

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
For the transition period from _____ to _____
Commission File No. 001-13300

CAPITAL ONE FINANCIAL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or Other Jurisdiction of Incorporation or Organization)

1680 Capital One Drive,
McLean, Virginia
(Address of Principal Executive Offices)

54-1719854
(I.R.S. Employer Identification No.)

22102
(Zip Code)

Registrant's telephone number, including area code: (703) 720-1000

Securities registered pursuant to section 12(b) of the act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock (par value \$.01 per share)	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series B	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series C	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series D	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series F	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series G	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series H	New York Stock Exchange

Securities registered pursuant to section 12(g) of the act: None

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 (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

The aggregate market value of the voting stock held by non-affiliates of the registrant as of the close of business on June 30, 2018 was approximately \$43.1 billion. As of January 31, 2019, there were 467,880,673 shares of the registrant's Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

1. Portions of the Proxy Statement for the annual meeting of stockholders to be held on May 2, 2019, are incorporated by reference into Part III.

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PART I

Item 1. Business

OVERVIEW

General

Capital One Financial Corporation, a Delaware corporation established in 1994 and headquartered in McLean, Virginia, is a diversified financial services holding company with banking and non-banking subsidiaries. Capital One Financial Corporation and its subsidiaries (the “Company” or “Capital One”) offer a broad array of financial products and services to consumers, small businesses and commercial clients through branches, the internet, and other distribution channels.

As of December 31, 2018, our principal subsidiaries included:

- Capital One Bank (USA), National Association (“COBNA”), which offers credit and debit card products, other lending products and deposit products; and
- Capital One, National Association (“CONA”), which offers a broad spectrum of banking products and financial services to consumers, small businesses and commercial clients.

The Company is hereafter collectively referred to as “we,” “us” or “our.” COBNA and CONA are collectively referred to as the “Banks.” References to “this Report” or our “2018 Form 10-K” or “2018 Annual Report” are to our Annual Report on Form 10-K for the fiscal year ended December 31, 2018. All references to 2018, 2017, 2016, 2015 and 2014, refer to our fiscal years ended, or the dates, as the context requires, December 31, 2018, December 31, 2017, December 31, 2016, December 31, 2015 and December 31, 2014, respectively. Certain business terms used in this document are defined in the “MD&A—Glossary and Acronyms” and should be read in conjunction with the Consolidated Financial Statements included in this Report.

As one of the nation’s ten largest banks based on deposits as of December 31, 2018, we service banking customer accounts through the internet and mobile banking, as well as through branch locations, ATMs and Cafés primarily across New York, Louisiana, Texas, Maryland, Virginia, New Jersey and the District of Columbia. We also operate as one of the largest online direct banks in the United States (“U.S.”) by deposits. In addition to bank lending, treasury management and depository services, we offer credit and debit card products, auto loans and other consumer lending products in markets across the United States. We were the third largest issuer of Visa® (“Visa”) and MasterCard® (“MasterCard”) credit cards in the U.S. based on the outstanding balance of credit card loans as of December 31, 2018.

We also offer products outside of the U.S. principally through Capital One (Europe) plc (“COEP”), an indirect subsidiary of COBNA organized and located in the United Kingdom (“U.K.”), and through a branch of COBNA in Canada. Both COEP and our branch of COBNA in Canada have the authority to provide credit card loans.

Business Developments

We regularly explore and evaluate opportunities to acquire financial services and financial assets, including credit card and other loan portfolios, and enter into strategic partnerships as part of our growth strategy. We also explore opportunities to acquire digital companies and related assets to improve our information technology infrastructure and to deliver on our digital strategy. In addition, we regularly consider the potential disposition of certain of our assets, branches, partnership agreements or lines of business. We may issue equity or debt to fund our acquisitions.

On July 26, 2018, we announced that we entered into a new, long-term credit card program agreement with Walmart Inc. (“Walmart”). Under the terms of the agreement, we will become the exclusive issuer of Walmart’s cobrand and private label credit card program in the U.S. On January 22, 2019, we announced that we entered into a definitive agreement to acquire the existing portfolio of Walmart’s cobrand and private label credit card receivables. At closing, we expect the portfolio will consist of approximately \$9 billion of receivables. We expect to launch the new issuance program and close on the acquired portfolio late in the third quarter or early in the fourth quarter of 2019.

In the fourth quarter of 2017, we announced our decision to cease new originations of residential mortgage and home equity loan products within our Consumer Banking business. In 2018, we sold all of our consumer home loan portfolio and mortgage servicing rights related to loans serviced for others.

On September 25, 2017, we completed the acquisition from Synovus Bank of credit card assets and related liabilities of World's Foremost Bank, a wholly-owned subsidiary of Cabela's Incorporated ("Cabela's acquisition"). The Cabela's acquisition added approximately \$5.7 billion to our domestic credit card loans held for investment portfolio as of the acquisition date. On October 5, 2018, we completed the acquisition of the Bass Pro cobrand credit card portfolio ("Bass Pro acquisition") which added approximately \$534 million to our domestic credit card loans held for investment portfolio as of the acquisition date.

Additional Information

Our common stock trades on the New York Stock Exchange ("NYSE") under the symbol "COF" and is included in the Standard & Poor's ("S&P") 100 Index. We maintain a website at www.capitalone.com. Documents available under Corporate Governance in the Investor Relations section of our website include:

- our Code of Business Conduct and Ethics;
- our Corporate Governance Guidelines; and
- charters for the Audit, Compensation, Governance and Nominating, and Risk Committees of the Board of Directors.

These documents also are available in print to any stockholder who requests a copy. We intend to disclose future amendments to certain provisions of our Code of Business Conduct and Ethics, and waivers of our Code of Business Conduct and Ethics granted to executive officers and directors, on the website within four business days following the date of the amendment or waiver.

In addition, we make available free of charge through our website all of our U.S. Securities and Exchange Commission ("SEC") filings, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports, as soon as reasonably practicable after electronically filing or furnishing such material to the SEC at www.sec.gov.

OPERATIONS AND BUSINESS SEGMENTS

Our consolidated total net revenues are derived primarily from lending to consumer and commercial customers net of funding costs associated with our deposits, short-term borrowings and long-term debt. We also earn non-interest income which primarily consists of interchange income, net of reward expenses, service charges and other customer-related fees. Our expenses primarily consist of the provision for credit losses, operating expenses, marketing expenses and income taxes.

Our principal operations are organized for management reporting purposes into three major business segments, which are defined primarily based on the products and services provided or the types of customers served: Credit Card, Consumer Banking and Commercial Banking. The operations of acquired businesses have been integrated into our existing business segments. Certain activities that are not part of a segment, such as management of our corporate investment portfolio, asset/liability management by our centralized Corporate Treasury group and residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments, are included in the Other category.

- *Credit Card*: Consists of our domestic consumer and small business card lending, and international card businesses in Canada and the United Kingdom.
- *Consumer Banking*: Consists of our branch-based deposit gathering and lending activities for consumers and small businesses, national deposit gathering and national auto lending.
- *Commercial Banking*: Consists of our lending, deposit gathering, capital markets and treasury management services to commercial real estate and commercial and industrial customers. Our commercial and industrial customers typically include companies with annual revenues between \$20 million and \$2 billion.

Customer usage and payment patterns, credit quality, levels of marketing expense and operating efficiency all affect our profitability. In our Credit Card business, we experience fluctuations in purchase volume and the level of outstanding loan receivables due to seasonal variances in consumer spending and payment patterns which, for example, are highest around the winter holiday season. Net charge-off rates for our credit card loan portfolio also have historically exhibited seasonal patterns as well and generally tend to be the highest in the first and fourth quarters of the year. No individual quarter in 2018, 2017 or 2016 accounted for more than 30% of our total revenues in any of these fiscal years.

For additional information on our business segments, including the financial performance of each business, see “Part II—Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”)—Executive Summary and Business Outlook,” “MD&A—Business Segment Financial Performance” and “Note 18—Business Segments and Revenue from Contracts with Customers” of this Report.

COMPETITION

Each of our business segments operates in a highly competitive environment, and we face competition in all aspects of our business from numerous bank and non-bank providers of financial services.

Our Credit Card business competes with international, national, regional and local issuers of Visa and MasterCard credit cards, as well as with American Express®, Discover Card®, private-label card brands, and, to a certain extent, issuers of debit cards. In general, customers are attracted to credit card issuers largely on the basis of price, credit limit, reward programs and other product features.

Our Consumer Banking and Commercial Banking businesses compete with national, state and direct banks for deposits, commercial and auto loans, as well as with savings and loan associations and credit unions for loans and deposits. Our competitors also include automotive finance companies, commercial mortgage banking companies and other financial services providers that provide loans, deposits, and other similar services and products. In addition, we compete against non-depository institutions that are able to offer these products and services. Securities firms and insurance companies that elect to become financial holding companies may acquire banks and other financial institutions. Combinations of this type could significantly change the competitive environment in which we conduct business. The financial services industry is also likely to become more competitive as further technological advances enable more companies to provide financial services. These technological advances may diminish the importance of depository institutions and other financial intermediaries in the transfer of funds between parties. In addition, competition among direct banks is intense because online banking provides customers the ability to rapidly deposit and withdraw funds and open and close accounts in favor of products and services offered by competitors.

Our businesses generally compete on the basis of the quality and range of their products and services, transaction execution, innovation and price. Competition varies based on the types of clients, customers, industries and geographies served. Our ability to compete depends, in part, on our ability to attract and retain our associates and on our reputation. There can be no assurance, however, that our ability to market products and services successfully or to obtain adequate returns on our products and services will not be impacted by the nature of the competition that now exists or may later develop, or by the broader economic environment. For a discussion of the risks related to our competitive environment, please refer to “Part I—Item 1A. Risk Factors.”

SUPERVISION AND REGULATION

General

Capital One Financial Corporation is a bank holding company (“BHC”) and a financial holding company (“FHC”) under the Bank Holding Company Act of 1956, as amended (“BHC Act”), and is subject to the requirements of the BHC Act, including approval requirements for investments in or acquisitions of banking organizations, capital adequacy standards and limitations on nonbanking activities. As a BHC and FHC, we are subject to supervision, examination and regulation by the Board of Governors of the Federal Reserve System (“Federal Reserve”). Permissible activities for a BHC include those activities that are so closely related to banking as to be a proper incident thereto. In addition, a FHC is permitted to engage in activities considered to be financial in nature (including, for example, securities underwriting and dealing and merchant banking activities), incidental to financial activities or, if the Federal Reserve determines that they pose no risk to the safety or soundness of depository institutions or the financial system in general, activities complementary to financial activities.

To become and remain eligible for FHC status, a BHC and its subsidiary depository institutions must meet certain criteria, including capital, management and Community Reinvestment Act (“CRA”) requirements. Failure to meet such criteria could result, depending on which requirements were not met, in restrictions on new financial activities or acquisitions or being required to discontinue existing activities that are not generally permissible for BHCs.

The Banks are national associations chartered under the laws of the United States and the deposits of which are insured by the Deposit Insurance Fund (“DIF”) of the Federal Deposit Insurance Corporation (“FDIC”) up to applicable limits. The Banks are

subject to comprehensive regulation and periodic examination by the Office of the Comptroller of the Currency (“OCC”), the FDIC and the Consumer Financial Protection Bureau (“CFPB”).

We are also registered as a financial institution holding company under the laws of the Commonwealth of Virginia and, as such, we are subject to periodic examination by the Virginia Bureau of Financial Institutions. We also face regulation in the international jurisdictions in which we conduct business. See “Regulation of Businesses by Authorities Outside the United States” below for additional details.

Regulation of Business Activities

The business activities of the Company and the Banks are also subject to regulation and supervision under various laws and regulations.

Regulations of Consumer Lending Activities

The activities of the Banks as consumer lenders are subject to regulation under various federal laws, including, for example, the Truth in Lending Act (“TILA”), the Equal Credit Opportunity Act, the Fair Credit Reporting Act, the CRA, the Servicemembers Civil Relief Act and the Military Lending Act, as well as under various state laws. TILA, as amended, imposes a number of restrictions on credit card practices impacting rates and fees, requires that a consumer’s ability to pay be taken into account before issuing credit or increasing credit limits, and imposes revised disclosures required for open-end credit.

Depending on the underlying issue and applicable law, regulators may be authorized to impose penalties for violations of these statutes and, in certain cases, to order banks to compensate customers. Borrowers may also have a private right of action for certain violations. Federal bankruptcy and state debtor relief and collection laws may also affect the ability of a bank, including the Banks, to collect outstanding balances owed by borrowers.

Debit Interchange Fees

The Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”) requires that the amount of any interchange fee received by a debit card issuer with respect to debit card transactions be reasonable and proportional to the cost incurred by the issuer with respect to the transaction. Rules adopted by the Federal Reserve to implement these requirements limit interchange fees per debit card transaction to \$0.21 plus five basis points of the transaction amount and provide for an additional \$0.01 fraud prevention adjustment to the interchange fee for issuers that meet certain fraud prevention requirements.

Privacy

We are subject to multiple federal and state laws concerning data privacy, such as the Gramm-Leach Bliley Act. This area has seen increasing legislative and regulatory activity. For example, in 2018, the State of California passed the California Consumer Privacy Act (“CCPA”), which creates obligations on covered companies to, among other things, share certain information they have collected about individuals who are California residents with those individuals, subject to some exceptions. The California Attorney General is engaged in a public comment period on the law and will issue CCPA regulations by July 1, 2020. We continue to analyze the CCPA to determine its applicability and impact to our business, and we continue to monitor data privacy legal developments in other federal and state jurisdictions.

Bank Secrecy Act and USA PATRIOT Act of 2001

The Bank Secrecy Act and the USA PATRIOT Act of 2001 (“Patriot Act”) require financial institutions, among other things, to implement a risk-based program reasonably designed to prevent money laundering and to combat the financing of terrorism, including through suspicious activity and currency transaction reporting, compliance, record-keeping and customer due diligence.

In May 2016, the United States Department of the Treasury’s Financial Crimes Enforcement Network issued a final rule making customer due diligence a required, stand-alone part of the anti-money laundering programs financial institutions must maintain under the Bank Secrecy Act. For these purposes, the term “customer due diligence” refers to customer identification and verification, beneficial ownership identification and verification, understanding the nature and purpose of customer relationships to develop a customer risk profile, ongoing monitoring for reporting suspicious transactions and, on a risk-adjusted basis, maintaining and updating customer information. The rule required full compliance by May 11, 2018 for Capital One and all other covered financial institutions.

The Patriot Act also contains financial transparency laws and provides enhanced information collection tools and enforcement mechanisms to the U.S. government, including due diligence and record-keeping requirements for private banking and correspondent accounts; standards for verifying customer identification at account opening; rules to produce certain records upon request of a regulator or law enforcement agency; and rules to promote cooperation among financial institutions, regulators and law enforcement agencies in identifying parties that may be involved in terrorism, money laundering and other crimes.

Funding

Under the Federal Deposit Insurance Corporation Improvement Act of 1991 (“FDICIA”), as discussed in “MD&A—Liquidity Risk Profile,” only well capitalized and adequately capitalized institutions may accept brokered deposits. Adequately capitalized institutions, however, must obtain a waiver from the FDIC before accepting brokered deposits, and such institutions may not pay rates that significantly exceed the rates paid on deposits of similar maturity obtained from the institution’s normal market area or, for deposits obtained from outside the institution’s normal market area, the national rate on deposits of comparable maturity. The FDIC is authorized to terminate a bank’s deposit insurance upon a finding by the FDIC that the bank’s financial condition is unsafe or unsound or that the institution has engaged in unsafe or unsound practices or has violated any applicable rule, regulation, order or condition enacted or imposed by the bank’s regulatory agency. The termination of deposit insurance would likely have a material adverse effect on a bank’s liquidity and earnings.

Nonbank Activities

Certain of our nonbank subsidiaries are subject to supervision and regulation by various other federal and state authorities. Capital One Advisors, LLC is an investment adviser registered with the SEC and regulated under the Investment Advisers Act of 1940. Capital One Securities, Inc. and Capital One Investing, LLC are registered broker-dealers regulated by the SEC and the Financial Industry Regulatory Authority. Our broker-dealer subsidiaries are subject, among other things, to net capital rules designed to measure the general financial condition and liquidity of a broker-dealer. Under these rules, broker-dealers are required to maintain the minimum net capital deemed necessary to meet their continuing commitments to customers and others, and to keep a substantial portion of their assets in relatively liquid form. These rules also limit the ability of a broker-dealer to transfer capital to its parent companies and other affiliates. Broker-dealers are also subject to regulations covering their business operations, including sales and trading practices, public offerings, publication of research reports, use and safekeeping of client funds and securities, capital structure, record-keeping and the conduct of directors, officers and employees.

Derivatives Activities

The Commodity Futures Trading Commission (“CFTC”) and the SEC have jointly issued final rules further defining the Dodd-Frank Act’s “swap dealer” definitions. Based on these rules, no Capital One entity is currently required to register with the CFTC or SEC as a swap dealer. The Dodd-Frank Act also requires all swap market participants to keep certain swap transaction records and report pertinent information to swap data repositories on a real-time and ongoing basis. Further, each swap, group, category, type or class of swap that the CFTC or SEC determines must be cleared through a derivatives clearinghouse (unless the swap is eligible for a clearing exemption) must also be executed on a designated contract market (“DCM”), exchange or swap execution facility (“SEF”), unless no DCM, exchange or SEF has made the swap available for trading.

Volcker Rule

We and each of our subsidiaries, including the Banks, are subject to the “Volcker Rule,” a provision of the Dodd-Frank Act that contains prohibitions on proprietary trading and certain investments in, and relationships with, covered funds (hedge funds, private equity funds and similar funds), subject to certain exemptions, in each case as the applicable terms are defined in the Volcker Rule and the implementing regulations. The implementing regulations also require that we establish and maintain an enhanced compliance program designed to ensure that we comply with the requirements of the regulations.

In May 2018, the Federal Reserve, OCC, FDIC (collectively, the “Federal Banking Agencies”), along with the SEC and CFTC, proposed changes to the regulations implementing the Volcker Rule intended to simplify and tailor the regulations. There is uncertainty regarding the timing and form of any final rule implementing Volcker Rule changes.

Capital and Liquidity Regulation

The Company and the Banks are subject to capital adequacy guidelines adopted by the Federal Reserve and OCC. For a further discussion of the capital adequacy guidelines, see “MD&A—Capital Management,” “MD&A—Liquidity Risk Profile” and “Note 12—Regulatory and Capital Adequacy.”

Basel III and United States Capital Rules

In December 2010, the Basel Committee on Banking Supervision (“Basel Committee”) published a framework for additional capital and liquidity requirements (“Basel III”), which included detailed capital ratios and buffers, subject to transition periods.

The Federal Banking Agencies have issued regulations (“Basel III Capital Rule”) that implement certain capital and liquidity requirements published by the Basel Committee, along with certain Dodd-Frank Act and other capital provisions. The Basel III Capital Rule includes the “Basel III Standardized Approach” and the “Basel III Advanced Approaches.”

The Basel III Advanced Approaches are mandatory for institutions with total consolidated assets of \$250 billion or more or total consolidated on-balance sheet foreign exposure of \$10 billion or more. Prior to full implementation of the Basel III Advanced Approaches, however, a covered institution must complete a qualification period, known as parallel run, during which it must demonstrate that it meets the requirements of the rule to the satisfaction of its primary U.S. banking regulator. We entered parallel run on January 1, 2015.

Notwithstanding the Basel III Advanced Approaches, the Basel III Capital Rule also established a capital floor so that organizations subject to the Basel III Advanced Approaches may not hold less capital than would be required using the Basel III Standardized Approach capital calculations.

The Basel III Capital Rule revised the definition of regulatory capital, established a new common equity Tier 1 capital requirement, set higher minimum capital ratio requirements, introduced a new capital conservation buffer of 2.5%, and introduced a new countercyclical capital buffer (currently set at 0.0%). Compliance with certain aspects of the Basel III Capital Rule went into effect for Capital One as of January 1, 2014, and other provisions have gone or will go into effect according to various start dates and phase-in periods. As of January 1, 2014, the minimum risk-based and leverage capital requirements for Advanced Approaches banking organizations included a common equity Tier 1 capital ratio of at least 4.0%, a Tier 1 risk-based capital ratio of at least 5.5%, a total risk-based capital ratio of at least 8.0% and a Tier 1 leverage capital ratio of at least 4.0%. On January 1, 2015, the minimum risk-based capital ratio requirements increased to 4.5% for the common equity Tier 1 capital ratio and to 6.0% for the Tier 1 risk-based capital ratio, and the minimum requirements for the total risk-based capital ratio and Tier 1 leverage capital ratio remained the same. Both the capital conservation buffer and the countercyclical capital buffer were phased-in over a transition period that ended January 1, 2019. On January 1, 2014, we began to use the Basel III Capital Rule, with transition provisions, to calculate our regulatory capital, including for purposes of calculating our regulatory capital ratios. On January 1, 2015, we began to use the Basel III Standardized Approach for calculating our risk-weighted assets in our regulatory capital ratios.

The Basel III Capital Rule also introduced a new supplementary leverage ratio for all Advanced Approaches banking organizations with a minimum requirement of 3.0%. The supplementary leverage ratio compares Tier 1 capital to total leverage exposure, which includes all on-balance sheet assets and certain off-balance sheet exposures, including derivatives and unused commitments. Given that we are in our Basel III Advanced Approaches parallel run, we calculate the ratio based on Tier 1 capital under the Basel III Standardized Approach. The minimum requirement for the supplementary leverage ratio became effective on January 1, 2018. For further information, see “MD&A—Capital Management.”

