantly resulted from lower gains on bank investment securities, largely offset by higher trading account and foreign exchange gains and trust income. During 2017's final quarter, an $18 million gain was realized on the sale of a portion of the Company's Fannie Mae and Freddie Mac preferred stock holdings. The increased trading accounts and foreign exchange gains resulted predominantly from increased activity related to interest rate swap agreements executed on behalf of commercial customers. The higher trust income was largely due to increased revenues from the ICS businesses.

Other expense totaled $802 million during the recent quarter, compared with $796 million in the final quarter of 2017. Included in such amounts are expenses considered to be "nonoperating" in nature consisting of amortization of core deposit and other intangible assets of $5 million and $7 million during the quarters ended December 31, 2018 and 2017, respectively. Exclusive of those nonoperating expenses, noninterest operating expenses were $797 million in the fourth quarter of 2018 and $789 million in the corresponding 2017 quarter. Higher salaries and employee benefits expenses in the recent quarter were largely offset by lower contributions to The M&T Charitable Foundation and lower FDIC assessments as compared with the fourth quarter of 2017. The Company's efficiency ratio during the fourth quarters of 2018 and 2017 was 51.7% and 54.7%, respectively. Table 23 includes a reconciliation of other expense to noninterest operating expense and the calculation of the efficiency ratio for each of the quarters of 2018 and 2017.

The Company's lower effective tax rate in 2018 reflects the impact of the Tax Act, which lowered the Federal corporate income tax rate to 21% in 2018 from 35% in 2017. Additional items impacting the effective tax rates in the fourth quarters of 2018 and 2017 are described herein under the heading "Income Taxes."

Segment Information

In accordance with GAAP, the Company's reportable segments have been determined based upon its 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. 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, reported segments and the financial information of the reported segments are 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. Financial information about the Company's segments is presented in note 22 of Notes to Financial Statements. Each reportable segment benefited from a lower corporate Federal income tax rate in 2018 due to the enactment of the Tax Act, as compared with prior years.

The Business Banking segment provides a wide range of services to small businesses and professionals within markets served by the Company through the Company's branch network, business banking centers and other delivery channels such as telephone banking, Internet banking and automated teller machines. Services and products offered by this segment include various business loans and leases, including loans guaranteed by the Small Business Administration, business credit cards, deposit products, and financial services such as cash management, payroll and direct deposit, merchant credit card and letters of credit. The Business Banking segment recorded net income of $168 million in 2018, compared with $116 million in 2017. That 45% rise in net income resulted from a $41 million increase in net interest income, a $5 million decrease in the provision for credit losses, due to lower net charge-offs, and the lower income tax rate in 2018. The growth in net interest income reflected a widening of the net interest margin on deposits of 42 basis points, offset, in part, by a 14 basis point narrowing of the net interest margin on loans. Those favorable factors were partially offset by a $5 million increase in centrally-allocated costs, largely associated with data processing, risk management and other support services provided to the Business Banking segment. The Business Banking segment contributed net income of $104 million in 2016. The 12% rise in net income from 2016 to 2017 resulted from a $22 million increase in net interest income, reflecting a widening of the net interest margin, and higher merchant discount and credit card fees.

The Commercial Banking segment provides a wide range of credit products and banking services for middle-market and large commercial customers, mainly within the markets served by the Company. Services provided by this segment include commercial lending and leasing, letters of credit, deposit products, and cash management services. The Commercial Banking segment contributed net income of $539 million in 2018, compared with $437 million in 2017. The improvement in net income from 2017 was predominantly driven by the lower income tax rate in 2018, a $13 million increase in net interest income, lower FDIC assessments of $8 million, and a $5 million increase in merchant discount and credit card fees. The increased net interest income reflected a 59 basis point expansion of the net interest margin on deposits, partially offset by a seven basis point narrowing of the net interest margin on loans and lower average deposit balances of $2.2 billion. Offsetting the favorable factors noted above were a $25 million increase in centrally-allocated costs, largely associated with data processing, risk management and other support services provided to the Commercial Banking segment, and higher personnel-related costs of $5 million. Net income for the Commercial Banking segment totaled $411 million in 2016. The 6% improvement as compared with 2016 resulted from a $24 million increase in net interest income and a lower provision for credit losses of $23 million. Those favorable factors were partially offset by higher allocated operating expenses associated with data processing, risk management and other support services provided to the Commercial Banking segment. The increase in net interest income resulted from a widening of the net interest margin on deposits of 32 basis points and higher average outstanding loan balances of $961 million offset, in part, by a narrowing of the net interest margin on loans of 15 basis points.