Global systemically important banks (“G-SIBs”) that are based in the U.S. are subject to an additional common equity Tier 1 capital requirement (“G-SIB Surcharge”). We are not a G-SIB based on the most recent available data and thus we are not subject to a G-SIB Surcharge.

In December 2018, the Federal Banking Agencies issued a final rule to address regulatory capital treatment of credit loss allowances under the current expected credit loss (“CECL”) model. The CECL model will be applicable to Capital One as of January 1, 2020. The rule (“CECL Capital Rule”) revises the Federal Banking Agencies’ regulatory capital rules to identify which credit loss allowances under the CECL model are eligible for inclusion in regulatory capital and to provide banking organizations the option to phase in over three years the day-one adverse effects on regulatory capital that may result from the adoption of the CECL model. The effects of the CECL Capital Rule on our capital requirements are currently uncertain.

Market Risk Rule

The “Market Risk Rule” supplements both the Basel III Standardized Approach and the Basel III Advanced Approaches by requiring institutions subject to the Market Risk Rule to adjust their risk-based capital ratios to reflect the market risk in their trading portfolios. The Market Risk Rule generally applies to institutions with aggregate trading assets and liabilities equal to the lesser of:

- 10% or more of total assets; or

- \$1 billion or more.

As of December 31, 2018, the Company and CONA are subject to the Market Risk Rule. See “MD&A—Market Risk Profile” below for additional information.

Basel III and United States Liquidity Rules

The Basel Committee has published a liquidity framework that includes two standards for liquidity risk supervision, each subject to observation periods and transitional arrangements. One standard, the liquidity coverage ratio (“LCR”), seeks to promote short-term resilience by requiring organizations to hold sufficient high-quality liquid assets to survive a stress scenario lasting for 30 days. The other standard, the net stable funding ratio (“NSFR”), seeks to promote longer-term resilience by requiring sufficient stable funding over a one-year period based on the liquidity characteristics of its assets and activities.

The Company and the Banks are subject to the LCR as implemented by the Federal Reserve and OCC (“LCR Rule”). The LCR Rule requires the Company and each of the Banks to hold an amount of eligible high-quality, liquid assets that equals or exceeds 100% of their respective projected net cash outflows over a 30-day period, each as calculated in accordance with the LCR Rule. The LCR Rule requires us to calculate the LCR daily. Each company subject to the LCR Rule is required to make quarterly public disclosures of its LCR and certain related quantitative liquidity metrics, along with a qualitative discussion of its LCR. The Company became subject to these disclosure requirements beginning April 1, 2018.

In April 2016, the Federal Banking Agencies issued an interagency notice of proposed rulemaking regarding the U.S. implementation of the Basel III NSFR (the “Proposed NSFR”), which would apply to the same institutions subject to the LCR Rule. The Proposed NSFR would require us to maintain a sufficient amount of stable funding in relation to our assets, derivatives exposures and commitments over a one-year horizon period. Although the Proposed NSFR is generally consistent with the Basel NSFR standard, it is more stringent in certain areas. The financial and operational impact on us of a final NSFR rule remains uncertain until a final rule is published. There is uncertainty regarding the timing and form of any final rule implementing the NSFR in the United States.

U.S. implementation of the above capital and liquidity rules would generally result in increased capital and liquidity requirements for us.

Proposed Changes to Capital and Liquidity Requirements

In October 2018, the Federal Banking Agencies proposed to provide tailored requirements for certain of the capital and liquidity rules discussed above for different categories of banking institutions (“Tailoring Proposed Rule”). As proposed, these categories would be determined by an institution’s asset size, with adjustments to a more stringent category possible if the institution meets certain other thresholds. As a BHC with total consolidated assets of at least \$250 billion, we would be a Category III institution under the Tailoring Proposed Rule. As such, we would no longer be subject to the Basel III Advanced Approaches and certain associated capital requirements, although we would remain subject to the countercyclical capital buffer and supplementary leverage ratio, which are currently required only for Basel III Advanced Approaches institutions. Because we would be a Category III institution with less than \$75 billion in weighted average short-term wholesale funding, the Tailoring Proposed Rule would modify the amount of high-quality liquid assets we must hold under the LCR Rule, and would modify the required stable funding amount for us under the Proposed NSFR. The financial and operational impact on us of the Tailoring Proposed Rule remains uncertain until a final rule is published.

In addition, in October 2017, the Federal Banking Agencies proposed certain more limited changes to the Basel III Capital Rule. In light of the Tailoring Proposed Rule, there is uncertainty regarding how any of the proposed changes may impact the Basel III Standardized Approach and the Basel III Advanced Approaches. Also, in December 2017, the Basel Committee finalized certain modifications to the international Basel III capital standards, which would require rulemaking in the U.S. prior to becoming effective for U.S. banking organizations. There is uncertainty around which of those changes may be adopted in the U.S. and how those changes may impact the U.S. capital framework.

We will continue to monitor implementation by the Federal Banking Agencies of the new capital and liquidity rules and assess the potential impact to us.

FDICIA and Prompt Corrective Action

The FDICIA requires the Federal Banking Agencies to take “prompt corrective action” for banks that do not meet minimum capital requirements. The FDICIA establishes five capital ratio levels: well capitalized; adequately capitalized; undercapitalized; significantly undercapitalized; and critically undercapitalized. The three undercapitalized categories are based upon the amount by which a bank falls below the ratios applicable to an adequately capitalized institution. The capital categories are determined solely for purposes of applying the FDICIA’s prompt corrective action (“PCA”) provisions, and such capital categories may not constitute an accurate representation of the Banks’ overall financial condition or prospects.

The Basel III Capital Rule updated the PCA framework to reflect new, higher regulatory capital minimums. For an insured depository institution to be well capitalized, it must maintain a total risk-based capital ratio of 10% or more; a Tier 1 capital ratio of 8% or more; a common equity Tier 1 capital ratio of 6.5% or more; and a leverage ratio of 5% or more. An adequately capitalized depository institution must maintain a total risk-based capital ratio of 8% or more; a Tier 1 capital ratio of 6% or more; a common equity Tier 1 capital ratio of 4.5% or more; a leverage ratio of 4% or more; and, for Basel III Advanced Approaches institutions, a supplementary leverage ratio, which incorporates a broader set of exposures as noted above, of 3% or more. The revised PCA requirements became effective on January 1, 2015, other than the supplementary leverage ratio, which became effective on January 1, 2018.

Under applicable regulations for 2014, before the revised PCA requirements became effective, an insured depository institution was considered to be well capitalized if it maintained a total risk-based capital ratio of at least 10%, a Tier 1 risk-based capital ratio of at least 6%, a Tier 1 leverage capital ratio of at least 5% and was not subject to any supervisory agreement, order or directive to meet and maintain a specific capital level for any capital measure. The PCA provisions also authorize the Federal Banking Agencies to reclassify a bank’s capital category or take other action against banks that are determined to be in an unsafe or unsound condition or to have engaged in unsafe or unsound banking practices.

As an additional means to identify problems in the financial management of depository institutions, the FDICIA required the Federal Banking Agencies to establish certain non-capital safety and soundness standards. The standards relate generally to operations and management, asset quality, interest rate exposure and executive compensation. The Federal Banking Agencies are authorized to take action against institutions that fail to meet such standards.

Enhanced Prudential Standards and Other Requirements Under the Dodd-Frank Act

We are a “covered company” subject under the Dodd-Frank Act to certain enhanced prudential standards, including requirements that may be recommended by the Financial Stability Oversight Council (“FSOC”) and implemented by the Federal Reserve and other regulators. We remain a covered company under the amendments to the Dodd-Frank Act made by the Economic Growth, Regulatory Relief, and Consumer Protection Act (“EGRRCPA”), which provided reduced enhanced prudential standards for institutions with less than \$250 billion in assets. As a result, we are subject to more stringent standards and requirements than those applicable to institutions that are not covered companies. The FSOC may also issue recommendations to the Federal Reserve or other primary financial regulatory agencies to apply new or enhanced standards to certain financial activities or practices.

The Federal Reserve and FDIC have issued rules requiring the Company to implement resolution planning for orderly resolution in the event the covered company faces material financial distress or failure. The FDIC issued similar rules regarding resolution planning applicable to the Banks. In addition, the OCC has issued revised rules requiring banks with assets of \$250 billion or more to develop recovery plans detailing the actions they would take to remain a going concern when they experience considerable financial or operational stress, but have not deteriorated to the point that resolution is imminent.

The Federal Reserve established a rule that implements the requirement in the Dodd-Frank Act that the Federal Reserve conduct annual stress tests on the capacity of our capital to absorb losses as a result of adverse economic conditions. The stress test rule also implements the requirement that we conduct our own semi-annual stress tests and publish the results of the stress tests on our website or other public forum. The OCC adopted a similar stress test rule to implement the requirement that each of the Banks conduct annual stress tests. In December 2018 and January 2019, the Federal Banking Agencies proposed rules consistent with EGRRCPA amendments to the Dodd-Frank Act that would exclude banks with less than \$250 billion in assets, including COBNA, from an obligation to conduct their own tests, and permit CONA to conduct a company-run stress tests every two years rather than annually. In addition, the Tailoring Proposed Rule would permit the Company to conduct a company-run stress test every two years rather than annually.

The Federal Reserve also established rules implementing other aspects of the enhanced prudential standards under the Dodd-Frank Act (“Enhanced Standards Rule”). Under the Enhanced Standards Rule, the Company must meet liquidity risk management

standards, conduct internal liquidity stress tests, and maintain a 30-day buffer of highly liquid assets, in each case, consistent with the requirements of the Enhanced Standards Rule. These requirements are in addition to the LCR, discussed above in “Basel III and United States Liquidity Rules.” The Enhanced Standards Rule also requires that the Company comply with, and hold capital commensurate with, the requirements of, any regulations adopted by the Federal Reserve relating to capital planning and stress tests. Stress testing and capital planning regulations are discussed further below under “Dividends, Stock Repurchases and Transfers of Funds.” The Enhanced Standards Rule also requires that the Company establish and maintain an enterprise-wide risk management framework that includes a risk committee and a chief risk officer.

Although not a requirement of the Dodd-Frank Act, the OCC established regulatory guidelines (“Heightened Standards Guidelines”) that apply heightened standards for risk management to large institutions subject to its supervision, including the Banks. The Heightened Standards Guidelines establish standards for the development and implementation by the Banks of a risk governance framework.

Investment in the Company and the Banks

Certain acquisitions of our capital stock may be subject to regulatory approval or notice under federal or state law. Investors are responsible for ensuring that they do not, directly or indirectly, acquire shares of our capital stock in excess of the amount that can be acquired without regulatory approval, including under the BHC Act and the Change in Bank Control Act (“CIBC Act”).

Federal law and regulations prohibit any person or company from acquiring control of the Company or the Banks without, in most cases, prior written approval of the Federal Reserve or the OCC, as applicable. Control exists if, among other things, a person or company acquires more than 25% of any class of our voting stock or otherwise has a controlling influence over us. For a publicly traded BHC such as ourselves, a rebuttable presumption of control arises under the CIBC Act if a person or company acquires more than 10% of any class of our voting stock.

Additionally, COBNA and CONA are “banks” within the meaning of Chapter 13 of Title 6.1 of the Code of Virginia governing the acquisition of interests in Virginia financial institutions (“Financial Institution Holding Company Act”). The Financial Institution Holding Company Act prohibits any person or entity from acquiring, or making any public offer to acquire, control of a Virginia financial institution or its holding company without making application to, and receiving prior approval from, the Virginia Bureau of Financial Institutions.

Dividends, Stock Repurchases and Transfers of Funds

Under the Federal Reserve’s capital planning rules (commonly referred to as Comprehensive Capital Analysis and Review or “CCAR”), “covered BHCs,” including ourselves, must submit a capital plan to the Federal Reserve on an annual basis that contains a description of all planned capital actions, including dividends or stock repurchases, over a nine-quarter planning horizon beginning with the fourth quarter of the calendar year prior to the submission of the capital plan (“CCAR cycle”). A covered BHC may take the proposed capital actions if the Federal Reserve does not object to the plan.

Dodd-Frank Act stress testing, described above in “Enhanced Prudential Standards and Other Requirements under the Dodd-Frank Act,” is a complementary exercise to CCAR. It is a forward-looking exercise conducted by the Federal Reserve and covered financial companies to help assess whether a company has sufficient capital to absorb losses and support operations during adverse economic conditions. The supervisory stress test, after incorporating a firm’s planned capital actions, is used for quantitative assessment in CCAR.

As part of its evaluation of a large BHC’s capital plan, the Federal Reserve will consider how comprehensive the plan is, the reasonableness of the assumptions, analysis and methodologies used therein to assess capital adequacy and the ability of the BHC to maintain capital above each minimum regulatory capital ratio on a pro-forma basis under expected and stressful conditions throughout a planning horizon of at least nine quarters. The annual CCAR cycle measures our capital levels under the Basel III Standardized Approach. The Federal Reserve has indefinitely delayed incorporation of the Basel III Advanced Approaches into the capital planning and stress testing process. The Company must file its capital plan and stress testing results with the Federal Reserve by April 5, 2019, using data as of the end of the prior calendar year. The Federal Reserve is expected to provide its objection or non-objection to that capital plan in June of that year. The Federal Reserve’s objection or non-objection applies to planned capital actions from the third quarter of the year the capital plan is submitted through the end of the second quarter of the following year. The Company, along with other BHCs subject to the supplementary leverage ratio, must incorporate an estimate of its supplementary leverage ratio into its capital plan and stress tests.

The current capital planning and stress testing rules place supervisory focus on quarterly capital issuances and distributions by establishing a cumulative net distribution requirement. Under a “de minimis” exception, if a company does not receive an objection to its capital plan, it may in certain cases distribute up to 0.25% of its Tier 1 capital above the distributions in its capital plan. With certain limited exceptions, to the extent a BHC does not issue the amount of a given class of regulatory capital instrument that it projected in its capital plan, as measured on an aggregate basis beginning in the third quarter of the planning horizon, the BHC must reduce its capital distributions.

In April 2018, the Federal Reserve issued a proposed rule (“Stress Capital Buffer Proposed Rule”) that would implement a firm-specific “stress capital buffer” requirement and a “stress leverage buffer” requirement. Under the Stress Capital Buffer Proposed Rule, a firm’s stress capital buffer would have a floor of 2.5% of total risk-weighted assets, replacing the existing 2.5% capital conservation buffer, and would equal, as a percentage of total risk-weighted assets, the sum of (i) the difference between a firm’s starting common equity Tier 1 capital ratio and the low point under the severely adverse scenario of the Federal Reserve’s supervisory stress test plus (ii) the ratio of the firm’s projected four quarters of common stock dividends to risk-weighted assets as projected under CCAR (for the fourth to seventh quarters of the planning horizon). A firm’s new “Standardized Approach capital conservation buffer” would include its stress capital buffer, any G-SIB surcharge, and any applicable countercyclical capital buffer (currently set at zero in the United States). The consequences of breaching the stress capital buffer requirement would be consistent with the current capital conservation buffer framework and would result in increasingly strict limitations on capital distributions and discretionary bonus payments. The Stress Capital Buffer Proposed Rule also replaces the current CCAR post-stress leverage ratio requirement with a stress leverage buffer requirement, which would be equal to the sum of (i) the difference between the firm’s starting and lowest projected Tier 1 leverage ratios under the severely adverse scenario in CCAR plus (ii) the ratio of the same four quarters of projected dividend payments as for the stress capital buffer to the leverage ratio denominator. Additionally, the proposal would modify certain CCAR assumptions relating to prefunding of dividends and balance sheet growth. The proposed stress buffer requirements would also eliminate the CCAR quantitative objection. The Federal Reserve has indicated that these changes, if finalized, would not go into effect until at least the 2020 stress testing cycle.

In December 2018, the Federal Reserve released a statement outlining how it would incorporate CECL into its supervisory stress tests and its assessment of company-run stress tests. In the statement, the Federal Reserve said that it planned to maintain its current framework for calculating allowances on loans in the supervisory stress test for the 2020 and 2021 supervisory stress testing cycles. The Federal Reserve stated further that although bank holding companies required to perform company-run stress tests as part of CCAR will be required to incorporate CECL into those stress tests starting in the 2020 cycle, it will not issue supervisory findings on those firms’ allowance estimations in the CCAR exercise through 2021. The effects of CECL and the CECL Capital Rule on our capital planning and stress testing processes are currently uncertain.

Historically, dividends from the Company’s direct and indirect subsidiaries have represented a major source of the funds we have used to pay dividends on our stock, make payments on corporate debt securities and meet our other obligations. There are various federal law limitations on the extent to which the Banks can finance or otherwise supply funds to us through dividends and loans. These limitations include minimum regulatory capital requirements, federal banking law requirements concerning the payment of dividends out of net profits or surplus, provisions of Sections 23A and 23B of the Federal Reserve Act and Regulation W governing transactions between an insured depository institution and its affiliates, as well as general federal regulatory oversight to prevent unsafe or unsound practices. In general, federal and applicable state banking laws prohibit insured depository institutions, such as the Banks, from making dividend distributions without first obtaining regulatory approval if such distributions are not paid out of available earnings or would cause the institution to fail to meet applicable capital adequacy standards.

Deposit Insurance Assessments

Each of CONA and COBNA, as an insured depository institution, is a member of the DIF maintained by the FDIC. Through the DIF, the FDIC insures the deposits of insured depository institutions up to prescribed limits for each depositor. The FDIC sets a Designated Reserve Ratio (“DRR”) for the DIF. To maintain the DIF, member institutions may be assessed an insurance premium, and the FDIC may take action to increase insurance premiums if the DRR falls below its required level.

Source of Strength and Liability for Commonly Controlled Institutions

Under regulations issued by the Federal Reserve, a BHC must serve as a source of financial and managerial strength to its subsidiary banks (the so-called “source of strength doctrine”). The Dodd-Frank Act codified this doctrine.

Under the “cross-guarantee” provision of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (“FIRREA”), insured depository institutions such as the Banks may be liable to the FDIC with respect to any loss incurred, or reasonably

anticipated to be incurred, by the FDIC in connection with the default of, or FDIC assistance to, any commonly controlled insured depository institution. The Banks are commonly controlled within the meaning of the FIRREA cross-guarantee provision.

FDIC Orderly Liquidation Authority

The Dodd-Frank Act provides the FDIC with liquidation authority that may be used to liquidate nonbank financial companies and BHCs if the Treasury Secretary, in consultation with the President and based on the recommendation of the Federal Reserve and another federal agency, determines that doing so is necessary, among other criteria, to mitigate serious adverse effects on U.S. financial stability. Upon such a determination, the FDIC would be appointed receiver and must liquidate the company in a way that mitigates significant risks to financial stability and minimizes moral hazard. The costs of a liquidation of a financial company would be borne by shareholders and unsecured creditors and then, if necessary, by risk-based assessments on large financial companies. The FDIC has issued rules implementing certain provisions of its liquidation authority and may issue additional rules in the future.

Regulation of Businesses by Authorities Outside the United States

COBNA is subject to regulation in foreign jurisdictions where it operates, currently in the United Kingdom and Canada.

United Kingdom

In the United Kingdom, COBNA operates through COEP, which was established in 2000 and is an authorized payment institution regulated by the Financial Conduct Authority ("FCA") under the Payment Services Regulations 2009 and the Financial Services and Markets Act 2000. COEP's indirect parent, Capital One Global Corporation, is wholly-owned by COBNA and is subject to regulation by the Federal Reserve as an "agreement corporation" under the Federal Reserve's Regulation K.

Regulatory focus on Payment Protection Insurance ("PPI") complaint handling has continued, and PPI continues to be a key driver of consumer complaints to the Financial Ombudsman Service ("FOS"). Having set a deadline of August 29, 2019 for the submission of PPI complaints, the FCA has completed three of four parts of its advertising campaign designed to raise consumer awareness of the deadline. Given the increase in complaint volumes that this has created, and in order to monitor operational resilience across the industry, the FCA has closely supervised large PPI distributors' handling of complaints (including COEP) through a weekly review of PPI inquiries and complaints data, detailed requests for information focused on the handling of PPI inquiries and complaints, and the treatment of vulnerable customers in the PPI complaints process.

The FCA's rules on persistent debt and early intervention were published in February 2018 and became effective in September 2018. The new rules are designed to re-balance incentives so that both firms and customers are encouraged to avoid credit card debt becoming persistent, and customers who cannot afford to repay their debt in a timely manner are given assistance.

The Payment Services Regulations 2017 ("PSD2") came into force on January 13, 2018. The principal focus of PSD2 is to improve consumer protection and to promote competition, innovation and the development of innovative mobile and internet payments in Europe. PSD2 requires COEP to adopt specific procedures for responding to Payments Services complaints. The next core phase of PSD2 is the implementation of the European Banking Authority Regulated Technical Standards on Secure Customer Authentication. These standards must be implemented by September 2019 and are designed to enhance consumer protection by making electronic payments more secure.

The General Data Protection Regulation ("GDPR") came into force on May 25, 2018. COEP has focused on GDPR implementation, which involved updating privacy notices and improving its ability to demonstrate compliance with GDPR on an ongoing basis. Due to the increased regulatory powers in relation to fines and external focus on data privacy, the potential for there to be data related complaints and regulatory action is heightened.

In July 2018, the FCA published near final rules that extended the Senior Manager and Certification Regime ("SM&CR") to almost all regulated firms, including COEP. The SM&CR focuses on senior managers and individual accountability within financial services firms by raising the standards of conduct for individuals in the financial services industry and by increasing senior individuals responsibility and accountability for their conduct, actions and competence. The SM&CR will replace the Approved Persons Regime currently applicable to COEP. Because there is a phased-in compliance period, the first of these new rules will be effective for COEP in December 2019.