The Commercial Real Estate segment provides credit and deposit services to its customers. Real estate securing loans in this segment is generally located in New York State, Maryland, New Jersey, Pennsylvania, Delaware, Connecticut, Virginia, West Virginia, the District of Columbia and the western portion of the United States. Commercial real estate loans may be secured by apartment/multifamily buildings; office, retail and industrial space; or other types of collateral.

Activities of this segment also include the origination, sales, and servicing of commercial real estate loans through the Fannie Mae DUS program and other programs. Commercial real estate loans held for sale are included in this segment. Net income of the Commercial Real Estate segment aggregated $453 million in 2018, up 24% from $364 million in 2017. That improvement resulted from: the lower income tax rate in 2018, a rise in net interest income of $16 million; lower FDIC assessments of $11 million; higher mortgage banking revenues of $5 million, resulting from increased servicing income; and higher trading account and foreign exchange gains of $5 million, largely due to increased activity related to interest rate swap transactions executed on behalf of commercial customers. Those favorable factors were partially offset by an $11 million rise in the provision for credit losses, mainly due to higher recoveries of previously charged-off loans in 2017, and $10 million increases in each of salaries and employee benefits and allocated operating expenses associated with data processing, risk management and other support services provided to the Commercial Real Estate segment. The higher net interest income was largely attributable to a 52 basis point widening of the net interest margin on deposits, offset, in part, by a four basis point narrowing of the net interest margin on loans. Net income for this segment was $350 million in 2016. The 4% increase in net income from 2016 to 2017 resulted from higher net interest income of $41 million and a lower provision for credit losses of $4 million, offset in part, by lower trading account and foreign exchange gains of $11 million, largely due to decreased volumes of interest rate swap transactions executed on behalf of commercial customers, and higher operating expenses. The increase in net interest income was attributable to a $1.5 billion increase in average loan balances and a 38 basis point widening of the net interest margin on deposits, offset, in part, by a seven basis point narrowing of the net interest margin on loans.

The Discretionary Portfolio segment includes investment and trading account securities, residential real estate loans and other assets, short-term and long-term borrowed funds, brokered deposits and Cayman Islands office deposits. This segment also provides foreign exchange services to customers. The Discretionary Portfolio segment recorded net income of $116 million in 2018 and $135 million in 2017. That 14% decline in net income reflected: a $49 million decrease in net interest income; lower gains on investment securities of $24 million, reflecting valuation losses on marketable equity securities of $6 million during 2018, compared with realized gains of $18 million in 2017 on the sale of investment securities; and a $7 million decrease in income from bank owned life insurance. The lower net interest income reflected a narrowing of the net interest margin on loans of five basis points and lower average loan balances of $2.6 billion, reflecting ongoing repayments of loans obtained in the acquisition of Hudson City. Favorable factors offsetting the declines noted included: the lower income tax rate in 2018; a $24 million decline 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 that reflect lower loan balances and net charge-offs; lower FDIC assessments of $6 million; and a decrease in other real estate-related servicing costs. Net income of the Discretionary Portfolio segment aggregated $164 million in 2016. The 17% decline in net income from 2016 was due to a $69 million decrease in net interest income, reflecting a $3.5 billion decrease in average loan balances and a 10 basis point narrowing of the net interest margin on loans, and lower gains realized on investment securities. The decline in average loan balances resulted from ongoing repayments of loans obtained in the Hudson City acquisition. Those unfavorable factors were partially offset by lower loan and other real estate-related servicing costs.