The U.K. held a referendum in June 2016 and voted to exit the European Union ("Brexit"). The U.K. government and the European Union ("EU") have negotiated a Withdrawal Agreement, which establishes the terms of the U.K.'s departure. The U.K. Parliament

is still considering the Government's proposal. The effects of Brexit on COEP's operations are currently unclear. For a discussion of the risks associated with Brexit, please refer to "Part I—Item 1A. Risk Factors" under the heading "*Changes And Instability In The Macroeconomic Environment May Adversely Affect Our Industry, Business, Results Of Operations And Financial Condition.*"

Canada

In Canada, COBNA operates as an authorized foreign bank pursuant to the Bank Act (Canada) ("Bank Act") and is permitted to conduct its credit card business in Canada through its Canadian branch, Capital One Bank (Canada Branch) ("Capital One Canada"). The primary regulator of Capital One Canada is the Office of the Superintendent of Financial Institutions. Other regulators include the Financial Consumer Agency of Canada ("FCAC"), the Office of the Privacy Commissioner of Canada, and the Financial Transactions and Reports Analysis Centre of Canada. Capital One Canada is subject to regulation under various Canadian federal laws, including the Bank Act and its regulations, the Proceeds of Crime (Money Laundering) and Terrorist Financing Act and the Personal Information Protection and Electronic Documents Act.

In August 2018, the Government of Canada announced new voluntary commitments from Visa Canada and MasterCard Canada, which will take effect when the original commitments end in 2020. As part of their new commitments, Visa and Mastercard will further reduce interchange fees for consumer credit cards by approximately 10 basis points to an annual average effective rate of 1.4% for a period of five years. Visa and Mastercard will also narrow the range of interchange rates (lowest vs. highest fee) charged to businesses.

On December 13, 2018, Bill C-86, Budget Implementation Act, 2018, No. 2 was passed by Parliament. Among other things, Bill C-86 amends the Bank Act (Canada) to consolidate and strengthen provisions that apply to banks and authorized foreign banks in the areas of consumer protection, corporate governance, business practices, public reporting, disclosure of information and access to basic banking services. Bill C-86 also amends the FCAC Act to enhance the role and powers of the FCAC by, among other things, increasing the maximum penalty for a violation of the consumer protection provisions of the Bank Act from 50,000 Canadian dollars ("CAD") for natural persons and 500,000 CAD in the case of financial institutions or a payment card network to 1 million CAD and 10 million CAD, respectively. We are continuing to analyze the impacts of Bill C-86 in order to determine its applicability and impact to our business.

EMPLOYEES

A central part of our philosophy is to attract and retain highly capable staff. We had approximately 47,600 employees, whom we refer to as "associates," as of December 31, 2018. None of our associates are covered under a collective bargaining agreement, and management considers our associate relations to be satisfactory.

ADDITIONAL INFORMATION

Technology/Systems

We leverage information and technology to achieve our business objectives and to develop and deliver products and services that satisfy our customers' needs. A key part of our strategic focus is the development and use of efficient, flexible computer and operational systems, such as cloud technology, to support complex marketing and account management strategies, the servicing of our customers, and the development of new and diversified products. We believe that the continued development and integration of these systems is an important part of our efforts to reduce costs, improve quality and security and provide faster, more flexible technology services. Consequently, we continuously review capabilities and develop or acquire systems, processes and competencies to meet our unique business requirements.

As part of our continuous efforts to review and improve our technologies, we may either develop such capabilities internally or rely on third-party outsourcers who have the ability to deliver technology that is of higher quality, lower cost, or both. We continue to rely on third-party outsourcers to help us deliver systems and operational infrastructure. These relationships include (but are not limited to): Amazon Web Services, Inc. ("AWS") for our cloud infrastructure, Total System Services, Inc. ("TSYS") for processing services for our North American and U.K. portfolios of consumer, commercial and small business credit card accounts, Fidelity Information Services ("FIS") for certain of our banking systems and International Business Machines Corporation ("IBM") for mainframe managed services.

We safeguard our customers' and our own information and technology, implement backup and recovery systems, and generally require the same of our third-party service providers. We take measures that mitigate against known attacks and use internal and external resources to scan for vulnerabilities in platforms, systems, and applications necessary for delivering Capital One products and services. For a discussion of the risks associated with our use of technology systems, please refer to "Part I—Item 1A. Risk Factors" under the headings "*We Face Risks Related To Our Operational, Technological And Organizational Infrastructure*" and "*We Could Incur Increased Costs, Reductions In Revenue, And Suffer Reputational Damage And Business Disruptions In The Event Of The Theft, Loss Or Misuse Of Information, Including As A Result Of A Cyber-Attack.*"

Intellectual Property

As part of our overall and ongoing strategy to protect and enhance our intellectual property, we rely on a variety of protections, including copyrights, trademarks, trade secrets, patents and certain restrictions on disclosure, solicitation and competition. We also undertake other measures to control access to, or distribution of, our other proprietary information. Despite these precautions, it may be possible for a third party to copy or otherwise obtain and use certain intellectual property or proprietary information without authorization. Our precautions may not prevent misappropriation or infringement of our intellectual property or proprietary information. In addition, our competitors and other third parties also file patent applications for innovations that are used in our industry. The ability of our competitors and other third parties to obtain patents may adversely affect our ability to compete and our financial results. Conversely, our ability to obtain patents may increase our competitive advantage, preserve our freedom to operate, and allow us to enter into licensing (e.g., cross-licenses) or other arrangements with third parties. There can be no assurance that we will be successful in such efforts, or that the ability of our competitors to obtain such patents may not adversely impact our financial results. For a discussion of risks associated with intellectual property, please refer to "Part I—Item 1A. Risk Factors" under the heading "*If We Are Not Able To Protect Our Intellectual Property, Our Revenue And Profitability Could Be Negatively Affected.*"

FORWARD-LOOKING STATEMENTS

From time to time, we have made and will make forward-looking statements, including those that discuss, among other things, strategies, goals, outlook or other non-historical matters; projections, revenues, income, returns, expenses, capital measures, capital allocation plans, accruals for claims in litigation and for other claims against us; earnings per share, efficiency ratio or other financial measures for us; future financial and operating results; our plans, objectives, expectations and intentions; and the assumptions that underlie these matters.

To the extent that any such information is forward-looking, it is intended to fit within the safe harbor for forward-looking information provided by the Private Securities Litigation Reform Act of 1995.

Numerous factors could cause our actual results to differ materially from those described in such forward-looking statements, including, among other things:

- general economic and business conditions in the U.S., the U.K., Canada or our local markets, including conditions affecting employment levels, interest rates, tariffs, collateral values, consumer income, credit worthiness and confidence, spending and savings that may affect consumer bankruptcies, defaults, charge-offs and deposit activity;
- an increase or decrease in credit losses, including increases due to a worsening of general economic conditions in the credit environment, and the impact of inaccurate estimates or inadequate reserves;
- compliance with financial, legal, regulatory, tax or accounting changes or actions, including the impacts of the Tax Act, the Dodd-Frank Act, and other regulations governing bank capital and liquidity standards;
- our ability to manage effectively our capital and liquidity;
- developments, changes or actions relating to any litigation, governmental investigation or regulatory enforcement action or matter involving us;
- the inability to sustain revenue and earnings growth;
- increases or decreases in interest rates and uncertainty with respect to the interest rate environment;

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- our ability to access the capital markets at attractive rates and terms to capitalize and fund our operations and future growth;
- increases or decreases in our aggregate loan balances or the number of customers and the growth rate and composition thereof, including increases or decreases resulting from factors such as shifting product mix, amount of actual marketing expenses we incur and attrition of loan balances;
- the amount and rate of deposit growth;
- changes in deposit costs;
- our ability to execute on our strategic and operational plans;
- restructuring activities or other charges;
- our response to competitive pressures;
- changes in retail distribution strategies and channels, including the emergence of new technologies and product delivery systems;
- our success in integrating acquired businesses and loan portfolios, and our ability to realize anticipated benefits from announced transactions and strategic partnerships;
- the success of our marketing efforts in attracting and retaining customers;
- changes in the reputation of, or expectations regarding, the financial services industry or us with respect to practices, products or financial condition;
- any significant disruption in our operations or in the technology platforms on which we rely, including cybersecurity, business continuity and related operational risks, as well as other security failures or breaches of our systems or those of our customers, partners, service providers or other third parties;
- our ability to maintain a compliance and technology infrastructure suitable for the nature of our business;
- our ability to develop and adapt to rapid changes in digital technology to address the needs of our customers and comply with applicable regulatory standards, including compliance with data protection and privacy standards;
- the effectiveness of our risk management strategies;
- our ability to control costs, including the amount of, and rate of growth in, our expenses as our business develops or changes or as it expands into new market areas;
- the extensive use, reliability and accuracy of the models and data we rely on in our business;
- our ability to recruit and retain talented and experienced personnel;
- the impact from, and our ability to respond to, natural disasters and other catastrophic events;
- changes in the labor and employment markets;
- fraud or misconduct by our customers, employees, business partners or third parties;
- merchants' increasing focus on the fees charged by credit card networks; and
- other risk factors identified from time to time in our public disclosures, including in the reports that we file with the SEC.

Forward-looking statements often use words such as "will," "anticipate," "target," "expect," "estimate," "intend," "plan," "goal," "believe," "forecast," "outlook" or other words of similar meaning. Any forward-looking statements made by us or on our behalf speak only as of the date they are made or as of the date indicated, and we do not undertake any obligation to update forward-looking statements as a result of new information, future events or otherwise. For additional information on factors that could materially influence forward-looking statements included in this Report, see the risk factors set forth under "Part I—Item 1A. Risk

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Factors” in this report. You should carefully consider the factors discussed above, and in our Risk Factors or other disclosure, in evaluating these forward-looking statements.

Item 1A. Risk Factors

This section highlights specific risks that could affect our business. Although we have tried to discuss all material risks of which we are aware at the time this Report has been filed, other risks may prove to be important in the future, including those that are not currently ascertainable. In addition to the factors discussed elsewhere in this Report, other factors that could cause actual results to differ materially from our forward-looking statements include:

General Economic and Market Risks

Changes And Instability In The Macroeconomic Environment May Adversely Affect Our Industry, Business, Results Of Operations And Financial Condition.

We offer a broad array of financial products and services to consumers, small businesses and commercial clients. We market our credit card products throughout the United States, Canada and the United Kingdom and offer banking and other services in many regions within the United States. A prolonged period of economic volatility, slow growth, or a significant deterioration in economic conditions, in the United States or one of these other countries, could have a material adverse effect on our financial condition and results of operations as customers default on their loans or maintain lower deposit levels or, in the case of credit card accounts, carry lower balances and reduce credit card purchase activity.

Some of the risks we may face in connection with adverse changes and instability in macroeconomic environment include the following:

- Payment patterns may change, causing increases in delinquencies and default rates, which could have a negative impact on our results of operations. In addition, changes in consumer confidence levels and behavior, including decreased consumer spending, lower demand for credit and a shift in consumer payment behavior towards avoiding late fees, finance charges and other fees, could have a negative impact on our results of operations.
- Increases in bankruptcies could cause increases in our charge-off rates, which could have a negative impact on our results of operations. Our ability to recover debt that we have previously charged-off may be limited, which could have a negative impact on our results of operations.
- The process and models we use to estimate our allowance for loan and lease losses may become less reliable if volatile economic conditions, changes in the competitive environment, significant changes in customer behavior or other unexpected variations in key inputs and assumptions cause actual losses to diverge from the projections of our models. As a result, our estimates for credit losses may become increasingly subject to management's judgment and high levels of volatility over short periods of time, which could negatively impact our results of operations. See *"There Are Risks Resulting From The Extensive Use Of Models and Data In Our Business."*
- Risks associated with financial market instability and volatility could cause a material adverse effect on our liquidity, our funding costs and profitability. For example, fluctuations in interest rates and our credit spreads could negatively impact our results of operations. Both shorter-term and longer-term interest rates remain below long-term historical averages and the yield curve has been relatively flat compared to past periods. A flat yield curve combined with low interest rates generally leads to lower revenue and reduced margins because it tends to limit our ability to increase the spread between asset yields and funding costs. Sustained periods of time with a flat yield curve coupled with low interest rates, or an inversion of the yield curve, could have a material adverse effect on our net interest margin and earnings.
- Our ability to borrow from other financial institutions or to engage in funding transactions on favorable terms or at all could be adversely affected by disruptions in the capital markets or other events, including actions by rating agencies and deteriorating investor expectations, which could limit our access to funding.

The impact of Brexit and its full effects on us are uncertain and will depend on the terms of withdrawal and the post-Brexit relationships that the U.K. implements with the EU and countries that are not a part of the EU. While Capital One does not have operations in any other EU jurisdictions, increased market volatility and global economic deterioration resulting from an uncontrolled Brexit could have a negative impact on credit conditions in the U.K. and negatively affect our business and financial condition.

Regulatory Risk

Compliance With New And Existing Laws, Regulations And Regulatory Expectations May Increase Our Costs, Reduce Our Revenue, Limit Our Ability To Pursue Business Opportunities And Increase Compliance Challenges.

Regulation and oversight of the financial services industry is expansive and complex. A wide array of banking and consumer lending laws apply to almost every aspect of our business. Failure to comply with these laws and regulations could result in financial, structural and operational penalties, including significant fines and criminal sanctions, and could result in negative publicity or damage to our reputation with regulators or the public. In addition, establishing and maintaining compliance-related systems, infrastructure and processes is expensive and can limit our ability to pursue certain business opportunities. Regulatory changes have led to higher expectations for the amount of capital and liquidity we must maintain than were required before the enactment of the Dodd-Frank Act (as discussed in more detail below under the heading “*We May Not Be Able To Maintain Adequate Capital Or Liquidity Levels, Which Could Have A Negative Impact On Our Financial Results And Our Ability To Return Capital To Our Stockholders*”) and higher operational costs, which may further increase as regulators continue to implement such reforms. Furthermore, applicable rules and regulations may affect us in an unforeseen manner, or may have a disproportionate impact on us as compared to our competitors.

We are subject to heightened regulatory oversight by the federal banking regulators to ensure that we build systems and processes that are commensurate with the nature of our business and that meet the heightened risk management and enhanced prudential standards issued by our regulators. For example, over the last several years, state and federal regulators have focused on compliance with the Bank Secrecy Act and anti-money laundering laws, data integrity and security, use of service providers, fair lending and other consumer protection issues. In July 2015, Capital One entered into a consent order with the OCC to address concerns about our anti-money laundering (“AML”) program (“AML Program”) and in October 2018, Capital One paid a civil monetary penalty assessed by the OCC relating to our AML Program. Although we are making substantial progress in taking the steps and making the improvements required by the OCC consent order, we expect heightened oversight of our AML Program will continue for the foreseeable future, and could result in additional governmental fines or penalties.

We have a large number of customer accounts in our credit card and auto lending businesses and we have made the strategic choice to originate and service subprime credit cards and auto loans which typically have higher delinquencies and charge-offs than prime customers. Accordingly, we have significant involvement with credit bureau reporting and the collection and recovery of delinquent and charged-off debt, primarily through customer communications, the filing of litigation against customers in default, the periodic sale of charged-off debt and vehicle repossession. The banking industry is subject to enhanced legal and regulatory scrutiny regarding credit bureau reporting and debt collection practices from regulators, courts and legislators. Any future changes to our business practices in these areas, including our debt collection practices, whether mandated by regulators, courts, legislators or otherwise, or any legal liabilities resulting from our business practices, including our debt collection practices, could have a material adverse impact on our financial condition.

The legislative and regulatory environment is beyond our control, may change rapidly and unpredictably and may negatively influence our revenue, costs, earnings, growth, liquidity and capital levels. In addition, some rules and regulations may be subject to litigation or other challenges that delay or modify their implementation and impact on us. Adoption of new technologies, such as distributed ledger technologies, can present unforeseen challenges in applying and relying on existing compliance systems. In the United Kingdom and Europe, continued regulatory uncertainty or changes arising from Brexit negotiations could adversely affect our U.K. operations.

Certain laws and regulations, and any interpretations and applications with respect thereto, may benefit consumers, borrowers and depositors, but not stockholders. Our success depends on our ability to maintain compliance with both existing and new laws and regulations. For a description of the material laws and regulations to which we are subject, please refer to “Part I—Item 1. Business—Supervision and Regulation.”

Credit Risk

We May Experience Increased Delinquencies, Credit Losses, Inaccurate Estimates And Inadequate Reserves.

Like other lenders, we face the risk that our customers will not repay their loans. A customer's ability and willingness to repay us can be negatively impacted by increases in their payment obligations to other lenders, whether as a result of higher debt levels or rising interest rates, by restricted availability of credit generally, or by the business performance of the obligor. We may fail to quickly identify customers that are likely to default on their payment obligations and reduce our exposure by closing credit lines and restricting authorizations, which could adversely impact our financial condition and results of operations. Our ability to manage credit risk also may be adversely affected by legal or regulatory changes (such as restrictions on collections, bankruptcy laws, minimum payment regulations and re-age guidance), competitors' actions and consumer behavior, as well as inadequate collections staffing, techniques and models.

Rising losses or leading indicators of rising losses (such as higher delinquencies, higher rates of nonperforming loans, higher bankruptcy rates, lower collateral values, elevated unemployment rates or changing market terms) may require us to increase our allowance for loan and lease losses, which may degrade our profitability if we are unable to raise revenue or reduce costs to compensate for higher losses. In particular, we face the following risks in this area:

- *Missed Payments:* Our customers may miss payments. Loan charge-offs (including from bankruptcies) are generally preceded by missed payments or other indications of worsening financial condition for our customers. Customers are more likely to miss payments during an economic downturn or prolonged periods of slow economic growth. In addition, we face the risk that consumer and commercial customer behavior may change (for example, an increase in the unwillingness or inability of customers to repay debt, which may be heightened by increasing interest rates or levels of consumer debt generally), causing a long-term rise in delinquencies and charge-offs.
- *Estimates of Inherent Losses:* The credit quality of our portfolio can have a significant impact on our earnings. We allow for and reserve against credit risks based on our assessment of credit losses inherent in our loan portfolios. This process, which is critical to our financial condition and results of operations, requires complex judgments, including forecasts of economic conditions. We may underestimate our inherent losses and fail to hold an allowance for loan and lease losses sufficient to account for these losses. Incorrect assumptions could lead to material underestimations of inherent losses and inadequate allowance for loan and lease losses. In cases where we modify a loan, if the modifications do not perform as anticipated we may be required to build additional allowance on these loans. The build or release of allowances impacts our current financial results.
- *Underwriting:* Our ability to accurately assess the creditworthiness of our customers may diminish, which could result in an increase in our credit losses and a deterioration of our returns. See *"Our Risk Management Strategies May Not Be Fully Effective In Mitigating Our Risk Exposures In All Market Environments Or Against All Types Of Risk."*
- *Business Mix:* We engage in a diverse mix of businesses with a broad range of potential credit exposure. Our business mix could change in ways that could adversely affect the credit quality of our portfolio. Because we originate a relatively greater proportion of consumer loans in our loan portfolio compared to other large bank peers and originate both prime and subprime credit card accounts and auto loans, we may experience higher delinquencies and a greater number of accounts charging off compared to other large bank peers, which could result in increased credit losses, operating costs and regulatory scrutiny.
- *Charge-off Recognition / Allowance for Loan and Lease Losses:* We account for the allowance for loan and lease losses according to accounting and regulatory guidelines and rules, including Financial Accounting Standards Board ("FASB") standards and the Federal Financial Institutions Examination Council ("FFIEC") Account Management Guidance. In June 2016, the FASB issued revised guidance for impairments on financial instruments. The guidance, which becomes effective on January 1, 2020, requires use of a CECL model that is based on expected rather than incurred losses. Adoption of the CECL model could require changes in our account management or allowance for loan and lease losses practices. We currently expect such adoption will result, on the date of adoption, in an increase to our reserves for credit losses on financial instruments with a resulting negative adjustment to retained earnings. The actual impact of CECL will depend on the characteristics of our financial instruments, economic conditions, and our economic and loss forecasts at the adoption date. Because credit cards represent a significant portion of our product mix, we could be disproportionately affected by use of the CECL model, as compared to other large banks with a different product mix. See "Note 1—Summary of Significant Accounting Policies" for additional information.

- *Collateral:* The collateral we have on secured loans could be insufficient to compensate us for loan losses. When customers default on their secured loans, we attempt to recover collateral where permissible and appropriate. However, the value of the collateral may not be sufficient to compensate us for the amount of the unpaid loan, and we may be unsuccessful in recovering the remaining balance from our customers. Decreases in real estate and asset values adversely affect the collateral value for our commercial lending activities, while the auto business is similarly exposed to collateral risks arising from the auction markets that determine used car prices. Therefore, the recovery of such property could be insufficient to compensate us for the value of these loans. Borrowers may be less likely to continue making payments on loans if the value of the property used as collateral for the loan is less than what the borrower owes, even if the borrower is still financially able to make the payments. In our auto business, business and economic conditions that negatively affect household incomes, housing prices and consumer behavior related to our businesses could decrease (i) the demand for new and used vehicles and (ii) the value of the collateral underlying our portfolio of auto loans, which could cause the number of consumers who become delinquent or default on their loans to increase.
- *Geographic and Industry Concentration:* Although our consumer lending is geographically diversified, approximately 27% of our commercial loan portfolio is concentrated in the tri-state area of New York, New Jersey and Connecticut. The regional economic conditions in the tri-state area affect the demand for our commercial products and services as well as the ability of our customers to repay their commercial loans and the value of the collateral securing these loans. An economic downturn or prolonged period of slow economic growth in, or a catastrophic event that disproportionately affects, the tri-state area could have a material adverse effect on the performance of our commercial loan portfolio and our results of operations. In addition, our Commercial Banking strategy includes an industry-specific focus. If any of the industries that we focus on experience changes, we may experience increased credit losses and our results of operations could be adversely impacted. For example, as of December 31, 2018, healthcare and healthcare-related real estate loans represented approximately 18% of our total commercial loan portfolio. If healthcare-related industries or any of the other industries that we focus on experience adverse changes, we may experience increased credit losses and our results of operations could be adversely impacted.