The Residential Mortgage Banking segment originates and services residential mortgage loans and sells substantially all of those loans in the secondary market to investors or to the Discretionary Portfolio segment. In addition to the geographic regions served by or contiguous with the Company's branch network, the Company maintains mortgage loan origination offices in several states throughout the western United States. The Company periodically purchases the rights to service loans and also sub-services residential real estate loans for others. Residential real estate loans held for sale are included in this segment. The Residential Mortgage Banking segment's net income totaled $45 million in 2018, compared with $46 million in 2017. That slight decline resulted from an $18 million decrease in revenues associated with mortgage origination and sales activities (including intersegment revenues) and lower net interest income of $16 million, reflecting a narrowing of the net interest margin on loans of 48 basis points and lower average deposit balances. Offsetting those unfavorable factors were lower servicing-related costs (including intersegment costs) of $14 million and the lower income tax rate in 2018. The Residential Mortgage Banking segment's net income was $55 million in 2016. The 18% decline in 2017 as compared with 2016 reflected lower revenues from mortgage origination and sales activities of $14 million and from servicing residential real estate loans of $6 million (each including intersegment revenues). Partially offsetting those unfavorable factors were lower expenses associated with intersegment loan servicing.

The Retail Banking segment offers a variety of services to consumers through several delivery channels which include branch offices, automated teller machines, telephone banking and Internet banking. The Company has branch offices in New York State, Maryland, New Jersey, Pennsylvania, Delaware, Connecticut, Virginia, West Virginia and the District of Columbia. Credit services offered by this segment include consumer installment loans, automobile and recreational finance loans (originated both directly and indirectly through dealers), home equity loans and lines of credit, and credit cards. The segment also offers to its customers deposit products, including demand, savings and time accounts; investment products, including mutual funds and annuities; and other services. Net income for the Retail Banking segment was $541 million in 2018, up 44% from $377 million in 2017. That year-over-year increase was predominantly attributable to a $141 million rise in net interest income that reflected a 49 basis point widening of the net interest margin on deposits, partially offset by lower average deposit balances of $2.8 billion, and the lower income tax rate in 2018. Those favorable factors were offset, in part, by a $28 million increase in centrally-allocated costs associated with data processing, risk management and other support services provided to the Retail Banking Segment. This segment's net income increased 28% in 2017 from $294 million in 2016. That improvement was predominantly due to an increase in net interest income of $103 million, a $13 million decrease in the provision for credit losses and lower personnel-related expenses of $7 million. The higher net interest income was primarily due to a widening of the net interest margin on deposits of 34 basis points offset, in part, by lower average outstanding deposit balances of $3.4 billion reflecting net maturities of time deposits obtained in the Hudson City acquisition.

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 income or loss from 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 net income of $55 million in 2018, compared with net losses of $66 million and $64 million in 2017 and 2016, respectively. The significant improvement in 2018 as compared with 2017 was driven by the favorable impact from the Company's allocation methodologies for income taxes and for internal transfers for funding charges and credits associated with earning assets and interest-bearing liabilities of the Company's reportable segments; higher trust income of $36 million; $24 million of income from BLG in 2018; and lower charitable contributions of $21 million in the recent year. Those favorable factors were partially offset by a higher expenses related to the settlements of WT Corp pre-acquisition legal-related matters; a $21 million increase in professional and other outside services expenses; and a $10 million decline in brokerage services income. The modestly higher net loss in 2017 as compared with 2016 reflected the incremental income tax expense of $85 million recorded as a result of the enactment of the Tax Act, higher legal-related and professional services costs of $95 million, including additions to the reserve for legal matters, and an increase in personnel-related expenses. Partially offsetting those unfavorable factors were: lower merger-related expenses of $36 million (there were no such expenses in 2017); higher trust income of $29 million in 2017; tax benefits of $22 million recognized in 2017 associated with the adoption of new accounting guidance requiring that excess tax benefits associated with share-based compensation be recognized in income tax expense in the income statement; and the favorable impact from the Company's allocation methodologies.

Recent Accounting Developments

A discussion of recent accounting developments is included in note 26 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 Annual 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 22

QUARTERLY TRENDS

	2018 Quarters				2017 Quarters			
	Fourth	Third	Second	First	Fourth	Third	Second	First
Earnings and dividends								
Amounts in thousands, except per share								
Interest income (taxable-equivalent basis)	$1,226,239	1,173,108	1,134,302	1,086,959	1,083,146	1,066,038	1,039,149	1,014,032
Interest expense	161,321	138,337	120,118	106,633	102,689	100,076	92,213	91,773
Net interest income	1,064,918	1,034,771	1,014,184	980,326	980,457	965,962	946,936	922,259
Less: provision for credit losses	38,000	16,000	35,000	43,000	31,000	30,000	52,000	55,000
Other income	480,596	459,294	457,414	458,696	484,053	459,429	460,816	446,845
Less: other expense	802,162	775,979	776,577	933,344	795,813	806,025	750,635	787,852
Income before income taxes	705,352	702,086	660,021	462,678	637,697	589,366	605,117	526,252
Applicable income taxes	153,175	170,262	161,464	105,259	306,287	224,615	215,328	169,326
Taxable-equivalent adjustment	5,958	5,733	5,397	4,809	9,007	8,828	8,736	7,999
Net income	$546,219	526,091	493,160	352,610	322,403	355,923	381,053	348,927
Net income available to common shareholders-diluted	$525,328	505,365	472,600	332,749	302,486	335,804	360,662	328,567
Per common share data								
Basic earnings	$3.76	3.54	3.26	2.24	2.01	2.22	2.36	2.13
Diluted earnings	3.76	3.53	3.26	2.23	2.01	2.21	2.35	2.12
Cash dividends	$1.00	1.00	.80	.75	.75	.75	.75	.75
Average common shares outstanding								
Basic	139,744	142,822	144,825	148,688	150,063	151,347	152,857	154,427
Diluted	139,838	142,976	144,998	148,905	150,348	151,691	153,276	154,949
Performance ratios, annualized								
Return on								
Average assets	1.84 %	1.80 %	1.70 %	1.22 %	1.06 %	1.18 %	1.27 %	1.15 %
Average common shareholders' equity	14.80 %	14.08 %	13.32 %	9.15 %	8.03 %	8.89 %	9.67 %	8.89 %
Net interest margin on average earning assets (taxable-	3.92 %	3.88 %	3.83 %	3.71 %	3.56 %	3.53 %	3.45 %	3.34 %

equivalent basis)								
Nonaccrual loans to otal loans and eases, net of unearned discount	1.01 %	1.00 %	.93 %	.99 %	1.00 %	.99 %	.98 %	1.04 %
Net operating tangible) results (a)								
Net operating ncome (in housands)	$550,169	530,619	497,869	357,498	326,664	360,658	385,974	354,035
Diluted net operating ncome per common hare	$3.79	3.56	3.29	2.26	2.04	2.24	2.38	2.15
Annualized return on								
Average tangible ssets	1.93 %	1.89 %	1.79 %	1.28 %	1.12 %	1.25 %	1.33 %	1.21 %
Average tangible common hareholders' equity	22.16 %	21.00 %	19.91 %	13.51 %	11.77 %	13.03 %	14.18 %	13.05 %
Efficiency ratio (b)	51.70 %	51.41 %	52.42 %	63.98 %	54.65 %	56.00 %	52.74 %	56.93 %
Balance sheet data								
n millions, except per share								
Average balances								
Total assets (c)	$117,799	115,997	116,413	117,684	120,226	119,515	120,765	122,978
Total tangible assets c)	113,169	111,363	111,775	113,041	115,584	114,872	116,117	118,326
Earning assets	107,785	105,835	106,210	107,231	109,412	108,642	109,987	112,008
nvestment securities	13,034	13,431	13,856	14,467	14,808	15,443	15,913	15,999
Loans and leases, net of unearned discount	87,301	87,132	87,406	87,766	87,837	88,386	89,268	89,797
Deposits	91,104	89,252	90,195	91,119	93,469	93,134	94,201	96,300
Common hareholders' equity c)	14,157	14,317	14,301	14,827	15,039	15,069	15,053	15,091
Tangible common hareholders' equity c)	9,527	9,683	9,663	10,184	10,397	10,426	10,405	10,439
At end of quarter								
Total assets (c)	$120,097	116,828	118,426	118,623	118,593	120,402	120,897	123,223
Total tangible assets c)	115,470	112,197	113,790	113,982	113,947	115,761	116,251	118,573
Earning assets	109,321	106,331	107,819	107,976	107,786	109,365	109,976	112,287
nvestment securities	12,693	13,074	13,283	14,067	14,665	15,074	15,816	15,968
Loans and leases, net of unearned discount	88,466	86,680	87,797	87,711	87,989	87,925	89,081	89,313
Deposits	90,157	89,140	89,273	90,947	92,432	93,513	93,541	97,043
Common hareholders' equity, net of undeclared	14,225	14,201	14,343	14,475	15,016	15,083	15,049	14,978