Capital and Liquidity Risk

We May Not Be Able To Maintain Adequate Capital Or Liquidity Levels, Which Could Have A Negative Impact On Our Financial Results And Our Ability To Return Capital To Our Stockholders.

Financial institutions are subject to capital and liquidity requirements, which have increased as a result of the Dodd-Frank Act and the United States implementation of international accords. Although United States regulators have finalized regulations for many of these requirements, they have recently issued new proposals and continued uncertainty remains as to the manner in which these requirements ultimately will apply to us. As a result, it is possible that these requirements could have a negative impact on our ability to lend, grow deposit balances or make acquisitions and limit our ability to make most capital distributions. Higher capital levels also lower our return on equity.

In April 2016, the Federal Banking Agencies issued an interagency notice of proposed rulemaking regarding the U.S. implementation of the Basel III NSFR (“Proposed NSFR”). See “Part I—Item 1. Business—Supervision and Regulation” for further details regarding the Proposed NSFR. The financial and operational impact on us of a final NSFR rule remains uncertain until a final rule is published, and there is uncertainty as to the combined impact of the existing Liquidity Coverage Ratio and any final NSFR on how we manage our business. See “Note 12—Regulatory and Capital Adequacy” and “Part I—Item 1. Business—Supervision and Regulation—Dividends, Stock Repurchases and Transfers of Funds” for additional information regarding recent developments in capital and liquidity requirements.

In April 2018, the Federal Reserve issued a proposed rule (“Stress Capital Buffer Proposed Rule”) that would implement a firm-specific “stress capital buffer” requirement and a “stress leverage buffer” requirement. See “Part I—Item 1. Business—Supervision and Regulation” for further details regarding the Stress Capital Buffer Proposed Rule. In addition, in October 2018, the United States Federal Banking Agencies proposed to provide tailored requirements for certain capital and liquidity rules for each of five categories of banking institutions (“Tailoring Proposed Rule”). As proposed, these categories would be determined by an institution’s asset size, with adjustments to a more stringent category possible if the institution meets certain other thresholds. As a bank holding company with total consolidated assets of at least \$250 billion, we would be a Category III institution under the Tailoring Proposed Rule. As such, we would no longer be subject to the Basel III Advanced Approaches and certain associated capital requirements, although we would remain subject to the countercyclical capital buffer and supplementary leverage ratio, which are currently required only for Basel III Advanced Approaches institutions. The Tailoring Proposed Rule would modify the

amount of high-quality liquid assets we must hold under the Liquidity Coverage Ratio Rule, and would modify the required stable funding amount for us under the Proposed NSFR.

The overall financial and operational impact on us of the Stress Capital Buffer Proposed Rule and the Tailoring Proposed Rule remain uncertain until final rules are published. In addition, there is uncertainty on the effect of the CECL model on our capital planning and stress testing requirements.

We consider various factors in the management of capital, including the impact of stress on our capital levels, as determined by both our internal modeling and the Federal Reserve's modeling of our capital position in supervisory stress tests and CCAR. There can be significant differences between our modeling and the Federal Reserve's estimates for a given scenario and between the capital needs suggested by our internal bank holding company scenarios relative to the supervisory scenarios. Therefore, although our estimated capital levels under stress disclosed as part of the CCAR or DFAST processes may suggest that we have substantial capacity to return capital to stockholders and remain well capitalized under stress, the Federal Reserve's modeling, our own modeling of another scenario or other factors related to our capital management process may result in a materially lower capacity to return capital to stockholders than that indicated by the projections released in the CCAR or DFAST processes. This in turn could lead to restrictions on our ability to pay dividends and engage in share repurchase transactions. See "Part I—Item 1. Business—Supervision and Regulation" for additional information.

Operational Risk

We Face Risks Related To Our Operational, Technological And Organizational Infrastructure.

Our ability to retain and attract new customers depends on our ability to develop and maintain necessary operational, technological and organizational infrastructure and to adapt to rapid technological advances involving such infrastructure. In addition, our businesses are dependent on our ability to process, record and monitor a large number of complex transactions. Digital technology, data and software development are deeply embedded into our business model and how we work.

Similar to other large corporations, we are exposed to operational risk that can manifest itself in many ways, such as errors related to failed or inadequate processes, inaccurate models, faulty or disabled computer systems, fraud by employees or persons outside of our company and exposure to external events. In addition, we are heavily dependent on the security, capability and continuous availability of the technology systems that we use to manage our internal financial and other systems, monitor risk and compliance with regulatory requirements, provide services to our customers, develop and offer new products and communicate with stakeholders.

If any of our financial, accounting or other data processing systems fail or have other significant shortcomings, our business and reputation could be materially adversely affected. We may also be subject to disruptions of our operating systems arising from events that are wholly or partially beyond our control, which may include, for example, computer viruses, electrical or telecommunications outages, design flaws in foundational components or platforms, availability and quality of vulnerability patches from key vendors, cyber-attacks (including Distributed Denial of Service ("DDOS") attacks discussed below), natural disasters, other damage to property or physical assets, or events arising from local or larger scale politics, including terrorist acts. Any of these occurrences could diminish our ability to operate our businesses, service customer accounts and protect customers' information, or result in potential liability to customers, reputational damage, regulatory intervention and customers' loss of confidence in our businesses, any of which could result in a material adverse effect.

We also rely on the business infrastructure and systems of third parties with which we do business and to whom we outsource the operation, maintenance and development of our information technology and communications systems. We have migrated substantially all, and intend to migrate all, of our core information technology systems and customer-facing applications to third-party cloud infrastructure platforms, principally AWS. If we do not complete the transition or fail to administer these new environments in a well-managed, secure and effective manner, or if AWS platforms become unavailable for any reason, we may experience unplanned service disruption or unforeseen costs which could result in material harm to our business and operating results. We must successfully implement information, financial reporting, data-protection and other controls adapted to our reliance on outside platforms and providers. In addition, AWS, or other service providers, could experience system breakdowns or failures, outages, downtime, cyber-attacks, adverse changes to financial condition, bankruptcy, or other adverse conditions, which could have a material adverse effect on our business and reputation. Thus, the substantial amount of our infrastructure that we outsource to the cloud or to other third parties may increase our risk exposure.

Any disruptions, failures or inaccuracies of our operational and technology systems and models, including those associated with improvements or modifications to such systems and models, could cause us to be unable to market and manage our products and

services, manage our risk, meet our regulatory obligations or report our financial results in a timely and accurate manner, all of which could have a negative impact on our results of operations. In addition, our ongoing investments in infrastructure, which are necessary to maintain a competitive business, integrate acquisitions and establish scalable operations, may increase our expenses. As our business develops, changes or expands, additional expenses can arise as a result of a reevaluation of business strategies, management of outsourced services, asset purchases or other acquisitions, structural reorganization, compliance with new laws or regulations, or the integration of newly acquired businesses. If we are unable to successfully manage our expenses, our financial results will be negatively affected.

We Could Incur Increased Costs, Reductions In Revenue, And Suffer Reputational Damage And Business Disruptions In The Event Of The Theft, Loss Or Misuse Of Information, Including As A Result Of A Cyber-Attack.

Our products and services involve the gathering, authentication, management, processing, storage and transmission of sensitive and confidential information regarding our customers and their accounts, our employees and third parties with which we do business. Our ability to provide such products and services, many of which are web-based, depends upon the management and safeguarding of information, software, methodologies and business secrets. To provide these products and services to, as well as communicate with, our customers, we rely on information systems and infrastructure, including digital technologies, computer and email systems, software, networks and other web-based technologies, that we and third-party service providers operate. We also have arrangements in place with third parties through which we share and receive information about their customers who are or may become our customers.

Like other financial services firms, technologies, systems, networks and devices of Capital One or our customers, employees, service providers or other third parties with whom we interact continue to be the subject of attempted unauthorized access, mishandling or misuse of information, denial-of-service attacks, computer viruses, website defacement, hacking, malware, ransomware, phishing or other forms of social engineering, and other forms of cyber-attacks designed to obtain confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage, and other events. These threats may derive from human error, fraud or malice on the part of our employees, insiders or third parties or may result from accidental technological failure. Any of these parties may also attempt to fraudulently induce employees, customers, or other third-party users of our systems to disclose sensitive information in order to gain access to our data or that of our customers or third parties with whom we interact. Further, cyber and information security risks for large financial institutions like us have generally increased in recent years in part because of the proliferation of new technologies, the use of the internet and telecommunications technologies to conduct financial transactions, and the increased sophistication and activities of organized crime, perpetrators of fraud, hackers, terrorists, activists, formal and informal instrumentalities of foreign governments and other external parties. In addition, our customers access our products and services using computers, smartphones, tablets, and other mobile devices that are beyond our security control systems.

The methods and techniques employed by perpetrators of fraud and others to attack, disable, degrade or sabotage platforms, systems and applications change frequently, are increasingly sophisticated and often are not fully recognized or understood until after they have occurred, and some techniques could occur and persist for an extended period of time before being detected. As a result, we and our third-party service providers and partners may be unable to anticipate or identify certain attack methods in order to implement effective preventative measures or mitigate or remediate the damages caused in a timely manner. We may also be unable to hire and develop talent capable of detecting, mitigating or remediating these risks. Although we believe we have a robust suite of authentication and layered information security controls, including our cyber threat analytics, data encryption and tokenization technologies, anti-malware defenses and vulnerability management program, any one or combination of these controls could fail to detect, mitigate or remediate these risks in a timely manner. We may face an increasing number of attempted cyber-attacks as we expand our mobile- and other internet-based products and services, as well as our usage of mobile and cloud technologies and as we provide more of these services to a greater number of retail clients.

A disruption or breach, including as a result of a cyber-attack, or media reports of perceived security vulnerabilities at Capital One or at third-party service providers, could result in significant legal and financial exposure, regulatory intervention, remediation costs, card reissuance, supervisory liability, damage to our reputation or loss of confidence in the security of our systems, products and services that could adversely affect our business. We and other U.S. financial services providers continue to be targeted with evolving and adaptive cybersecurity threats from sophisticated third parties. Although we have not experienced any material losses relating to cyber incidents, there can be no assurance that unauthorized access or cyber incidents will not occur or that we will not suffer such losses in the future. Unauthorized access or cyber incidents could occur more frequently and on a more significant scale. If future attacks like these are successful or if customers are unable to access their accounts online for other reasons, it could adversely impact our ability to service customer accounts or loans, complete financial transactions for our customers or otherwise

operate any of our businesses or services. In addition, a breach or attack affecting one of our third-party service providers or partners could harm our business even if we do not control the service that is attacked.

In addition, the increasing prevalence and the evolution of cyber-attacks and other efforts to breach or disrupt our systems or those of our partners, retailers or other market participants has led, and will likely continue to lead, to increased costs to us with respect to preventing, mitigating and remediating these risks, as well as any related attempted fraud. We may be required to expend significant additional resources to continue to modify or strengthen our protective security measures, investigate and remediate any vulnerabilities of our information systems and infrastructure or invest in new technology designed to mitigate security risks. For example, various retailers have continued to be victims of cyber-attacks in which customer data, including debit and credit card information, was obtained. In these situations, we incur a variety of costs, including those associated with replacing the compromised cards and remediating fraudulent transaction activity. Further, successful cyber-attacks at other large financial institutions or other market participants, whether or not we are impacted, could lead to a general loss of customer confidence in financial institutions that could negatively affect us, including harming the market perception of the effectiveness of our security measures or the financial system in general which could result in reduced use of our financial products. Though we have insurance against some cyber-risks and attacks, it may not be sufficient to offset the impact of a material loss event.

Our Exposure To Potential Data Protection And Privacy Incidents, And Our Required Compliance With Regulations Related To These Areas, May Increase Our Costs, Reduce Our Revenue And Limit Our Ability To Pursue Business Opportunities.

If our information systems or infrastructure or those of our customers, partners, service providers or other market participants experience a significant disruption or breach, it could lead, depending on the nature of the disruption or breach, to the unauthorized access to and release, gathering, monitoring, misuse, loss or destruction of personal or confidential data about our customers, employees or other third parties in our possession. Any party that obtains this personal or confidential data through a breach or disruption may use this information for ransom, to be paid by us or a third-party, as part of a fraudulent activity that is part of a broader criminal activity, or for other illicit purposes. Further, such disruption or breach could also result in unauthorized access to our proprietary information, intellectual property, software, methodologies and business secrets and in unauthorized transactions in Capital One accounts or unauthorized access to personal or confidential information maintained by those entities. For example, there has been a significant proliferation of consumer information available on the internet resulting from breaches of third-party entities, including personal information, log-in credentials and authentication data. While we were not directly involved in these third-party breach events, the stolen information can create a vulnerability for our customers if their Capital One log-in credentials are the same as or similar to the credentials that have been compromised on other sites. This vulnerability could include the risk of unauthorized account access, data loss and fraud. The use of artificial intelligence, "bots" or other automation software, can increase the velocity and efficacy of these types of attacks. A data protection incident, or media reports of perceived security vulnerabilities at Capital One or at third-party service providers, could result in significant legal and financial exposure, regulatory intervention, remediation costs, card reissuance, supervisory liability, damage to our reputation or loss of confidence in the security of our systems, products and services that could adversely affect our business.

We regularly move data across national borders to conduct our operations, and consequently are subject to a variety of continuously evolving and developing laws and regulations in the United States and abroad regarding privacy, data protection and data security, including those related to the collection, storage, handling, use, disclosure, transfer and security of personal data. Significant uncertainty exists as privacy and data protection laws may be interpreted and applied differently from country to country and may create inconsistent or conflicting requirements. For example, the GDPR, applies EU data protection law to all companies processing data of EU residents, regardless of the company's location. The law imposes strict requirements regarding the handling and retention of personal data, with severe monetary penalties for violations. Our efforts to comply with GDPR and other privacy and data protection laws entail substantial expenses, may divert resources from other initiatives and projects, and could limit the services we are able to offer. Furthermore, enforcement actions and investigations by regulatory authorities related to data security incidents and privacy violations continue to increase. The enactment of more restrictive laws, rules, regulations, or future enforcement actions or investigations could impact us through increased costs or restrictions on our business, and noncompliance could result in monetary or other penalties and significant legal liability.

There Are Risks Resulting From The Extensive Use Of Models And Data In Our Business.

We rely on quantitative models, and our ability to manage data and our ability to aggregate data in an accurate and timely manner, to assess and manage our various risk exposures and to estimate certain financial values. Models may be used in such processes as determining the pricing of various products, grading loans and extending credit, measuring interest rate and other market risks, predicting losses, assessing capital adequacy and calculating economic and regulatory capital levels, as well as to estimate the value of financial instruments and balance sheet items. Our risk reporting and management, including business decisions based on information incorporating models, depend on the effectiveness of our models and our policies, programs, processes and practices governing how data is acquired, validated, stored, protected, processed and analyzed. Any issues with the quality or effectiveness of our data aggregation and validation procedures, as well as the quality and integrity of data inputs, could result in ineffective risk management practices or inaccurate risk reporting. For example, models based on historical data sets might not be accurate predictors of future outcomes and their ability to appropriately predict future outcomes may degrade over time. While we continuously update our policies, programs, processes and practices, many of our data management and aggregation processes are manual and subject to human error or system failure. Failure to manage data effectively and to aggregate data in an accurate and timely manner may limit our ability to manage current and emerging risk, to produce accurate financial, regulatory and operational reporting as well as to manage changing business needs. If our risk management framework is ineffective, we could suffer unexpected losses which could materially adversely affect our results of operation or financial condition. Also, any information we provide to the public or to our regulators based on poorly designed or implemented models could be inaccurate or misleading. Some of the decisions that our regulators make, including those related to capital distribution to our stockholders, could be affected adversely due to the perception that the quality of the models used to generate the relevant information is insufficient.

Legal Risk

Our Businesses Are Subject To The Risk Of Increased Litigation, Government Investigations And Regulatory Enforcement.

Our businesses are subject to increased litigation, government investigations and other regulatory enforcement risks as a result of a number of factors and from various sources, including the highly regulated nature of the financial services industry, the focus of state and federal prosecutors on banks and the financial services industry and the structure of the credit card industry. Given the inherent uncertainties involved in litigation, government investigations and regulatory enforcement decisions, and the very large or indeterminate damages sought in some matters asserted against us, there can be significant uncertainty as to the ultimate liability we may incur from these kinds of matters. The finding, or even the assertion, of substantial legal liability against us could have a material adverse effect on our business and financial condition and could cause significant reputational harm to us, which could seriously harm our business.

In addition, financial institutions, such as ourselves, face significant regulatory scrutiny, which can lead to public enforcement actions. We and our subsidiaries are subject to comprehensive regulation and periodic examination by the Federal Reserve, the SEC, OCC, FDIC and CFPB. We have been subject to enforcement actions by many of these and other regulators and may continue to be involved in such actions, including governmental inquiries, investigations and enforcement proceedings, including by the OCC, Department of Justice, Financial Crimes Enforcement Network (“FinCEN”) and state Attorneys General. We expect that regulators and governmental enforcement bodies will continue taking formal enforcement actions against financial institutions in addition to addressing supervisory concerns through non-public supervisory actions or findings, which could involve restrictions on our activities, among other limitations that could adversely affect our business. In addition, a violation of law or regulation by another financial institution is likely to give rise to an investigation by regulators and other governmental agencies of the same or similar practices by us. In addition, a single event may give rise to numerous and overlapping investigations and proceedings. These and other initiatives from governmental authorities and officials may subject us to further judgments, settlements, fines or penalties, or cause us to restructure our operations and activities or to cease offering certain products or services, all of which could harm our reputation or lead to higher operational costs. Litigation, government investigations and other regulatory actions could involve restrictions on our activities, generally subject us to significant fines, increased expenses, restrictions on our activities and damage to our reputation and our brand, and could adversely affect our business, financial condition and results of operations. For additional information regarding legal and regulatory proceedings that we are subject to, see “Note 19—Commitments, Contingencies, Guarantees and Others.”

Other Business Risks

We Face Intense Competition In All Of Our Markets.

We operate in a highly competitive environment, whether in making loans, attracting deposits or in the global payments industry, and we expect competitive conditions to continue to intensify with respect to most of our products. We compete on the basis of the rates we pay on deposits and the rates and other terms we charge on the loans we originate or purchase, as well as the quality and range of our customer service, products, innovation and experience. This increasingly competitive environment is primarily a result of changes in technology, product delivery systems and regulation, as well as the emergence of new or significantly larger financial service providers, all of which may affect our customers' expectations and demands.

Some of our competitors, including new and emerging competitors in the digital and mobile payments space and other financial technology providers, are not subject to the same regulatory requirements or legislative scrutiny to which we are subject, which also could place us at a competitive disadvantage, in particular in the development of new technology platforms or the ability to rapidly innovate. We compete with many forms of payments offered by both bank and non-bank providers, including a variety of new and evolving alternative payment mechanisms, systems and products, such as aggregators and web-based and wireless payment platforms or technologies, digital or "crypto" currencies, prepaid systems and payment services targeting users of social networks, communications platforms and online gaming. If we are unable to continue to keep pace with innovation, or prohibited from or unwilling to enter emerging areas of competition, our business and results of operations could be adversely affected.

Some of our competitors are substantially larger than we are, which may give those competitors advantages, including a more diversified product and customer base, the ability to reach out to more customers and potential customers, operational efficiencies, broad-based local distribution capabilities, lower-cost funding and larger existing branch networks. Many of our competitors are also focusing on cross-selling their products and developing new products or technologies, which could affect our ability to maintain or grow existing customer relationships or require us to offer lower interest rates or fees on our lending products or higher interest rates on deposits. Price competition for loans might result in origination of fewer loans or earning less on our loans.

As of December 31, 2018, we operate as one of the largest online direct banks in the U.S. by deposits. While direct banking represents a significant opportunity to attract new customers that value greater and more flexible access to banking services at reduced costs, we face strong and increasing competition in the direct banking market. Aggressive pricing throughout the industry may adversely affect the retention of existing balances and the cost-efficient acquisition of new deposit funds and may affect our growth and profitability. Customers could also close their online accounts or reduce balances or deposits in favor of products and services offered by competitors for other reasons. These shifts, which could be rapid, could result from general dissatisfaction with our products or services, including concerns over pricing, online security or our reputation. The potential consequences of this competitive environment are exacerbated by the flexibility of direct banking and the financial and technological sophistication of our online customer base.

In our credit card business, competition for rewards customers may result in higher rewards expenses, or we may fail to attract new customers or retain existing rewards customers due to increasing competition for these consumers. We have expanded our credit card partnership business over the past several years with the additions of a number of credit card partnerships. The market for key business partners, especially in the credit card business, is very competitive, and we may not be able to grow or maintain these partner relationships. We face the risk that we could lose partner relationships, even after we have invested significant resources, time and expense into acquiring and developing the relationships. The loss of any of our key business partners could have a negative impact on our results of operations, including lower returns, excess operating expense and excess funding capacity.

We depend on our partners to effectively promote our cobrand and private label products and integrate the use of our credit cards into their retail operations. The failure by our partners to effectively promote and support our products as well as changes they may make in their business models could negatively impact card usage. In addition, if our partners do not adhere to the terms of our program agreements and standards, or otherwise diminish the value of our brand, we may suffer reputational damage and customers may be less likely to use our products.