cumulative preferred dividends (c)								
Tangible common shareholders' equity (c)	9,598	9,570	9,707	9,834	10,370	10,442	10,403	10,328
Equity per common share	102.69	100.38	99.43	98.60	100.03	99.70	98.66	97.40
Tangible equity per common share	69.28	67.64	67.29	66.99	69.08	69.02	68.20	67.16
Market price per common share								
High	$171.01	180.77	188.80	197.37	176.62	166.85	164.03	173.72
Low	133.78	164.28	167.32	170.00	155.77	141.12	147.55	149.51
Closing	143.13	164.54	170.15	184.36	170.99	161.04	161.95	154.73

(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 23.

(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 23.

Table 23

RECONCILIATION OF QUARTERLY GAAP TO NON-GAAP MEASURES

	2018 Quarters				2017 Quarters			
	Fourth	Third	Second	First	Fourth	Third	Second	First
Income statement data (in thousands, except per share)								
Net income								
Net income	$546,219	526,091	493,160	352,610	322,403	355,923	381,053	348,927
Amortization of core deposit and other intangible assets (a)	3,950	4,528	4,709	4,888	4,261	4,735	4,921	5,108
Net operating income	$550,169	530,619	497,869	357,498	326,664	360,658	385,974	354,035
Earnings per common share								
Diluted earnings per common share	$3.76	3.53	3.26	2.23	2.01	2.21	2.35	2.12
Amortization of core deposit and other intangible assets (a)	.03	.03	.03	.03	.03	.03	.03	.03
Diluted net operating earnings per common share	$3.79	3.56	3.29	2.26	2.04	2.24	2.38	2.15
Other expense								
Other expense	$802,162	775,979	776,577	933,344	795,813	806,025	750,635	787,852
Amortization of core deposit and other intangible assets	(5,359)	(6,143)	(6,388)	(6,632)	(7,025)	(7,808)	(8,113)	(8,420)
Noninterest operating expense	$796,803	769,836	770,189	926,712	788,788	798,217	742,522	779,432
Efficiency ratio								
Noninterest operating expense (numerator)	$796,803	769,836	770,189	926,712	788,788	798,217	742,522	779,432

Taxable-equivalent net interest income	1,064,918	1,034,771	1,014,184	980,326	980,457	965,962	946,936	922,259
Other income	480,596	459,294	457,414	458,696	484,053	459,429	460,816	446,845
Less: Gain (loss) on bank investment								
securities	4,219	(3,415)	2,326	(9,431)	21,296	—	(17)	—
Denominator	$1,541,295	1,497,480	1,469,272	1,448,453	1,443,214	1,425,391	1,407,769	1,369,104
Efficiency ratio	51.70%	51.41%	52.42%	63.98%	54.65%	56.00%	52.74%	56.93%
Balance sheet data (in millions)								
Average assets								
Average assets	$117,799	115,997	116,413	117,684	120,226	119,515	120,765	122,978
Goodwill	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(50)	(55)	(62)	(68)	(75)	(82)	(90)	(98)
Deferred taxes	13	14	17	18	26	32	35	39
Average tangible assets	$113,169	111,363	111,775	113,041	115,584	114,872	116,117	118,326
Average common equity								
Average total equity	$15,389	15,549	15,533	16,059	16,271	16,301	16,285	16,323
Preferred stock	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)
Average common equity	14,157	14,317	14,301	14,827	15,039	15,069	15,053	15,091
Goodwill	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(50)	(55)	(62)	(68)	(75)	(82)	(90)	(98)
Deferred taxes	13	14	17	18	26	32	35	39
Average tangible common equity	$9,527	9,683	9,663	10,184	10,397	10,426	10,405	10,439
At end of quarter								
Total assets								
Total assets	$120,097	116,828	118,426	118,623	118,593	120,402	120,897	123,223
Goodwill	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(47)	(52)	(59)	(65)	(72)	(79)	(86)	(95)
Deferred taxes	13	14	16	17	19	31	33	38
Total tangible assets	$115,470	112,197	113,790	113,982	113,947	115,761	116,251	118,573
Total common equity								
Total equity	$15,460	15,436	15,578	15,710	16,251	16,318	16,284	16,213
Preferred stock	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)	(1,232)
Undeclared dividends -	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)

cumulative preferred stock								
Common equity, net of undeclared cumulative preferred dividends	14,225	14,201	14,343	14,475	15,016	15,083	15,049	14,978
Goodwill	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)	(4,593)
Core deposit and other intangible assets	(47)	(52)	(59)	(65)	(72)	(79)	(86)	(95)
Deferred taxes	13	14	16	17	19	31	33	38
Total tangible common equity	$9,598	9,570	9,707	9,834	10,370	10,442	10,403	10,328

(a) After any related tax effect.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.
Incorporated by reference to the discussion contained in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," under the captions "Liquidity, Market Risk, and Interest Rate Sensitivity" (including Table 20) and "Capital."

Item 8. Financial Statements and Supplementary Data.
Financial Statements and Supplementary Data consist of the financial statements as indexed and presented below and Table 22 "Quarterly Trends" presented in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Index to Financial Statements and Financial Statement Schedules

Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting at M&T Bank Corporation and subsidiaries (“the Company”). Management has assessed the effectiveness of the Company’s internal control over financial reporting as of December 31, 2018 based on criteria described in “Internal Control — Integrated Framework (2013)” issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that assessment, management concluded that the Company maintained effective internal control over financial reporting as of December 31, 2018.

The consolidated financial statements of the Company have been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, that was engaged to express an opinion as to the fairness of presentation of such financial statements. PricewaterhouseCoopers LLP was also engaged to assess the effectiveness of the Company’s internal control over financial reporting. The report of PricewaterhouseCoopers LLP follows this report.

M&T BANK CORPORATION

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

Darren J. King
Executive Vice President and Chief Financial Officer

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of

M&T Bank Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of M&T Bank Corporation and its subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2018, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31,2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report on Internal Control Over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed 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. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Buffalo, New York

February 20, 2019

We have served as the Company’s auditor since 1984.

M&T BANK CORPORATION AND SUBSIDIARIES

Consolidated Balance Sheet

(Dollars in thousands, except per share)	December 31 2018	2017
Assets		
Cash and due from banks	$ 1,605,439	$ 1,420,888
Interest-bearing deposits at banks	8,105,197	5,078,903
Trading account	185,584	132,909
Investment securities (includes pledged securities that can be sold or repledged of $487,365 at December 31, 2018; $487,151 at December 31, 2017)		
Available for sale (cost: $8,869,423 at December 31, 2018; $10,938,796 at December 31, 2017)	8,682,509	10,896,284
Held to maturity (fair value: $3,255,483 at December 31, 2018; $3,341,762 at December 31, 2017)	3,316,640	3,353,213
Equity and other securities (cost: $677,187 at December 31, 2018; $415,028 at December 31, 2017)	693,664	415,028
Total investment securities	12,692,813	14,664,525
Loans and leases	88,733,492	88,242,886
Unearned discount	(267,015)	(253,903)
Loans and leases, net of unearned discount	88,466,477	87,988,983
Allowance for credit losses	(1,019,444)	(1,017,198)
Loans and leases, net	87,447,033	86,971,785
Premises and equipment	647,408	646,451
Goodwill	4,593,112	4,593,112
Core deposit and other intangible assets	47,067	71,589
Accrued interest and other assets	4,773,750	5,013,325
Total assets	$ 120,097,403	$ 118,593,487
Liabilities		
Noninterest-bearing deposits	$ 32,256,668	$ 33,975,180
Savings and interest-checking deposits	50,963,744	51,698,008
Time deposits	6,124,254	6,580,962
Deposits at Cayman Islands office	811,906	177,996
Total deposits	90,156,572	92,432,146
Short-term borrowings	4,398,378	175,099
Accrued interest and other liabilities	1,637,348	1,593,993
Long-term borrowings	8,444,914	8,141,430
Total liabilities	104,637,212	102,342,668
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 December 31, 2018 and December 31, 2017;	1,231,500	1,231,500