Some of our competitors have developed, or may develop, substantially greater financial and other resources than we have, may offer richer value propositions or a wider range of programs and services than we offer or may use more effective advertising, marketing or cross-selling strategies to acquire and retain more customers, capture a greater share of spending and borrowings, attain and develop more attractive cobrand card programs and maintain greater merchant acceptance than we have. We may not be able to compete effectively against these threats or respond or adapt to changes in consumer spending habits as effectively as our competitors.

In such a competitive environment, we may lose entire accounts or may lose account balances to competing firms, or we may find it more costly to maintain our existing customer base. Customer attrition from any or all of our lending products, together with any lowering of interest rates or fees that we might implement to retain customers, could reduce our revenues and therefore our earnings. Similarly, unexpected customer attrition from our deposit products, in addition to an increase in rates or services that we may offer to retain deposits, may increase our expenses and therefore reduce our earnings.

Our Business, Financial Condition And Results Of Operations May Be Adversely Affected By Merchants' Increasing Focus On The Fees Charged By Credit Card Networks And By Regulation And Legislation Impacting Such Fees.

Credit card interchange fees are generally one of the largest components of the costs that merchants pay in connection with the acceptance of credit cards and are a meaningful source of revenue for our credit card businesses. Interchange fees are the subject of significant and intense global legal, regulatory and legislative focus, and the resulting decisions, regulations and legislation may have a material adverse impact on our overall business, financial condition and results of operations.

Regulators and legislative bodies in a number of countries are seeking to reduce credit card interchange fees through legislation, competition-related regulatory proceedings, central bank regulation and or litigation. Interchange reimbursement rates in the United States are set by credit card networks such as MasterCard and Visa. In some jurisdictions, such as Canada and certain countries in the European Union, interchange fees and related practices are subject to regulatory activity that has limited the ability of certain networks to establish default rates, including in some cases imposing caps on permissible interchange fees. We have already experienced these impacts in our international card businesses. Legislators and regulators around the world are aware of each other's approaches to the regulation of the payments industry. Consequently, a development in one country, state or region may influence regulatory approaches in another, such as our primary market, the United States.

In addition to this regulatory activity, merchants are also seeking avenues to reduce interchange fees. During the past few years, merchants and their trade groups have filed numerous lawsuits against Visa, MasterCard, American Express and their card-issuing banks, claiming that their practices toward merchants, including interchange and similar fees, violate federal antitrust laws. In 2005, a number of entities filed antitrust lawsuits against MasterCard and Visa and several member banks, including our subsidiaries and us, alleging among other things, that the defendants conspired to fix the level of interchange fees. In December 2013, the U.S. District Court for the Eastern District of New York granted final approval of the proposed class settlement. The settlement provided, among other things, that merchants would be entitled to join together to negotiate lower interchange fees. The settlement was appealed to the Second Circuit Court of Appeals, which rejected the settlement in June 2016; a revised settlement was reached in the second half of 2018, and the trial court approved the settlement in January 2019. See "Note 19—Commitments, Contingencies, Guarantees and Others" for further details.

Some major retailers may have sufficient bargaining power to independently negotiate lower interchange fees with MasterCard and Visa, which could, in turn, result in lower interchange fees for us when our cardholders undertake purchase transactions with these retailers. In 2016, some of the largest merchants individually negotiated lower interchange rates with MasterCard and/or Visa. These and other merchants also continue to lobby aggressively for caps and restrictions on interchange fees and there can be no assurance that their efforts will not be successful or that they will not in the future bring legal proceedings against us or other credit card and debit card issuers and networks.

Beyond pursuing litigation, legislation and regulation, merchants may also promote forms of payment with lower fees, such as ACH-based payments, or seek to impose surcharges at the point of sale for use of credit or debit cards. New payment systems, particularly mobile-based payment technologies, could also gain widespread adoption and lead to issuer transaction fees or the displacement of credit card accounts as a payment method.

The heightened focus by merchants and regulatory and legislative bodies on the fees charged by credit and debit card networks, and the ability of certain merchants to successfully negotiate discounts to interchange fees with MasterCard and Visa or develop alternative payment systems, could result in a reduction of interchange fees. Any resulting loss in income to us could have a material adverse effect on our business, financial condition and results of operations.

If We Are Not Able To Invest Successfully In And Introduce Digital And Other Technological Developments Across All Our Businesses, Our Financial Performance May Suffer.

Our industry is subject to rapid and significant technological changes and our ability to meet our customers' needs and expectations is key to our ability to grow revenue and earnings. We expect digital technologies to have a significant impact on banking over time. Consumers expect robust digital experiences from their financial services providers. The ability for customers to access their accounts and conduct financial transactions using digital technology, including mobile applications, is an important aspect of the

financial services industry and financial institutions are rapidly introducing new digital and other technology-driven products and services that aim to offer a better customer experience and to reduce costs. We continue to invest in digital technology designed to attract new customers, facilitate the ability of existing customers to conduct financial transactions and enhance the customer experience related to our products and services.

Our continued success depends, in part, upon our ability to address the needs of our customers by using digital technology to provide products and services that efficiently meet their expectations in a cost-effective manner. The development and launch of new digital products and services depends in large part on our capacity to invest in and build the technology platforms that can enable them. We actively invest in such technology platforms, however, we may fail to implement the correct technology, or may fail to do so in a timely manner as discussed in more detail above under the headings “*We Face Intense Competition In All Of Our Markets*” and “*We Face Risks Related To Our Operational, Technological And Organizational Infrastructure*.”

Some of our competitors are substantially larger than we are, which may allow those competitors to invest more money into their technology infrastructure and digital innovation than we do. In addition, we face intense competition from smaller companies which experience lower cost structures and different regulatory requirements and scrutiny than we do, and which may allow them to innovate more rapidly than we can. See “*We Face Intense Competition In All Of Our Markets*.” Further, our success depends on our ability to attract and retain strong digital and technology leaders, engineers and other talent, and competition for such talent is intense. If we are unable to attract and retain digital and technology talent, our ability to offer digital products and services and build the necessary technology infrastructure could be negatively affected, which could negatively impact our business and financial results. A failure to maintain or enhance our competitive position with respect to digital products and services, whether because we fail to anticipate customer expectations or because our technological developments fail to perform as desired or are not implemented in a timely or successful manner, could negatively impact our business and financial results.

We May Fail To Realize All Of The Anticipated Benefits Of Our Mergers, Acquisitions And Strategic Partnerships.

We have engaged in merger and acquisition activity and entered into strategic partnerships over the past several years and may continue to engage in such activity in the future. We continue to evaluate and anticipate engaging in, among other merger and acquisition activity, additional strategic partnerships and selected acquisitions of financial institutions and other financial assets, including credit card and other loan portfolios. There can be no assurance that we will be able to identify and secure future acquisition targets on terms and conditions that are acceptable to us, or successfully complete within the anticipated time frame and achieving the anticipated benefits of proposed mergers, acquisitions and strategic partnerships, which could impair our growth.

Any merger, acquisition or strategic partnership we undertake entails certain risks, which may materially and adversely affect our results of operations. If we experience greater than anticipated costs to integrate acquired businesses into our existing operations, or are not able to achieve the anticipated benefits of any merger, acquisition or strategic partnership, including cost savings and other synergies, our business could be negatively affected. In addition, it is possible that the ongoing integration processes could result in the loss of key employees, errors or delays in systems implementation, exposure to cybersecurity risks associated with acquired businesses, exposure to additional regulatory oversight, the disruption of our ongoing businesses or inconsistencies in standards, controls, procedures and policies that adversely affect our ability to maintain relationships with partners, clients, customers, depositors and employees or to achieve the anticipated benefits of any merger, acquisition or strategic partnership. Integration efforts also may divert management attention and resources. These integration matters may have an adverse effect on us during any transition period.

In addition, we may face the following risks in connection with any merger, acquisition or strategic partnership:

- ***New Businesses and Geographic or Other Markets:*** Our merger, acquisition or strategic partnership activity may involve our entry into new businesses and new geographic areas or other markets which present risks resulting from our relative inexperience in these new businesses or markets. These new businesses or markets may change the overall character of our consolidated portfolio of businesses and could react differently to economic and other external factors. We face the risk that we will not be successful in these new businesses or in these new markets.
- ***Identification and Assessment of Merger and Acquisition Targets and Deployment of Acquired Assets:*** We may not be able to identify or acquire suitable financial assets or institutions to supplement our organic growth through acquisitions or strategic partnerships. In addition, we may incorrectly assess the asset quality and value of, or liabilities associated with, the particular assets or institutions we acquire. Further, our ability to achieve the anticipated benefits of any merger, acquisition or strategic partnership will depend on our ability to assess the asset quality and value of the particular assets or institutions we partner with, merge with or acquire. We may be unable to profitably deploy any assets we acquire.

- *Accuracy of Assumptions:* In connection with any merger, acquisition or strategic partnership, we may make certain assumptions relating to the proposed merger, acquisition or strategic partnership that may be, or may prove to be, inaccurate, including as a result of the failure to realize the expected benefits of any merger, acquisition or strategic partnership. The inaccuracy of any assumptions we may make could result in unanticipated consequences that could have a material adverse effect on our results of operations or financial condition.
- *Target-specific Risk:* Assets and companies that we acquire, or companies that we enter into strategic partnerships with, will have their own risks that are specific to a particular asset or company. These risks include, but are not limited to, particular or specific regulatory, accounting, operational, reputational and industry risks, any of which could have a material adverse effect on our results of operations or financial condition. For example, we may face challenges associated with integrating other companies due to differences in corporate culture, compliance systems or standards of conduct. Indemnification rights, if any, may be insufficient to compensate us for any losses or damages resulting from such risks. In addition to regulatory approvals discussed below, certain of our merger, acquisition or partnership activity may require third-party consents in order for us to fully realize the anticipated benefits of any such transaction.
- *Conditions to Regulatory Approval:* Certain acquisitions may not be consummated without obtaining approvals from one or more of our regulators. We cannot be certain when or if, or on what terms and conditions, any required regulatory approvals will be granted. Consequently, we might be required to sell portions of acquired assets as a condition to receiving regulatory approval or we may not obtain regulatory approval for a proposed acquisition on acceptable terms or at all, in which case we would not be able to complete the acquisition despite the time and expenses invested in pursuing it.

Reputational Risk And Social Factors May Impact Our Results And Damage Our Brand.

Our ability to originate and maintain accounts is highly dependent upon the perceptions of consumer and commercial borrowers and deposit holders and other external perceptions of our business and compliance practices or our financial health. In addition, our brand has historically been, and we expect it to continue to be, very important to us. Maintaining and enhancing our brand will depend largely on our ability to continue to provide high-quality products and services. Adverse perceptions regarding our reputation in the consumer, commercial and funding markets could lead to difficulties in generating and maintaining accounts as well as in financing them. In particular, negative public perceptions regarding our reputation could lead to decreases in the levels of deposits that consumer and commercial customers and potential customers choose to maintain with us or significantly increase the costs of attracting and retaining customers. In addition, negative perceptions regarding certain industries, partners or clients could also prompt us to cease business activities associated with those entities.

Negative public opinion or damage to our brand could also result from actual or alleged conduct in any number of activities or circumstances, including lending practices, regulatory compliance, security breaches (including the use and protection of customer information), corporate governance and sales and marketing, and from actions taken by regulators or other persons in response to such conduct. Such conduct could fall short of our customers' and the public's heightened expectations of companies of our size with rigorous data, privacy and compliance practices, and could further harm our reputation. In addition, our cobrand and private label partners or other third parties with whom we have important relationships may take actions over which we have limited control that could negatively impact perceptions about us or the financial services industry. The proliferation of social media may increase the likelihood that negative public opinion from any of the events discussed above will impact our reputation and business.

In addition, a variety of social factors may cause changes in borrowing activity, including credit card use, payment patterns and the rate of defaults by accountholders and borrowers domestically and internationally. These social factors include changes in consumer confidence levels, the public's perception regarding the banking industry and consumer debt, including credit card use, and changing attitudes about the stigma of bankruptcy. If consumers develop or maintain negative attitudes about incurring debt, or if consumption trends decline or if we fail to maintain and enhance our brand, or we incur significant expenses in this effort, our business and financial results could be materially and negatively affected.

If We Are Not Able To Protect Our Intellectual Property, Our Revenue And Profitability Could Be Negatively Affected.

We rely on a variety of measures to protect and enhance our intellectual property, including copyrights, trademarks, trade secrets, patents and certain restrictions on disclosure, solicitation and competition. We also undertake other measures to control access to and distribution of our other proprietary information. These measures may not prevent misappropriation of our proprietary information or infringement of our intellectual property rights and a resulting loss of competitive advantage. In addition, our competitors or other third parties may file patent applications for innovations that are used in our industry or allege that our systems, processes or technologies infringe on their intellectual property rights. If our competitors or other third parties are successful in

obtaining such patents or prevail in intellectual property-related litigation against us, we could lose significant revenues, incur significant license, royalty or technology development expenses, or pay significant damages.

Our Risk Management Strategies May Not Be Fully Effective In Mitigating Our Risk Exposures In All Market Environments Or Against All Types Of Risk.

Management of risk, including market, credit, liquidity, compliance and strategic risks, requires, among other things, policies and procedures to properly record and verify a large number of transactions and events. See “MD&A—Risk Management” for further details. We have devoted significant resources to developing our risk management policies and procedures and expect to continue to do so in the future. Nonetheless, our risk management strategies may not be fully effective in identifying and mitigating our risk exposure in all market environments or against all types of risk, including risks that are unidentified or unanticipated, even if our models for assessing risk are properly designed and implemented.

Some of our methods of managing risk are based upon our use of observed historical market behavior and management’s judgment. These methods may not accurately predict future exposures, which could be significantly greater than the historical measures indicate and market conditions, particularly during a period of financial market stress can involve unprecedented dislocations. Credit risk is inherent in the financial services business and results from, among other things, extending credit to customers. Our ability to assess the creditworthiness of our customers may be impaired if the models and approaches we use to select, manage and underwrite our consumer and commercial customers become less predictive of future charge-offs due, for example, to rapid changes in the economy, including tariff rates and international trade relations.

While we employ a broad and diversified set of risk monitoring and risk mitigation techniques, those techniques and the judgments that accompany their application cannot anticipate every economic and financial outcome or the timing of such outcomes. For example, our ability to implement our risk management strategies may be hindered by adverse changes in the volatility or liquidity conditions in certain markets and as a result, may limit our ability to distribute such risks (for instance, when we seek to syndicate exposure in bridge financing transactions we have underwritten). We may, therefore, incur losses in the course of our risk management or investing activities.

Changes In Consumer Behavior And Their Adoption Of Digital Technology May Change Retail Distribution Strategies And May Adversely Impact Our Investments In Our Bank Premises And Equipment And Other Retail Distribution Assets, Leading To Increased Expenditures And Expose Us To Additional Risk.

We have significant investments in bank premises and equipment for our branch network and other branch banking assets including our banking centers and our retail work force. Advances in technology such as digital and mobile banking, in-branch self-service technologies, proximity or remote payment technologies, as well as changing customer preferences for these other methods of banking, could decrease the value of our branch network or other retail distribution assets. As a result, we may need to further change our retail distribution strategy and close, sell and/or renovate additional branches or parcels of land held for development and restructure or reduce our remaining branches and work force. These actions could lead to losses on these assets or could adversely impact the carrying value of other long-lived assets, reduce our revenues, increase our expenditures, dilute our brand and/or reduce customer demand for our products and services.

Further, to the extent that we change our retail distribution strategy and as a result expand into new business areas, we may face more competitors with more experience in the new business areas and more established relationships with relevant customers, regulators and industry participants, which could adversely affect our ability to compete. Our competitors may also be subject to less burdensome regulations. See “*We Face Intense Competition In All Our Markets.*”

Fluctuations In Market Interest Rates Or Volatility In The Capital Markets Could Adversely Affect Our Income And Expense, The Value Of Assets And Obligations, Our Regulatory Capital, Cost Of Capital Or Liquidity.

Like other financial institutions, our business is sensitive to market interest rate movement and the performance of the capital markets. Disruptions, uncertainty or volatility across the capital markets could negatively impact market liquidity and limit our access to funding required to operate and grow our business. In addition, changes in interest rates or in valuations in the debt or equity markets could directly impact us. For example, we borrow money from other institutions and depositors, which we use to make loans to customers and invest in debt securities and other earning assets. We earn interest on these loans and assets and pay interest on the money we borrow from institutions and depositors. The interest rates that we pay on the securities we have issued are also influenced by, among other things, applicable credit ratings from recognized rating agencies. A downgrade to any of these credit ratings could affect our ability to access the capital markets, increase our borrowing costs and have a negative impact on our results of operations. Increased charge-offs, rising London Interbank Offering Rate (“LIBOR”) or other applicable reference

rates and other events may cause our securitization transactions to amortize earlier than scheduled, which could accelerate our need for additional funding from other sources. Fluctuations in interest rates, including changes in the relationship between short-term rates and long-term rates and in the relationship between our funding basis rate and our lending basis rate, may have negative impacts on our net interest income and therefore our earnings.

In addition, interest rate fluctuations and competitor responses to those changes may affect the rate of customer prepayments for auto and other term loans and may affect the balances customers carry on their credit cards. For example, increases in interest rates increase debt service requirements for some of our borrowers, which may adversely affect those borrowers' ability to pay as contractually obligated. This could result in additional delinquencies or charge-offs and negatively impact our results of operations. These changes can reduce the overall yield on our earning asset portfolio. Changes in interest rates and competitor responses to these changes may also impact customer decisions to maintain balances in the deposit accounts they have with us. An inability to attract or maintain deposits could materially affect our ability to fund our business and our liquidity position. Many other financial institutions have increased their reliance on deposit funding and, as such, we expect continued competition in the deposit markets. We cannot predict how this competition will affect our costs. If we are required to offer higher interest rates to attract or maintain deposits, our funding costs will be adversely impacted. Changes in valuations in the debt and equity markets could have a negative impact on the assets we hold in our investment portfolio. Such market changes could also have a negative impact on the valuation of assets for which we provide servicing. Finally, the Basel III Capital Rule requires that certain amounts reported in Accumulated Other Comprehensive Income ("AOCI"), including unrealized gains and losses on securities designated as available for sale, be included in our regulatory capital calculations. Changes in interest rates or market valuations that result in unrealized losses on components of AOCI could therefore impact our regulatory capital ratios negatively.

On July 27, 2017, the U.K. Financial Conduct Authority announced that LIBOR would be transitioned as an interest rate benchmark by December 31, 2021, and that it will no longer compel or persuade banks to contribute to LIBOR. It is unclear whether LIBOR will continue to be viewed as an acceptable market benchmark rate, what rate or rates may develop as accepted alternatives to LIBOR, or what the effect of any such changes may have on the markets for LIBOR-based financial instruments. Uncertainty as to the nature of potential changes, alternative reference rates or other reforms may adversely affect market liquidity, the pricing of LIBOR-based instruments, and the availability and cost of associated hedging instruments and borrowings. In addition, we have loans, derivative contracts, unsecured debt, securitizations, vendor agreements and other instruments with attributes that are either directly or indirectly dependent on LIBOR. Payments under contracts referencing new reference rates may differ from those referencing LIBOR. The transition may change our market risk profile and require changes to risk and pricing models, valuation tools, product design and hedging strategies. Although we are unable to assess the ultimate impact of the transition from LIBOR given the uncertain nature of the potential changes, failure to adequately manage the transition could have a material adverse effect on our reputation, business, financial condition and results of operations.

We assess our interest rate risk by estimating the effect on our earnings, economic value and capital under various scenarios that differ based on assumptions about the direction and the magnitude of interest rate changes. We take risk mitigation actions based on those assessments. We face the risk that changes in interest rates could materially reduce our net interest income and our earnings, especially if actual conditions turn out to be materially different than those we assumed. See "MD&A—Market Risk Profile" for additional information.

Our Business Could Be Negatively Affected If We Are Unable To Attract, Retain And Motivate Skilled Employees.

Our success depends, in large part, on our ability to retain key senior leaders and to attract and retain skilled employees, particularly employees with expertise in credit, risk and digital technologies. Competition for such senior leaders and employees is intense and may increase the costs associated with attracting and retaining them. Regulation or regulatory guidance restricting executive compensation, as well as evolving investor expectations, may limit the types of compensation arrangements that we may enter into with our most senior leaders and could have a negative impact on our ability to attract, retain and motivate such leaders in support of our long-term strategy. These laws and regulations may not apply in the same manner to all financial institutions, and we therefore may face more restrictions than other institutions and companies with which we compete for talent. These laws and regulations may also hinder our ability to compete for talent with other industries. We rely upon our senior leaders not only for business success, but also to lead with integrity. To the extent our senior leaders behave in a manner that does not comport with our values, the consequences to our brand and reputation could be severe and could adversely affect our financial condition and results of operations. If we are unable to attract and retain talented senior leadership and employees with advanced technological skills, our business could be negatively affected.

We Face Risks From Unpredictable Catastrophic Events.

Despite the business contingency plans we have in place, there can be no assurance that such plans will fully mitigate all potential business continuity risks to us. The impact from natural disasters and other catastrophic events may have a negative effect on our business and infrastructure, including our information technology systems and those of third-parties that we rely on. Our ability to conduct business may be adversely affected by a disruption in the infrastructure that supports our business and the communities where we are located, which are concentrated in the Northern Virginia and New York metropolitan areas, as well as Richmond, Virginia and Plano, Texas. This may include a disruption involving physical site access, cyber incidents, terrorist activities, disease pandemics, catastrophic events, natural disasters, extreme weather events, electrical outage, environmental hazard, computer servers, communications or other services we use, our employees or third parties with whom we conduct business. In addition, if a natural disaster or other catastrophic event occurs in certain regions where our business and customers are concentrated, such as the mid-Atlantic, New York or Texas metropolitan areas, we could be disproportionately impacted as compared to our competitors. The impact of such events and other catastrophes on the overall economy may also adversely affect our financial condition and results of operations.

We Face Risks From The Use Of Or Changes To Assumptions Or Estimates In Our Financial Statements.

Pursuant to generally accepted accounting principles in the U.S. ("U.S. GAAP"), we are required to use certain assumptions and estimates in preparing our financial statements, including determining our allowance for loan and lease losses, the fair value of certain assets and liabilities, and asset impairment, among other items. In addition, the FASB, the SEC and other regulatory bodies may change the financial accounting and reporting standards, including those related to assumptions and estimates we use to prepare our financial statements, in ways that we cannot predict and that could impact our financial statements. For example, in June 2016, the FASB issued revised guidance for impairments on financial instruments. The guidance, which becomes effective on January 1, 2020, requires use of a CECL model that is based on expected rather than incurred losses. We are currently assessing the potential impact of this guidance, which may be material to our accounting for credit losses on financial instruments. If actual results differ from the assumptions or estimates underlying our financial statements or if financial accounting and reporting standards are changed, we may experience unexpected material losses. For a discussion of our use of estimates in the preparation of our consolidated financial statements, see "MD&A—Critical Accounting Policies and Estimates" and "Note 1—Summary of Significant Accounting Policies."

Limitations On Our Ability To Receive Dividends From Our Subsidiaries Could Affect Our Liquidity And Ability To Pay Dividends And Repurchase Common Stock.

We are a separate and distinct legal entity from our subsidiaries, including the Banks. Dividends to us from our direct and indirect subsidiaries, including the Banks, have represented a major source of funds for us to pay dividends on our common and preferred stock, repurchase common stock, make payments on corporate debt securities and meet other obligations. There are various federal law limitations on the extent to which the Banks can finance or otherwise supply funds to us through dividends and loans. These limitations include minimum regulatory capital requirements, federal banking law requirements concerning the payment of dividends out of net profits or surplus, Sections 23A and 23B of the Federal Reserve Act and Regulation W governing transactions between an insured depository institution and its affiliates, as well as general federal regulatory oversight to prevent unsafe or unsound practices. If our subsidiaries' earnings are not sufficient to make dividend payments to us while maintaining adequate capital levels, our liquidity may be affected and we may not be able to make dividend payments to our common or preferred stockholders, repurchase our common stock, make payments on outstanding corporate debt securities or meet other obligations, each and any of which could have a material adverse impact on our results of operations, financial position or perception of financial health.

The Soundness Of Other Financial Institutions And Other Third Parties Could Adversely Affect Us.

Our ability to engage in routine funding and other transactions could be adversely affected by the stability and actions of other financial services institutions. Financial services institutions are interrelated as a result of trading, clearing, servicing, counterparty and other relationships. We have exposure to an increasing number of financial institutions and counterparties. These counterparties include institutions that may be exposed to various risks over which we have little or no control, including European or U.S. sovereign debt that is currently or may become in the future subject to significant price pressure, rating agency downgrade or default risk.

In addition, we routinely execute transactions with counterparties in the financial services industry, including brokers and dealers, commercial banks, investment banks, mutual and hedge funds and other institutional clients, resulting in a significant credit

concentration with respect to the financial services industry overall. As a result, defaults by, or even rumors or questions about, one or more financial services institutions, or the financial services industry generally, have led to market-wide liquidity problems and could lead to losses or defaults by us or by other institutions.

Likewise, adverse developments affecting the overall strength and soundness of our competitors, the financial services industry as a whole and the general economic climate or sovereign debt could have a negative impact on perceptions about the strength and soundness of our business even if we are not subject to the same adverse developments. In addition, adverse developments with respect to third parties with whom we have important relationships also could negatively impact perceptions about us. These perceptions about us could cause our business to be negatively affected and exacerbate the other risks that we face.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate and banking real estate portfolio consists of approximately 15.9 million square feet of owned or leased office and retail space, used to support our business. Of this overall portfolio, approximately 12.8 million square feet of space is dedicated for various corporate office uses and approximately 3.1 million square feet of space is for bank branches and related offices.

Our 12.8 million square feet of corporate office space consists of approximately 5.7 million square feet of leased space and 7.1 million square feet of owned space. Our headquarters is located in McLean, Virginia, and is included in our corporate office space. We maintain corporate office space primarily in Virginia, New York, Illinois, Texas, Maryland and Delaware.

Our 3.1 million square feet of bank branch, Café and office space consists of approximately 1.7 million square feet of leased space and 1.4 million square feet of owned space, including branch locations primarily across New York, Louisiana, Texas, Maryland, Virginia, New Jersey and the District of Columbia. See “Note 8—Premises, Equipment and Lease Commitments” for information about our premises.

Item 3. Legal Proceedings

The information required by Item 103 of Regulation S-K is included in “Note 19—Commitments, Contingencies, Guarantees and Others.”

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market Information

Our common stock is listed on the NYSE and is traded under the symbol "COF." As of January 31, 2019, there were 10,541 holders of record of our common stock.

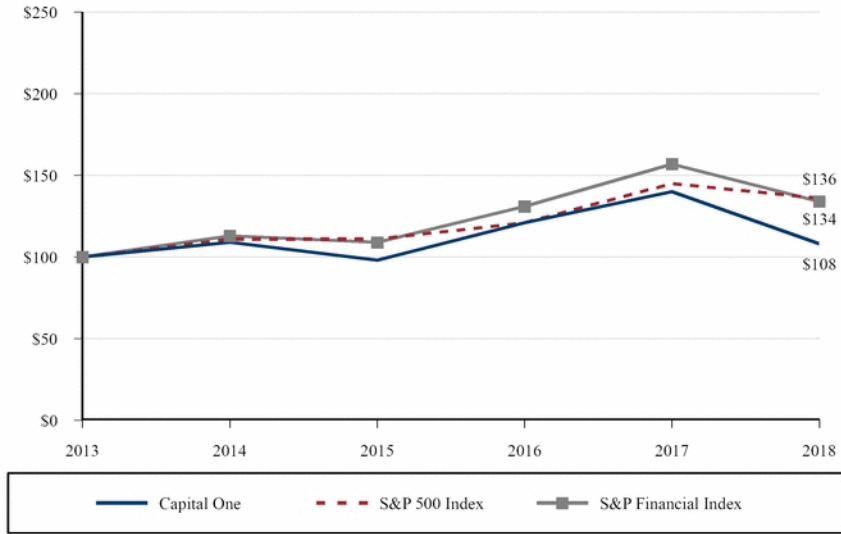
Securities Authorized for Issuance Under Equity Compensation Plans

Information relating to compensation plans under which our equity securities are authorized for issuance is presented in this Report under "Part III—Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

Common Stock Performance Graph

The following graph shows the cumulative total stockholder return on our common stock compared to an overall stock market index, the S&P Composite 500 Stock Index (“S&P 500 Index”), and a published industry index, the S&P Financial Composite Index (“S&P Financial Index”), over the five-year period commencing December 31, 2013 and ending December 31, 2018. The stock performance graph assumes that \$100 was invested in our common stock and each index and that all dividends were reinvested. The stock price performance on the graph below is not necessarily indicative of future performance.

**Comparison of 5-Year Cumulative Total Return
(Capital One, S&P 500 Index and S&P Financial Index)**



	December 31,					
	2013	2014	2015	2016	2017	2018
Capital One	\$ 100.00	\$ 109.46	\$ 97.52	\$ 120.68	\$ 140.37	\$ 108.40
S&P 500 Index	100.00	111.39	110.58	121.13	144.65	135.63
S&P Financial Index	100.00	113.10	109.17	131.16	157.42	134.34

Recent Sales of Unregistered Securities

We did not have any sales of unregistered equity securities in 2018.

Issuer Purchases of Equity Securities

The following table presents information related to repurchases of shares of our common stock for each calendar month in the fourth quarter of 2018. Commission costs are excluded from the amounts presented below.

	Number of Shares Purchased ⁽¹⁾	Average Price Paid per Share	Number of Shares Purchased as Part of Publicly Announced Plans	Maximum Amount That May Yet be Purchased Under the Plan or Program <i>(in millions)</i>
October	4,785,677	\$ 92.00	4,785,677	\$ 191
November	2,160,575	89.31	2,138,052	—
December	53,317	89.68	—	—
Total	<u>6,999,569</u>	91.15	<u>6,923,729</u>	

⁽¹⁾ Comprises mainly repurchases of common stock under the 2018 Stock Repurchase Program. There were 22,523 and 53,317 shares withheld in November and December, respectively, to cover taxes on restricted stock units whose restrictions have lapsed. For additional information including our 2018 Stock Repurchase Program, see "MD&A—Capital Management—Dividend Policy and Stock Purchases."

Item 6. Summary of Selected Financial Data

The following table presents selected consolidated financial data and performance metrics for the five-year period ended December 31, 2018. Certain prior period amounts have been recast to conform to the current period presentation. We prepare our consolidated financial statements based on U.S. GAAP. This data should be reviewed in conjunction with our audited consolidated financial statements and related notes and with the MD&A included in this Report. The historical financial information presented may not be indicative of our future performance.

Five-Year Summary of Selected Financial Data

(Dollars in millions, except per share data and as noted)	Year Ended December 31,					Change	
	2018	2017	2016	2015	2014	2018 vs. 2017	2017 vs. 2016
Income statement							
Interest income	\$ 27,176	\$ 25,222	\$ 22,891	\$ 20,459	\$ 19,397	8 %	10 %
Interest expense	4,301	2,762	2,018	1,625	1,579	56	37
Net interest income	22,875	22,460	20,873	18,834	17,818	2	8
Non-interest income	5,201	4,777	4,628	4,579	4,472	9	3
Total net revenue	28,076	27,237	25,501	23,413	22,290	3	7
Provision for credit losses	5,856	7,551	6,459	4,536	3,541	(22)	17
Non-interest expense:							
Marketing	2,174	1,670	1,811	1,744	1,561	30	(8)
Operating expenses	12,728	12,524	11,747	11,252	10,619	2	7
Total non-interest expense	14,902	14,194	13,558	12,996	12,180	5	5
Income from continuing operations before income taxes	7,318	5,492	5,484	5,881	6,569	33	—
Income tax provision	1,293	3,375	1,714	1,869	2,146	(62)	97
Income from continuing operations, net of tax	6,025	2,117	3,770	4,012	4,423	185	(44)
Income (loss) from discontinued operations, net of tax	(10)	(135)	(19)	38	5	(93)	**
Net income	6,015	1,982	3,751	4,050	4,428	**	(47)
Dividends and undistributed earnings allocated to participating securities	(40)	(13)	(24)	(20)	(18)	**	(46)
Preferred stock dividends	(265)	(265)	(214)	(158)	(67)	—	24
Net income available to common stockholders	\$ 5,710	\$ 1,704	\$ 3,513	\$ 3,872	\$ 4,343	**	(51)
Common share statistics							
Basic earnings per common share:							
Net income from continuing operations	\$ 11.92	\$ 3.80	\$ 7.00	\$ 7.08	\$ 7.70	**	(46)%
Income (loss) from discontinued operations	(0.02)	(0.28)	(0.04)	0.07	0.01	(93)%	**
Net income per basic common share	\$ 11.90	\$ 3.52	\$ 6.96	\$ 7.15	\$ 7.71	**	(49)
Diluted earnings per common share:							
Net income from continuing operations	\$ 11.84	\$ 3.76	\$ 6.93	\$ 7.00	\$ 7.58	**	(46)
Income (loss) from discontinued operations	(0.02)	(0.27)	(0.04)	0.07	0.01	(93)	**
Net income per diluted common share	\$ 11.82	\$ 3.49	\$ 6.89	\$ 7.07	\$ 7.59	**	(49)
Common shares outstanding (period-end, in millions)	467.7	485.5	480.2	527.3	553.4	(4)	1
Dividends declared and paid per common share	\$ 1.60	\$ 1.60	\$ 1.60	\$ 1.50	\$ 1.20	—	—
Tangible book value per common share (period-end) ⁽¹⁾	69.20	60.28	57.76	53.65	50.32	15	4
Common dividend payout ratio ⁽²⁾	13.45%	45.45%	22.99%	20.98%	15.56%	(32)	22
Stock price per common share at period end	\$ 75.59	\$ 99.58	\$ 87.24	\$ 72.18	\$ 82.55	(24)	14
Book value per common share at period end	110.47	100.37	98.95	89.67	81.41	10	1
Total market capitalization at period end	35,353	48,346	41,893	38,061	45,683	(27)	15
Balance sheet (average balances)							
Loans held for investment	\$ 242,118	\$ 245,565	\$ 233,272	\$ 210,745	\$ 197,925	(1)%	5 %
Interest-earning assets	332,738	322,330	307,796	282,581	267,174	3	5
Total assets	363,036	354,924	339,974	313,474	297,659	2	4
Interest-bearing deposits	221,760	213,949	198,304	185,677	181,036	4	8
Total deposits	247,117	239,882	223,714	210,989	205,675	3	7
Borrowings	53,144	53,659	56,878	45,420	38,882	(1)	(6)
Common equity	45,831	45,170	45,162	45,072	43,055	1	—
Total stockholders' equity	50,192	49,530	48,753	47,713	44,268	1	2

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	Year Ended December 31,					Change	
	2018	2017	2016	2015	2014	2018 vs. 2017	2017 vs. 2016
<i>(Dollars in millions, except per share data and as noted)</i>							
Selected performance metrics							
Purchase volume ⁽¹⁾	\$ 387,102	\$ 336,440	\$ 307,138	\$ 271,167	\$ 224,750	15 %	10 %
Total net revenue margin ⁽⁴⁾	8.44%	8.45%	8.29%	8.29%	8.34%	(1)bps	16bps
Net interest margin ⁽⁵⁾	6.87	6.97	6.78	6.66	6.67	(10)	19
Return on average assets	1.66	0.60	1.11	1.28	1.49	106	(51)
Return on average tangible assets ⁽⁶⁾	1.73	0.62	1.16	1.35	1.57	111	(54)
Return on average common equity ⁽⁷⁾	12.48	4.07	7.82	8.51	10.08	8 %	(4)%
Return on average tangible common equity ("TCE") ⁽⁸⁾	18.56	6.16	11.93	12.87	15.79	12	(6)
Equity-to-assets ratio ⁽⁹⁾	13.83	13.96	14.34	15.22	14.87	(13)bps	(38)bps
Non-interest expense as a percentage of average loans held for investment	6.15	5.78	5.81	6.17	6.15	37	(3)
Efficiency ratio ⁽¹⁰⁾	53.08	52.11	53.17	55.51	54.64	97	(106)
Operating efficiency ratio ⁽¹¹⁾	45.33	45.98	46.06	48.06	47.64	(65)	(8)
Effective income tax rate from continuing operations	17.7	61.5	31.3	31.8	32.7	(44)%	30 %
Net charge-offs	\$ 6,112	\$ 6,562	\$ 5,062	\$ 3,695	\$ 3,414	(7)	30
Net charge-off rate ⁽¹²⁾	2.52%	2.67%	2.17%	1.75%	1.72%	(15)bps	50bps

	December 31,					Change	
	2018	2017	2016	2015	2014	2018 vs. 2017	2017 vs. 2016
<i>(Dollars in millions, except as noted)</i>							
Balance sheet (period-end)							
Loans held for investment	\$ 245,899	\$ 254,473	\$ 245,586	\$ 229,851	\$ 208,316	(3)%	4 %
Interest-earning assets	341,293	334,124	321,807	302,007	277,849	2	4
Total assets	372,538	365,693	357,033	334,048	308,167	2	2
Interest-bearing deposits	226,281	217,298	211,266	191,874	180,467	4	3
Total deposits	249,764	243,702	236,768	217,721	205,548	2	3
Borrowings	58,905	60,281	60,460	59,115	48,457	(2)	—
Common equity	47,307	44,370	43,154	43,990	43,231	7	3
Total stockholders' equity	51,668	48,730	47,514	47,284	45,053	6	3
Credit quality metrics							
Allowance for loan and lease losses	\$ 7,220	\$ 7,502	\$ 6,503	\$ 5,130	\$ 4,383	(4)%	15 %
Allowance as a percentage of loans held for investment ("allowance coverage ratio")	2.94%	2.95%	2.65%	2.23%	2.10%	(1)bps	30bps
30+ day performing delinquency rate	3.62	3.23	2.93	2.69	2.62	39	30
30+ day delinquency rate	3.84	3.48	3.27	3.00	2.91	36	21
Capital ratios							
Common equity Tier 1 capital ⁽¹³⁾	11.2%	10.3%	10.1%	11.1%	12.5%	90bps	20bps
Tier 1 capital ⁽¹³⁾	12.7	11.8	11.6	12.4	13.2	90	20
Total capital ⁽¹³⁾	15.1	14.4	14.3	14.6	15.1	70	10
Tier 1 leverage ⁽¹³⁾	10.7	9.9	9.9	10.6	10.8	80	—
Tangible common equity ⁽¹⁴⁾	9.1	8.3	8.1	8.9	9.5	80	20
Supplementary leverage ⁽¹³⁾	9.0	8.4	8.6	9.2	N/A	60	(20)
Other							
Employees (period end, in thousands)	47.6	49.3	47.3	45.4	46.0	(3)%	4 %

⁽¹⁾ Tangible book value per common share is a non-GAAP measure calculated based on tangible common equity divided by common shares outstanding. See "MD&A—Table F—Reconciliation of Non-GAAP Measures" for additional information on non-GAAP measures.

⁽²⁾ Common dividend payout ratio is calculated based on dividends per common share for the period divided by basic earnings per common share for the period.

⁽³⁾ Purchase volume consists of purchase transactions, net of returns, for the period for loans both classified as held for investment and held for sale in our Credit Card business, and excludes cash advance and balance transfer transactions.

⁽⁴⁾ Total net revenue margin is calculated based on total net revenue for the period divided by average interest-earning assets for the period.

⁽⁵⁾ Net interest margin is calculated based on net interest income for the period divided by average interest-earning assets for the period.

⁽⁶⁾ Return on average tangible assets is a non-GAAP measure calculated based on income from continuing operations, net of tax, for the period divided by average tangible assets for the period. See "MD&A—Table F—Reconciliation of Non-GAAP Measures" for additional information on non-GAAP measures.

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- ⁽⁷⁾ Return on average common equity is calculated based on (i) income from continuing operations, net of tax; (ii) less dividends and undistributed earnings allocated to participating securities; (iii) less preferred stock dividends, for the period, divided by average common equity. Our calculation of return on average common equity may not be comparable to similarly-titled measures reported by other companies.
 - ⁽⁸⁾ Return on average tangible common equity is a non-GAAP measure calculated based on (i) income from continuing operations, net of tax; (ii) less dividends and undistributed earnings allocated to participating securities; (iii) less preferred stock dividends, for the period, divided by average TCE. Our calculation of return on average TCE may not be comparable to similarly-titled measures reported by other companies. See “MD&A—Table F—Reconciliation of Non-GAAP Measures” for additional information on non-GAAP measures.
 - ⁽⁹⁾ Equity-to-assets ratio is calculated based on average stockholders’ equity for the period divided by average total assets for the period.
 - ⁽¹⁰⁾ Efficiency ratio is calculated based on non-interest expense for the period divided by total net revenue for the period.
 - ⁽¹¹⁾ Operating efficiency ratio is calculated based on operating expense for the period divided by total net revenue for the period.
 - ⁽¹²⁾ Net charge-off rate is calculated by dividing net charge-offs by average loans held for investment for the period for each loan category.
 - ⁽¹³⁾ Capital ratios are calculated based on the Basel III Standardized Approach framework, subject to applicable transition provision. See “MD&A—Capital Management” for additional information.
 - ⁽¹⁴⁾ Tangible common equity ratio is a non-GAAP measure calculated based on TCE divided by tangible assets. See “MD&A—Table F—Reconciliation of Non-GAAP Measures” for the calculation of this measure and reconciliation to the comparative U.S. GAAP measure.
- ** Change is not meaningful.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A")

This discussion contains forward-looking statements that are based upon management's current expectations and are subject to significant uncertainties and changes in circumstances. Please review "Part I—Item 1. Business—Forward-Looking Statements" for more information on the forward-looking statements in this 2018 Annual Report on Form 10-K ("this Report"). Our actual results may differ materially from those included in these forward-looking statements due to a variety of factors including, but not limited to, those described in "Part I—Item 1A. Risk Factors" in this Report. Unless otherwise specified, references to notes to our consolidated financial statements refer to the notes to our consolidated financial statements as of December 31, 2018 included in this Report.

Management monitors a variety of key indicators to evaluate our business results and financial condition. The following MD&A is intended to provide the reader with an understanding of our results of operations, financial condition and liquidity by focusing on changes from year to year in certain key measures used by management to evaluate performance, such as profitability, growth and credit quality metrics. MD&A is provided as a supplement to, and should be read in conjunction with, our audited consolidated financial statements as of and for the year ended December 31, 2018 and accompanying notes. MD&A is organized in the following sections:

- Executive Summary and Business Outlook
- Consolidated Results of Operations
- Consolidated Balance Sheets Analysis
- Off-Balance Sheet Arrangements
- Business Segment Financial Performance
- Critical Accounting Policies and Estimates
- Accounting Changes and Developments
- Capital Management
- Risk Management
- Credit Risk Profile
- Liquidity Risk Profile
- Market Risk Profile
- Supplemental Tables
- Glossary and Acronyms

EXECUTIVE SUMMARY AND BUSINESS OUTLOOK

Financial Highlights

We reported net income of \$6.0 billion (\$11.82 per diluted common share) on total net revenue of \$28.1 billion for 2018. In comparison, we reported net income of \$2.0 billion (\$3.49 per diluted common share) on total net revenue of \$27.2 billion for 2017, and \$3.8 billion (\$6.89 per diluted common share) on total net revenue of \$25.5 billion for 2016.