Liquidation preference of $10,000 per share: 50,000 shares at December 31, 2018 and December 31, 2017		
Common stock, $.50 par, 250,000,000 shares authorized, 159,765,044 shares issued at December 31, 2018; 159,817,518 shares issued at December 31, 2017	79,883	79,909
Common stock issuable, 24,563 shares at December 31, 2018; 27,138 shares at December 31, 2017	1,726	1,847
Additional paid-in capital	6,579,342	6,590,855
Retained earnings	11,516,672	10,164,804
Accumulated other comprehensive income (loss), net	(420,081)	(363,814)
Treasury stock — common, at cost — 21,255,275 shares at December 31, 2018; 9,733,115 shares at December 31, 2017	(3,528,851)	(1,454,282)
Total shareholders' equity	15,460,191	16,250,819
Total liabilities and shareholders' equity	$120,097,403	$118,593,487

See accompanying notes to financial statements.

M&T BANK CORPORATION AND SUBSIDIARIES

Consolidated Statement of Income

(In thousands, except per share)	Year Ended December 31 2018	2017	2016
Interest income			
Loans and leases, including fees	$4,164,561	$3,742,867	$3,485,050
Investment securities			
Fully taxable	323,912	361,157	361,494
Exempt from federal taxes	665	1,431	2,606
Deposits at banks	108,182	61,326	45,516
Other	1,391	1,014	1,205
Total interest income	4,598,711	4,167,795	3,895,871
Interest expense			
Savings and interest-checking deposits	215,411	133,177	87,704
Time deposits	51,423	61,505	102,841
Deposits at Cayman Islands office	5,633	1,186	797
Short-term borrowings	5,386	1,511	3,625
Long-term borrowings	248,556	189,372	231,017
Total interest expense	526,409	386,751	425,984
Net interest income	4,072,302	3,781,044	3,469,887
Provision for credit losses	132,000	168,000	190,000
Net interest income after provision for credit losses	3,940,302	3,613,044	3,279,887
Other income			
Mortgage banking revenues	360,442	363,827	373,697
Service charges on deposit accounts	429,337	427,372	419,102
Trust income	537,585	501,381	472,184
Brokerage services income	51,069	61,445	63,423
Trading account and foreign exchange gains	32,547	35,301	41,126
Gain (loss) on bank investment securities	(6,301)	21,279	30,314
Other revenues from operations	451,321	440,538	426,150
Total other income	1,856,000	1,851,143	1,825,996
Other expense			
Salaries and employee benefits	1,752,264	1,648,794	1,618,074
Equipment and net occupancy	298,828	295,084	295,141
Outside data processing and software	199,025	184,670	172,389
FDIC assessments	68,526	101,871	105,045
Advertising and marketing	85,710	69,203	87,137
Printing, postage and supplies	35,658	35,960	39,546
Amortization of core deposit and other intangible assets	24,522	31,366	42,613
Other costs of operations	823,529	773,377	687,540
Total other expense	3,288,062	3,140,325	3,047,485
Income before taxes	2,508,240	2,323,862	2,058,398
Income taxes	590,160	915,556	743,284
Net income	$1,918,080	$1,408,306	$1,315,114
Net income available to common shareholders			

Basic	$1,836,028	$1,327,503	$1,223,459
Diluted	1,836,035	1,327,517	1,223,481
Net income per common share			
Basic	$12.75	$8.72	$7.80
Diluted	12.74	8.70	7.78

See accompanying notes to financial statements.