Our common equity Tier 1 capital ratio as calculated under the Basel III Standardized Approach, including transition provisions, was 11.2% and 10.3% as of December 31, 2018 and 2017, respectively. See "MD&A—Capital Management" below for additional information.

On June 28, 2018, we announced that our Board of Directors authorized the repurchase of up to \$1.2 billion of shares of our common stock ("2018 Stock Repurchase Program") beginning in the third quarter of 2018 through the end of the second quarter of 2019. We completed the 2018 Stock Repurchase Program in the fourth quarter of 2018. See "MD&A—Capital Management—Dividend Policy and Stock Purchases" for additional information.

Below are additional highlights of our performance in 2018. These highlights are generally based on a comparison between the results of 2018 and 2017, except as otherwise noted. The changes in our financial condition and credit performance are generally based on our financial condition and credit performance as of December 31, 2018 compared to our financial condition and credit performance as of December 31, 2017.

Total Company Performance

- **Earnings:** Our net income increased by \$4.0 billion to \$6.0 billion in 2018 compared to 2017 primarily driven by:
 - lower income tax provision largely due to elevated charges associated with the impacts of the Tax Act in the fourth quarter of 2017 and a tax benefit related to a tax methodology change on rewards costs;
 - lower provision for credit losses driven by allowance releases in our domestic credit card and auto loan portfolios largely due to improvements in credit trends;
 - higher non-interest income largely due to the net gains from the sales of exited businesses including sale of our consumer home loan portfolio and an increase in net interchange fees primarily due to higher purchase volume, partially offset by an impairment charge as a result of repositioning our investment securities portfolio; and
 - higher net interest income due to growth in our domestic credit card and auto loan portfolios and higher yields on interest-earning assets as a result of higher interest rates, partially offset by higher interest expense attributable to higher interest rates.

These drivers were partially offset by higher non-interest expense largely due to increased marketing expense and a legal reserve build.

- **Loans Held for Investment:**
 - Period-end loans held for investment decreased by \$8.6 billion to \$245.9 billion as of December 31, 2018 from December 31, 2017 primarily driven by the sale of our consumer home loan portfolio, partially offset by growth in our commercial, auto and domestic credit card portfolios.
 - Average loans held for investment decreased by \$3.4 billion to \$242.1 billion in 2018 compared to 2017 primarily driven by the sale of our consumer home loan portfolio, partially offset by the growth in our domestic credit card portfolio including loans obtained in the Cabela's acquisition, and growth in our auto loan portfolio.
- **Net Charge-Off and Delinquency Metrics:** Our net charge-off rate decreased by 15 basis points to 2.52% in 2018 compared to 2017 primarily driven by elevated charge-offs in our taxi medallion portfolio in 2017 within our Commercial Banking business.

Our 30+ day delinquency rate increased by 36 basis points to 3.84% as of December 31, 2018 from December 31, 2017 primarily driven by the impact of lower loan balances from the sale of our consumer home loan portfolio and higher delinquencies in our auto loan portfolio.

- **Allowance for Loan and Lease Losses:** Our allowance for loan and lease losses decreased by \$282 million to \$7.2 billion as of December 31, 2018 from December 31, 2017 primarily driven by allowance releases in our domestic credit card and auto loan portfolios largely due to improvements in credit trends.

The allowance coverage ratio remained substantially flat at 2.94% as of December 31, 2018 as allowance releases in our domestic credit card and auto loan portfolios were offset by lower loan balances largely due to the sale of our consumer home loan portfolio.

Business Outlook

We discuss below our current expectations regarding our total company performance and the performance of each of our business segments over the near-term based on market conditions, the regulatory environment and our business strategies as of the time this Report was filed. The statements contained in this section are based on our current expectations regarding our outlook for our financial results and business strategies. Our expectations take into account, and should be read in conjunction with, our expectations regarding economic trends and analysis of our business as discussed in "Part I—Item 1. Business" and "Part II—Item 7. MD&A" in this Report. Certain statements are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from those in our forward-looking statements. Except as otherwise disclosed, forward-looking statements do not reflect:

- any change in current dividend or repurchase strategies;

- the effect of any acquisitions, divestitures or similar transactions that have not been previously disclosed; or
- any changes in laws, regulations or regulatory interpretations, in each case after the date as of which such statements are made.

See “Part I—Item 1. Business—Forward-Looking Statements” in this Report for more information on the forward-looking statements included in this Report and “Part I—Item 1A. Risk Factors” in this Report for factors that could materially influence our results.

Total Company Expectations

We expect that our full-year 2019 operating efficiency ratio, net of adjustments, will improve modestly, excluding the \$225 million one-time Walmart launch and integration expenses.

While efficiency ratio can vary in any given year, over the long term, we continue to believe that we will be able to achieve gradual efficiency improvement driven by growth and digital productivity gains.

We believe we have sufficient capital and earnings to support growth, the Walmart portfolio acquisition, the phased-in impact of adopting CECL on January 1, 2020, as well as the potential for a meaningful capital distribution in the 2019 CCAR window.

We continue to believe increases in deposit costs and deposit product mix changes will have a negative impact on our net interest margin going forward.

Business Segment Expectations

Domestic Card: In our Domestic Card business, we expect to incur approximately \$225 million in one-time expenses in 2019 to launch the new Walmart originations programs and integrate the acquired portfolio. We expect these costs will ramp up over the course of 2019.

We currently estimate the initial allowance build for the acquired Walmart portfolio will be approximately \$120 million. The actual impact will depend on the amount and characteristics of the receivables as well as economic conditions and our loss forecasts at the acquisition date.

Consumer Banking: In our Consumer Banking business, we expect further increases in average deposit interest rate as product mix shift continues. Increasing competition for deposits will also put upward pressure on deposit rates.

Over the longer-term, we continue to expect that the charge-off rate in our auto finance business will increase gradually.

CONSOLIDATED RESULTS OF OPERATIONS

The section below provides a comparative discussion of our consolidated financial performance for 2018 and 2017. We provide a discussion of our business segment results in the following section, “MD&A—Business Segment Financial Performance.” You should read this section together with our “MD&A—Executive Summary and Business Outlook,” where we discuss trends and other factors that we expect will affect our future results of operations.

Net Interest Income

Net interest income represents the difference between the interest income, including certain fees, earned on our interest-earning assets and the interest expense paid on our interest-bearing liabilities. Interest-earning assets include loans, investment securities and other interest-earning assets, while our interest-bearing liabilities include interest-bearing deposits, securitized debt obligations, senior and subordinated notes, other borrowings and other interest-bearing liabilities. Generally, we include in interest income any past due fees on loans that we deem collectible. Our net interest margin, based on our consolidated results, represents the difference between the yield on our interest-earning assets and the cost of our interest-bearing liabilities, including the notional impact of non-interest-bearing funding. We expect net interest income and our net interest margin to fluctuate based on changes in interest rates and changes in the amount and composition of our interest-earning assets and interest-bearing liabilities.

Table 1 below presents, for each major category of our interest-earning assets and interest-bearing liabilities, the average outstanding balance, interest income earned, interest expense incurred and average yield for 2018, 2017 and 2016. Nonperforming loans are included in the average loan balances below.

Table 1: Average Balances, Net Interest Income and Net Interest Margin

	Year Ended December 31,								
	2018			2017			2016		
(Dollars in millions)	Average Balance	Interest Income/Expense ⁽¹⁾	Average Yield/Rate ⁽²⁾	Average Balance	Interest Income/Expense ⁽¹⁾	Average Yield/Rate ⁽²⁾	Average Balance	Interest Income/Expense ⁽¹⁾	Average Yield/Rate ⁽²⁾
Assets:									
Interest-earning assets:									
Loans ⁽¹⁾									
Credit card	\$ 109,820	\$ 16,948	15.43 %	\$ 103,468	\$ 15,735	15.21%	\$ 96,596	\$ 14,173	14.67%
Consumer banking	65,146	4,904	7.53	74,865	4,984	6.66	71,631	4,537	6.33
Commercial banking ⁽²⁾	68,221	3,033	4.45	68,150	2,630	3.86	66,033	2,290	3.47
Other	184	(157)	(85.03)	130	39	30.00	78	203	260.26
Total loans, including loans held for sale	243,371	24,728	10.16	246,613	23,388	9.48	234,338	21,203	9.05
Investment securities	79,224	2,211	2.79	68,896	1,711	2.48	66,260	1,599	2.41
Cash equivalents and other interest-earning assets	10,143	237	2.33	6,821	123	1.80	7,198	89	1.24
Total interest-earning assets	332,738	27,176	8.17	322,330	25,222	7.82	307,796	22,891	7.44
Cash and due from banks	3,877			3,457			3,235		
Allowance for loan and lease losses	(7,404)			(7,025)			(5,675)		
Premises and equipment, net	4,163			3,931			3,671		
Other assets	29,662			32,231			30,947		
Total assets	\$ 363,036			\$ 354,924			\$ 339,974		
Liabilities and stockholders' equity:									
Interest-bearing liabilities:									
Interest-bearing deposits	\$ 221,760	\$ 2,598	1.17 %	\$ 213,949	\$ 1,602	0.75%	\$ 198,304	\$ 1,213	0.61%
Securitized debt obligations	19,014	496	2.61	18,237	327	1.79	16,576	216	1.30
Senior and subordinated notes	31,295	1,125	3.60	27,866	731	2.62	22,417	476	2.12
Other borrowings and liabilities	4,028	82	2.04	8,917	102	1.14	18,736	113	0.60
Total interest-bearing liabilities	276,097	4,301	1.56	268,969	2,762	1.03	256,033	2,018	0.79
Non-interest-bearing deposits	25,357			25,933			25,410		
Other liabilities	11,390			10,492			9,778		
Total liabilities	312,844			305,394			291,221		
Stockholders' equity	50,192			49,530			48,753		
Total liabilities and stockholders' equity	\$ 363,036			\$ 354,924			\$ 339,974		
Net interest income/spread		\$ 22,875	6.61		\$ 22,460	6.79		\$ 20,873	6.65
Impact of non-interest-bearing funding			0.26			0.18			0.13
Net interest margin			6.87 %			6.97%			6.78%

⁽¹⁾ Past due fees included in interest income totaled approximately \$1.7 billion, \$1.6 billion and \$1.5 billion in 2018, 2017 and 2016, respectively.

⁽²⁾ Some of our commercial loans generate tax-exempt income. Accordingly, we present our Commercial Banking interest income and yields on a taxable-equivalent basis, calculated using the federal statutory rate (21% for 2018 and 35% for 2017 and 2016) and state taxes where applicable, with offsetting reductions to the Other category. Taxable-equivalent adjustments included in the interest income and yield computations for our Commercial banking loans totaled approximately \$82 million, \$129 million and \$126 million in 2018, 2017 and 2016, respectively, with corresponding reductions to Other category.

⁽³⁾ Interest income and interest expense and the calculation of average yields on interest-earning assets and average rates on interest-bearing liabilities include the impact of hedge accounting. In the first quarter of 2018, we adopted Accounting Standards Update ("ASU") No. 2017-12, Derivatives and Hedging (Topic 815): *Targeted Improvements to Accounting for Hedging Activities*. As a result, interest income and interest expense amounts shown above for the year ended December 31, 2018 includes \$2 million and \$38 million, respectively, related to hedge ineffectiveness that would previously have been included in other non-interest income.

Net interest income increased by \$415 million to \$22.9 billion in 2018 compared to 2017, primarily driven by higher interest income due to growth in our domestic credit card and auto loan portfolios, and higher yields as a result of higher interest rates, partially offset by higher interest expense due to higher interest rates and the reduction in net interest income from the sale of our consumer home loan portfolio.

Net interest margin decreased by 10 basis points to 6.87% in 2018 compared to 2017, primarily driven by higher interest expense due to higher interest rates, partially offset by product mix changes and higher yields in our interest-earning assets.

Net interest income increased by \$1.6 billion to \$22.5 billion in 2017 compared to 2016. Net interest margin increased by 19 basis points to 6.97% in 2017 compared to 2016. These increases were primarily driven by:

- growth in our credit card and commercial loan portfolios;
- higher yields as a result of higher interest rates;
- partially offset by higher interest expense due to the net effect of higher interest rates, as well as growth and mix changes in our interest-bearing liabilities.

Table 2 displays the change in our net interest income between periods and the extent to which the variance is attributable to:

- changes in the volume of our interest-earning assets and interest-bearing liabilities; or
- changes in the interest rates related to these assets and liabilities.

Table 2: Rate/Volume Analysis of Net Interest Income⁽¹⁾

<i>(Dollars in millions)</i>	2018 vs. 2017			2017 vs. 2016		
	Total Variance	Volume	Rate	Total Variance	Volume	Rate
Interest income:						
Loans:						
Credit card	\$ 1,213	\$ 977	\$ 236	\$ 1,562	\$ 1,031	\$ 531
Consumer banking	(80)	(647)	567	447	210	237
Commercial banking ⁽²⁾	403	3	400	340	75	265
Other ⁽²⁾	(196)	(46)	(150)	(164)	16	(180)
Total loans, including loans held for sale	1,340	287	1,053	2,185	1,332	853
Investment securities	500	273	227	112	65	47
Cash equivalents and other interest-earning assets	114	69	45	34	(5)	39
Total interest income	1,954	629	1,325	2,331	1,392	939
Interest expense:						
Interest-bearing deposits	996	61	935	389	101	288
Securitized debt obligations	169	14	155	111	23	88
Senior and subordinated notes	394	98	296	255	128	127
Other borrowings and liabilities	(20)	(56)	36	(11)	(59)	48
Total interest expense	1,539	117	1,422	744	193	551
Net interest income	\$ 415	\$ 512	\$ (97)	\$ 1,587	\$ 1,199	\$ 388

⁽¹⁾ We calculate the change in interest income and interest expense separately for each item. The portion of interest income or interest expense attributable to both volume and rate is allocated proportionately when the calculation results in a positive value. When the portion of interest income or interest expense attributable to both volume and rate results in a negative value, the total amount is allocated to volume or rate, depending on which amount is positive.

⁽²⁾ Some of our commercial loans generate tax-exempt income. Accordingly, we present our Commercial Banking interest income and yields on a taxable- equivalent basis, calculated using the federal statutory rate (21% for 2018 and 35% for 2017 and 2016) and state taxes where applicable, with offsetting reductions to the Other category.

Non-Interest Income

Table 3 displays the components of non-interest income for 2018, 2017 and 2016. Certain prior period amounts have been recast to conform to the current period presentation.

Table 3: Non-Interest Income

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Interchange fees, net	\$ 2,823	\$ 2,573	\$ 2,452
Service charges and other customer-related fees	1,585	1,597	1,646
Net securities gains (losses)	(209)	65	(11)
Other non-interest income:			
Mortgage banking revenue	661	201	166
Treasury and other investment income	49	126	83
Other	292	215	292
Total other non-interest income	1,002	542	541
Total non-interest income	\$ 5,201	\$ 4,777	\$ 4,628

Non-interest income increased by \$424 million to \$5.2 billion in 2018 compared to 2017 primarily due to:

- the net gains from the sales of exited businesses including the sale of our consumer home loan portfolio; and
- an increase in net interchange fees primarily due to higher purchase volume.

These drivers are partially offset by an impairment charge as a result of repositioning our investment securities portfolio.

Non-interest income increased by \$149 million to \$4.8 billion in 2017 compared to 2016 primarily driven by:

- an increase in net interchange fees primarily due to higher purchase volume; and
- gains from the sale of investment securities as a result of portfolio repositioning.

Provision for Credit Losses

Our provision for credit losses in each period is driven by net charge-offs, changes to the allowance for loan and lease losses, and changes to the reserve for unfunded lending commitments. We recorded a provision for credit losses of \$5.9 billion, \$7.6 billion and \$6.5 billion in 2018, 2017 and 2016, respectively. The provision for credit losses as a percentage of net interest income was 25.6%, 33.6% and 30.9% in 2018, 2017 and 2016, respectively.

Our provision for credit losses decreased by \$1.7 billion in 2018 compared to 2017 primarily driven by allowance releases in our domestic credit card and auto loan portfolios largely due to improvements in credit trends.

Our provision for credit losses increased by \$1.1 billion in 2017 compared to 2016 primarily driven by:

- higher charge-offs in our domestic credit card loan portfolio due to growth and portfolio seasoning;
- higher charge-offs in our auto loan portfolio due to growth; and
- partially offset by lower provision in our commercial banking loan portfolio primarily driven by stabilizing industry conditions impacting our oil and gas lending portfolio compared to adverse industry conditions in the prior year.

We provide additional information on the provision for credit losses and changes in the allowance for loan and lease losses within “MD&A—Credit Risk Profile,” “Note 4—Loans” and “Note 5—Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments.” For information on the allowance methodology for each of our loan categories, see “Note 1—Summary of Significant Accounting Policies.”

Non-Interest Expense

Table 4 displays the components of non-interest expense for 2018, 2017 and 2016.

Table 4: Non-Interest Expense

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Salaries and associate benefits	\$ 5,727	\$ 5,899	\$ 5,202
Occupancy and equipment	2,118	1,939	1,944
Marketing	2,174	1,670	1,811
Professional services	1,145	1,097	1,075
Communications and data processing	1,260	1,177	1,169
Amortization of intangibles	174	245	386
Other non-interest expense:			
Bankcard, regulatory and other fee assessments	490	626	540
Collections	413	364	313
Fraud losses	364	334	331
Other	1,037	843	787
Total other non-interest expense	2,304	2,167	1,971
Total non-interest expense	\$ 14,902	\$ 14,194	\$ 13,558

Non-interest expense increased by \$708 million to \$14.9 billion in 2018 compared to 2017 primarily due to higher marketing expense and a legal reserve build.

Non-interest expense increased by \$636 million to \$14.2 billion in 2017 compared to 2016, primarily due to:

- higher operating expenses associated with loan growth, as well as continued investments in technology and infrastructure;
- restructuring activities, which primarily consisted of severance and related benefits pursuant to our ongoing benefit programs, that are the result of exiting certain business activities and locations; and
- partially offset by lower marketing expenses and lower amortization of intangibles.

Income Taxes

We recorded income tax provisions of \$1.3 billion (17.7% effective income tax rate), \$3.4 billion (61.5% effective income tax rate) and \$1.7 billion (31.3% effective income tax rate) in 2018, 2017 and 2016, respectively. In the fourth quarter of 2018, we completed our assessment of the impacts of the Tax Act and there were no material adjustments made to the previously recorded charges of \$1.8 billion in the fourth quarter 2017.

We recorded discrete tax benefits of \$318 million in 2018 primarily driven by a tax benefit of \$284 million related to a tax methodology change on rewards costs, discrete tax expenses of \$1.7 billion in 2017 primarily consisting of the charges of \$1.8 billion for the estimated impacts of the Tax Act, and discrete tax benefits of \$2 million in 2016. Our effective income tax rate, excluding the impact of discrete tax items, was 22.0%, 29.9% and 31.3% in 2018, 2017 and 2016, respectively.

The decrease in our income tax provision and effective income tax rate in 2018 compared to 2017 was primarily due to:

- discrete tax benefits in 2018 as compared to discrete tax expenses largely due to the charges of \$1.8 billion in the fourth quarter of 2017 associated with the estimated impacts of the Tax Act; and
- decrease in the federal statutory tax rate from 35% to 21% as a result of the Tax Act.

These decreases were partially offset by higher income relative to our tax credits and higher non-deductible expenses.

The increase in our income tax provision and effective income tax rate in 2017 compared to 2016 was primarily due to charges of \$1.8 billion associated with the impacts of the Tax Act, partially offset by a relative increase in the amount of tax credits and tax-exempt income.

We provide additional information on items affecting our income taxes and effective tax rate in “Note 16—Income Taxes.”

CONSOLIDATED BALANCE SHEETS ANALYSIS

Total assets increased by \$6.8 billion to \$372.5 billion as of December 31, 2018 from December 31, 2017 primarily driven by an increase in investment securities and growth in our commercial, auto and domestic credit card portfolios, partially offset by the sale of our consumer home loan portfolio.

Total liabilities increased by \$3.9 billion to \$320.9 billion as of December 31, 2018 from December 31, 2017 primarily driven by deposit growth, partially offset by lower securitized debt obligations due to maturities outpacing issuances.

Stockholders' equity increased by \$2.9 billion to \$51.7 billion as of December 31, 2018 from December 31, 2017 primarily due to our net income of \$6.0 billion in 2018, partially offset by stock repurchases and dividend payments to our stockholders.

The following is a discussion of material changes in the major components of our assets and liabilities during 2018. Period-end balance sheet amounts may vary from average balance sheet amounts due to liquidity and balance sheet management activities that are intended to support the adequacy of capital while managing our liquidity requirements, our customers and our market risk exposure in accordance with our risk appetite.

Investment Securities

Our investment securities portfolio consists primarily of the following: U.S. Treasury securities; U.S. government-sponsored enterprise or agency (“Agency”) and non-agency residential mortgage-backed securities (“RMBS”); Agency commercial mortgage-backed securities (“CMBS”); and other securities. Agency securities include Government National Mortgage Association (“Ginnie Mae”) guaranteed securities, Federal National Mortgage Association (“Fannie Mae”) and Federal Home Loan Mortgage Corporation (“Freddie Mac”) issued securities. The U.S. Treasury and Agency securities generally have high credit ratings and low credit risks, and our investments in U.S. Treasury and Agency securities represented 96% and 95% of our total investment portfolio, as of December 31, 2018 and 2017, respectively.