M&T BANK CORPORATION AND SUBSIDIARIES

Consolidated Statement of Comprehensive Income

	Year Ended December 31		
(In thousands)	2018	2017	2016
Net income	$1,918,080	1,408,306	$1,315,114
Other comprehensive income (loss), net of tax and reclassification adjustments:			
Net unrealized losses on investment securities	(86,523)	(19,766)	(64,406)
Cash flow hedges adjustments	6,091	(9,912)	(94)
Foreign currency translation adjustment	(2,225)	2,241	(2,614)
Defined benefit plans liability adjustments	43,243	22,288	24,105
Total other comprehensive loss	(39,414)	(5,149)	(43,009)
Total comprehensive income	$1,878,666	1,403,157	$1,272,105

See accompanying notes to financial statements.

M&T BANK CORPORATION AND SUBSIDIARIES

Consolidated Statement of Cash Flows

(In thousands)	Year Ended December 31 2018	2017	2016
Cash flows from operating activities			
Net income	$1,918,080	$1,408,306	$1,315,114
Adjustments to reconcile net income to net cash provided by operating activities			
Provision for credit losses	132,000	168,000	190,000
Depreciation and amortization of premises and equipment	104,864	109,587	106,996
Amortization of capitalized servicing rights	49,619	56,172	50,982
Amortization of core deposit and other intangible assets	24,522	31,366	42,613
Provision for deferred income taxes	15,857	400,790	174,013
Asset write-downs	24,774	15,429	21,036
Net gain on sales of assets	(23,503)	(53,467)	(63,222)
Net change in accrued interest receivable, payable	(7,162)	(17,896)	(12,282)
Net change in other accrued income and expense	13,436	(201,981)	60,263
Net change in loans originated for sale	(150,695)	711,657	(665,649)
Net change in trading account assets and liabilities	(11,940)	153,972	(36,453)
Net cash provided by operating activities	2,089,852	2,781,935	1,183,411
Cash flows from investing activities			
Proceeds from sales of investment securities			
Available for sale	418	534,160	63,513
Equity and other securities	650,858	178,468	94,749
Proceeds from maturities of investment securities			
Available for sale	1,997,263	2,131,118	2,309,208
Held to maturity	478,172	528,585	609,080
Purchases of investment securities			
Available for sale	(12,494)	(251,185)	(3,562,711)
Held to maturity	(444,703)	(1,425,690)	(214,791)
Equity and other securities	(834,856)	(132,378)	(1,808)
Net (increase) decrease in loans and leases	(475,895)	1,931,492	(2,952,129)
Net (increase) decrease in interest-bearing deposits at banks	(3,026,294)	(78,265)	2,593,712
Capital expenditures, net	(97,676)	(78,966)	(107,693)
Net decrease in loan servicing advances	307,252	37,761	170,141
Other, net	47,904	19,825	277,961
Net cash provided (used) by investing activities	(1,410,051)	3,394,925	(720,768)
Cash flows from financing activities			
Net increase (decrease) in deposits	(2,272,505)	(3,075,322)	3,554,673
Net increase (decrease) in short-term borrowings	4,223,279	11,657	(1,937,105)
Proceeds from long-term borrowings	1,773,189	2,145,950	—
Payments on long-term borrowings	(1,459,081)	(3,433,440)	(1,119,898)
Purchases of treasury stock	(2,194,396)	(1,205,905)	(641,334)
Dividends paid — common	(510,382)	(457,402)	(441,891)

Dividends paid — preferred	(72,521)	(72,734)	(81,270)
Redemption of Series D preferred stock	—	—	(500,000)
Proceeds from issuance of Series F preferred stock	—	—	495,000
Other, net	17,167	10,675	161,691
Net cash used by financing activities	(495,250)	(6,076,521)	(510,134)
Net increase (decrease) in cash, cash equivalents and restricted cash	184,551	100,339	(47,491)
Cash, cash equivalents and restricted cash at beginning of period	1,420,888	1,320,549	1,368,040
Cash, cash equivalents and restricted cash at end of period	$1,605,439	$1,420,888	$1,320,549
Supplemental disclosure of cash flow information			
Interest received during the period	$		