The fair value of our available for sale securities portfolio increased by \$8.5 billion to \$46.2 billion as of December 31, 2018 from December 31, 2017 primarily due to a one-time transfer of held to maturity securities to available for sale as a result of our adoption of ASU No. 2017-12. The fair value of our held to maturity securities portfolio increased by \$7.2 billion to \$36.6 billion as of December 31, 2018 from December 31, 2017 primarily driven by purchases in the second quarter of 2018 as we invested a portion of the proceeds from the sale of our consumer home loan portfolio into securities, partially offset by the one-time transfer to available for sale.

Table 5 presents the amortized cost, carrying value and fair value for the major categories of our investment securities portfolio as of December 31, 2018, 2017 and 2016.

Table 5: Investment Securities

	December 31,					
	2018		2017		2016	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value
<i>(Dollars in millions)</i>						
Investment securities available for sale:						
U.S. Treasury securities	\$ 6,146	\$ 6,144	\$ 5,168	\$ 5,171	\$ 5,103	\$ 5,065
RMBS:						
Agency	32,710	31,903	26,013	25,678	26,830	26,527
Non-agency	1,440	1,742	1,722	2,114	2,349	2,722
Total RMBS	34,150	33,645	27,735	27,792	29,179	29,249
Agency CMBS	4,806	4,739	3,209	3,175	5,011	4,988
Other securities ⁽¹⁾	1,626	1,622	1,516	1,517	1,440	1,435
Total investment securities available for sale	\$ 46,728	\$ 46,150	\$ 37,628	\$ 37,655	\$ 40,733	\$ 40,737
<i>(Dollars in millions)</i>						
Investment securities held to maturity:						
U.S. Treasury securities	—	—	\$ 200	\$ 200	\$ 199	\$ 199
Agency RMBS	\$ 33,061	\$ 32,977	24,980	25,395	22,125	22,573
Agency CMBS	3,710	3,642	3,804	3,842	3,388	3,424
Total investment securities held to maturity	\$ 36,771	\$ 36,619	\$ 28,984	\$ 29,437	\$ 25,712	\$ 26,196

⁽¹⁾ Includes primarily supranational bonds, foreign government bonds and other asset-backed securities.

Loans Held for Investment

Total loans held for investment consists of both unsecuritized loans and loans held in our consolidated trusts. Table 6 summarizes the carrying value of our portfolio of loans held for investment by portfolio segment, the allowance for loan and lease losses, and net loan balance as of December 31, 2018 and 2017.

Table 6: Loans Held for Investment

<i>(Dollars in millions)</i>	December 31, 2018			December 31, 2017		
	Loans	Allowance	Net Loans	Loans	Allowance	Net Loans
Credit Card	\$ 116,361	\$ 5,535	\$ 110,826	\$ 114,762	\$ 5,648	\$ 109,114
Consumer Banking	59,205	1,048	58,157	75,078	1,242	73,836
Commercial Banking	70,333	637	69,696	64,575	611	63,964
Other	—	—	—	58	1	57
Total	\$ 245,899	\$ 7,220	\$ 238,679	\$ 254,473	\$ 7,502	\$ 246,971

Loans held for investment decreased by \$8.6 billion to \$245.9 billion as of December 31, 2018 from December 31, 2017 primarily driven by the sale of our consumer home loan portfolio, partially offset by growth in our commercial, auto and domestic credit card portfolios.

We provide additional information on the composition of our loan portfolio and credit quality below in “MD&A—Credit Risk Profile,” “MD&A—Consolidated Results of Operations” and “Note 4—Loans.”

Funding Sources

Our primary source of funding comes from deposits, which provide a stable and relatively low cost of funds. In addition to deposits, we also raise funding through the issuance of securitized debt obligations and other debt. Other debt primarily consists of senior and subordinated notes, Federal Home Loan Banks (“FHLB”) advances secured by certain portions of our loan and securities portfolios, and federal funds purchased and securities loaned or sold under agreements to repurchase.

Table 7 provides the composition of our primary sources of funding as of December 31, 2018 and 2017.

Table 7: Funding Sources Composition

<i>(Dollars in millions)</i>	December 31, 2018		December 31, 2017	
	Amount	% of Total	Amount	% of Total
Deposits: ⁽¹⁾				
Consumer Banking	\$ 198,607	64%	\$ 185,842	61%
Commercial Banking	29,480	10	33,938	11
Other	21,677	7	23,922	8
Total deposits	249,764	81	243,702	80
Securitized debt obligations	18,307	6	20,010	7
Other debt	40,598	13	40,271	13
Total funding sources	\$ 308,669	100%	\$ 303,983	100%

⁽¹⁾ Includes brokered deposits of \$21.2 billion and \$25.1 billion as of December 31, 2018 and 2017, respectively.

Total deposits increased by \$6.1 billion to \$249.8 billion as of December 31, 2018 from December 31, 2017 primarily driven by strong growth in our deposit products as a result of our national banking growth strategy in our Consumer Banking business, partially offset by a decrease in deposits from Commercial Banking business due to deposit customers rotating out of deposit products and into higher-yielding investments.

Securitized debt obligations decreased by \$1.7 billion to \$18.3 billion as of December 31, 2018 from December 31, 2017, as debt maturities exceeded issuances during the year ended of 2018.

Other debt remained substantially flat at \$40.6 billion as of December 31, 2018.

We provide additional information on our funding sources in “MD&A—Liquidity Risk Profile” and in “Note 9—Deposits and Borrowings.”

Deferred Tax Assets and Liabilities

Deferred tax assets and liabilities represent decreases or increases in taxes expected to be paid in the future because of future reversals of temporary differences between the financial reporting and tax bases of assets and liabilities, as well as from net operating loss and tax credit carryforwards. Deferred tax assets are recognized subject to management’s judgment that these future deductions are more likely than not to be realized. We evaluate the recoverability of these future tax deductions by assessing the adequacy of expected taxable income from all sources, including taxable income in carryback years, reversal of taxable temporary differences, forecasted operating earnings and available tax planning strategies. These sources of income rely heavily on estimates. We use our historical experience and our short and long-range business forecasts to provide insight.

Deferred tax assets, net of deferred tax liabilities and valuation allowances, were approximately \$2.1 billion as of December 31, 2018, a decrease of \$719 million from December 31, 2017. The decrease in our net deferred tax assets was primarily driven by a tax benefit of \$284 million as a result of an approval from the Internal Revenue Service (IRS) related to a tax methodology change on rewards costs and the reversal of certain other items related to the sale of our consumer home loan portfolio.

We have recorded valuation allowances of \$245 million and \$226 million as of December 31, 2018 and 2017, respectively. We expect to fully realize the 2018 net deferred tax asset amounts in future periods. If changes in circumstances lead us to change our judgment about our ability to realize deferred tax assets in future years, we will adjust our valuation allowances in the period that our change in judgment occurs and record a corresponding increase or charge to income.

We provide additional information on income taxes in “MD&A—Consolidated Results of Operations” and in “Note 16—Income Taxes.”

OFF-BALANCE SHEET ARRANGEMENTS

In the ordinary course of business, we engage in certain activities that are not reflected on our consolidated balance sheets, generally referred to as off-balance sheet arrangements. These activities typically involve transactions with unconsolidated variable interest entities (“VIEs”) as well as other arrangements, such as letters of credit, loan commitments and guarantees, to meet the financing needs of our customers and support their ongoing operations. We provide additional information regarding these types of activities in “Note 6—Variable Interest Entities and Securitizations” and “Note 19—Commitments, Contingencies, Guarantees and Others.”

BUSINESS SEGMENT FINANCIAL PERFORMANCE

Our principal operations are organized for management reporting purposes into three major business segments, which are defined primarily based on the products and services provided or the type of customer served: Credit Card, Consumer Banking and Commercial Banking. The operations of acquired businesses have been integrated into our existing business segments. Certain activities that are not part of a segment, such as management of our corporate investment portfolio, asset/liability management by our centralized Corporate Treasury group and residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments, are included in the Other category.

The results of our individual businesses, which we report on a continuing operations basis, reflect the manner in which management evaluates performance and makes decisions about funding our operations and allocating resources. We may periodically change our business segments or reclassify business segment results based on modifications to our management reporting methodologies and changes in organizational alignment. Our business segment results are intended to reflect each segment as if it were a stand-alone business. We use an internal management and reporting process to derive our business segment results. Our internal management and reporting process employs various allocation methodologies, including funds transfer pricing, to assign certain balance sheet assets, deposits and other liabilities and their related revenue and expenses directly or indirectly attributable to each business segment. Total interest income and non-interest income are directly attributable to the segment in which they are reported. The net interest income of each segment reflects the results of our funds transfer pricing process, which is primarily based on a matched maturity method that takes into consideration market interest rates. Our funds transfer pricing process provides a funds credit for sources of funds, such as deposits generated by our Consumer Banking and Commercial Banking businesses, and a charge for the use of funds by each segment. The allocation process is unique to each business segment and acquired businesses.

We regularly assess the assumptions, methodologies and reporting classifications used for segment reporting, which may result in the implementation of refinements or changes in future periods.

We refer to the business segment results derived from our internal management accounting and reporting process as our “managed” presentation, which differs in some cases from our reported results prepared based on U.S. GAAP. There is no comprehensive authoritative body of guidance for management accounting equivalent to U.S. GAAP; therefore, the managed presentation of our business segment results may not be comparable to similar information provided by other financial services companies. In addition, our individual business segment results should not be used as a substitute for comparable results determined in accordance with U.S. GAAP.

We summarize our business segment results for the years ended December 31, 2018, 2017 and 2016 and provide a comparative discussion of these results, as well as changes in our financial condition and credit performance metrics as of December 31, 2018 compared to December 31, 2017 and 2016. We provide a reconciliation of our total business segment results to our reported consolidated results in “Note 18—Business Segments and Revenue from Contracts with Customers.”

Business Segment Financial Performance

Table 8 summarizes our business segment results, which we report based on revenue and income from continuing operations, for the years ended December 31, 2018, 2017 and 2016. We provide information on the allocation methodologies used to derive our business segment results in “Note 18—Business Segments and Revenue from Contracts with Customers.”

Table 8: Business Segment Results

	Year Ended December 31,											
	2018				2017				2016			
	Total Net Revenue ⁽¹⁾		Net Income ⁽²⁾		Total Net Revenue ⁽¹⁾		Net Income (Loss) ⁽²⁾		Total Net Revenue ⁽¹⁾		Net Income ⁽²⁾	
	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total
<i>(Dollars in millions)</i>												
Credit Card	\$ 17,687	63%	\$ 3,191	53%	\$ 16,973	62%	\$ 1,920	91%	\$ 16,015	62%	\$ 2,160	58%
Consumer Banking	7,212	26	1,800	30	7,129	26	1,090	51	6,562	26	870	23
Commercial Banking ⁽³⁾⁽⁴⁾	2,896	10	889	15	2,969	11	676	32	2,794	11	575	15
Other ⁽³⁾⁽⁴⁾	281	1	145	2	166	1	(1,569)	(74)	130	1	165	4
Total	\$ 28,076	100%	\$ 6,025	100%	\$ 27,237	100%	\$ 2,117	100%	\$ 25,501	100%	\$ 3,770	100%

⁽¹⁾ Total net revenue consists of net interest income and non-interest income.

⁽²⁾ Net income for our business segments and the Other category is based on income from continuing operations, net of tax.

⁽³⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate (21% for 2018 and 35% for 2017 and 2016) and state taxes where applicable, with offsetting reductions to the Other category.

⁽⁴⁾ In the first quarter of 2018, we made a change in how revenue is measured in our Commercial Banking business to include the tax benefits of losses on certain tax-advantaged investments. These tax benefits are included in revenue on a taxable-equivalent basis within our Commercial Banking business, with an offsetting reduction to the Other category. In addition, all revenue presented on a taxable-equivalent basis in our Commercial Banking business was impacted by the reduction of the federal tax rate set forth in the Tax Act. The net impact of the measurement change and the reduction of the federal tax rate was a decrease of \$126 million in revenue in our Commercial Banking business for the year ended December 31, 2018, with an offsetting impact to the Other category.

Credit Card Business

The primary sources of revenue for our Credit Card business are interest income, net interchange income and fees collected from customers. Expenses primarily consist of the provision for credit losses, operating costs and marketing expenses.

Our Credit Card business generated net income from continuing operations of \$3.2 billion, \$1.9 billion and \$2.2 billion in 2018, 2017 and 2016, respectively.

Table 9 summarizes the financial results of our Credit Card business and displays selected key metrics for the periods indicated.

Table 9: Credit Card Business Results

	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
<i>(Dollars in millions, except as noted)</i>					
Selected income statement data:					
Net interest income	\$ 14,167	\$ 13,648	\$ 12,635	4 %	8 %
Non-interest income	3,520	3,325	3,380	6	(2)
Total net revenue ⁽¹⁾	17,687	16,973	16,015	4	6
Provision for credit losses	4,984	6,066	4,926	(18)	23
Non-interest expense	8,542	7,916	7,703	8	3
Income from continuing operations before income taxes	4,161	2,991	3,386	39	(12)
Income tax provision	970	1,071	1,226	(9)	(13)
Income from continuing operations, net of tax	\$ 3,191	\$ 1,920	\$ 2,160	66	(11)
Selected performance metrics:					
Average loans held for investment ⁽²⁾	\$ 109,820	\$ 103,468	\$ 96,560	6	7
Average yield on loans held for investment ⁽³⁾	15.43%	15.21%	14.68 %	22bps	53bps
Total net revenue margin ⁽⁴⁾	16.11	16.40	16.59	(29)	(19)
Net charge-offs	\$ 5,069	\$ 5,054	\$ 3,953	—	28 %
Net charge-off rate	4.62%	4.88%	4.09 %	(26)bps	79bps
Purchase volume ⁽⁵⁾	\$ 387,102	\$ 336,440	\$ 307,138	15 %	10 %
<i>(Dollars in millions, except as noted)</i>					
	December 31, 2018	December 31, 2017	Change		
Selected period-end data:					
Loans held for investment ⁽²⁾	\$ 116,361	\$ 114,762	1 %		
30+ day performing delinquency rate	4.00%	3.98%	2bps		
30+ day delinquency rate	4.01	3.99	2		
Nonperforming loan rate ⁽⁶⁾	0.02	0.02	—		
Allowance for loan and lease losses	\$ 5,535	\$ 5,648	(2)%		
Allowance coverage ratio	4.76%	4.92%	(16)bps		

⁽¹⁾ We recognize billed finance charges and fee income on open-ended loans in accordance with the contractual provisions of the credit arrangements and estimate the uncollectible amount on a quarterly basis. The estimated uncollectible amount of billed finance charges and fees is reflected as a reduction in revenue and is not included in our net charge-offs. Total net revenue was reduced by \$1.3 billion, \$1.4 billion and \$1.1 billion in 2018, 2017 and 2016, respectively, for the estimated uncollectible amount of billed finance charges and fees and related losses. The finance charge and fee reserve totaled \$468 million and \$491 million as of December 31, 2018 and 2017, respectively.

⁽²⁾ Period-end loans held for investment and average loans held for investment include billed finance charges and fees, net of the estimated uncollectible amount.

⁽³⁾ Average yield on loans held for investment is calculated by dividing interest income for the period by average loans held for investment during the period. Interest income excludes various allocations including funds transfer pricing that assigns certain balance sheet assets, deposits and other liabilities and their related revenue and expenses attributable to each business segment.

⁽⁴⁾ Total net revenue margin is calculated by dividing total net revenue for the period by average loans held for investment during the period. Interest income also includes interest income on loans held for sale.

⁽⁵⁾ Purchase volume consists of purchase transactions, net of returns, for the period, and excludes cash advance and balance transfer transactions.

⁽⁶⁾ Within our credit card loan portfolio, only certain loans in our international card businesses are classified as nonperforming. See "MD&A—Nonperforming Loans and Other Nonperforming Assets" for additional information.

Key factors affecting the results of our Credit Card business for 2018 compared to 2017, and changes in financial condition and credit performance between December 31, 2018 and December 31, 2017 include the following:

- *Net Interest Income:* Net interest income increased by \$519 million to \$14.2 billion in 2018 primarily driven by loan growth in our Domestic Card business, including loans obtained in the Cabela's acquisition.

- *Non-Interest Income:* Non-interest income increased by \$195 million to \$3.5 billion in 2018 primarily driven by an increase in net interchange fees largely due to higher purchase volume.
- *Provision for Credit Losses:* The provision for credit losses decreased by \$1.1 billion to \$5.0 billion in 2018 primarily driven by allowance releases in our domestic credit card loan portfolio due to improvements in credit trends.
- *Non-Interest Expense:* Non-interest expense increased by \$626 million to \$8.5 billion in 2018, primarily driven by increased marketing expense as well as higher operating expenses associated with continued investments in technology and infrastructure.
- *Loans Held for Investment:*
 - Period-end loans held for investment increased by \$1.6 billion to \$116.4 billion as of December 31, 2018 from December 31, 2017 primarily driven by growth in our domestic credit card loan portfolio.
 - Average loans held for investment increased by \$6.4 billion to \$109.8 billion in 2018 compared to 2017 primarily due to growth in our domestic credit card loan portfolio including loans obtained in the Cabela's acquisition.
- *Net Charge-Off and Delinquency Metrics:* The net charge-off rate decreased by 26 basis points to 4.62% in 2018 compared to 2017 primarily driven by favorability realized from portfolio seasoning.

The 30+ day delinquency rate remained substantially flat at 4.01% as of December 31, 2018.

Key factors affecting the results of our Credit Card business for 2017 compared to 2016, and changes in financial condition and credit performance between December 31, 2017 and December 31, 2016 include the following:

- *Net Interest Income:* Net interest income increased by \$1.0 billion to \$13.6 billion in 2017 primarily driven by loan growth in our Domestic Card business.
- *Non-Interest Income:* Non-interest income was substantially flat at \$3.3 billion in 2017 primarily driven by:
 - lower service charges and other customer-related fees, including the impact of the exit of our legacy payment protection products in our Domestic Card business during the first quarter of 2016; and
 - the absence of a gain recorded in the second quarter of 2016 related to the exchange of our ownership interest in Visa Europe with Visa Inc. as a result of Visa Inc.'s acquisition of Visa Europe.

These drivers were largely offset by an increase in net interchange fees primarily due to higher purchase volume.

- *Provision for Credit Losses:* The provision for credit losses increased by \$1.1 billion to \$6.1 billion in 2017 primarily driven by:
 - higher charge-offs in our domestic credit card loan portfolio due to growth and portfolio seasoning; and
 - a larger allowance build in our domestic credit card loan portfolio primarily due to increasing losses from recent vintages and portfolio seasoning.
- *Non-Interest Expense:* Non-interest expense increased by \$213 million to \$7.9 billion in 2017, primarily driven by higher operating expenses associated with loan growth and continued investments in technology and infrastructure.

This driver was partially offset by:

- lower marketing expenses; and
- lower amortization of intangibles.
- *Loans Held for Investment:*
 - Period-end loans held for investment increased by \$9.2 billion to \$114.8 billion as of December 31, 2017 from December 31, 2016 primarily due to:

- growth in our domestic credit card loan portfolio, largely driven by loans obtained in the Cabela's acquisition; and
 - the impact of foreign exchange rates in our international card businesses driven by the weakening of the U.S. dollar in 2017.
- Average loans held for investment increased by \$6.9 billion to \$103.5 billion in 2017 compared to 2016 primarily due to growth in our Domestic Card business.
- *Net Charge-Off and Delinquency Metrics:* The net charge-off rate increased by 79 basis points to 4.88% in 2017 compared to 2016 primarily driven by growth and seasoning of recent domestic credit card loan originations. The 30+ day delinquency rate increased by 5 basis points to 3.99% as of December 31, 2017 from December 31, 2016 primarily due to growth and seasoning of recent domestic credit card loan originations, partially offset by loans obtained in the Cabela's acquisition.

Domestic Card Business

The Domestic Card business generated net income from continuing operations of \$3.0 billion, \$1.7 billion and \$2.1 billion in 2018, 2017 and 2016, respectively. In 2018, 2017 and 2016, Domestic Card accounted for greater than 90% of total net revenue of our Credit Card business.

Table 9.1 summarizes the financial results for Domestic Card and displays selected key metrics for the periods indicated.

Table 9.1: Domestic Card Business Results

<i>(Dollars in millions, except as noted)</i>	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
Selected income statement data:					
Net interest income	\$ 12,926	\$ 12,504	\$ 11,571	3 %	8 %
Non-interest income	3,239	3,069	3,116	6	(2)
Total net revenue ⁽¹⁾	16,165	15,573	14,687	4	6
Provision for credit losses	4,653	5,783	4,555	(20)	27
Non-interest expense	7,621	7,078	6,895	8	3
Income from continuing operations before income taxes	3,891	2,712	3,237	43	(16)
Income tax provision	907	990	1,178	(8)	(16)
Income from continuing operations, net of tax	\$ 2,984	\$ 1,722	\$ 2,059	73	(16)
Selected performance metrics:					
Average loans held for investment ⁽²⁾	\$ 100,832	\$ 94,923	\$ 88,394	6	7
Average yield on loans held for investment ⁽³⁾	15.36%	15.16%	14.62 %	20bps	54bps
Total net revenue margin ⁽⁴⁾	16.03	16.41	16.62	(38)	(21)
Net charge-offs	\$ 4,782	\$ 4,739	\$ 3,681	1 %	29 %
Net charge-off rate	4.74%	4.99%	4.16 %	(25)bps	83bps
Purchase volume ⁽⁵⁾	\$ 354,158	\$ 306,824	\$ 280,637	15 %	9 %
<i>(Dollars in millions, except as noted)</i>	December 31, 2018	December 31, 2017	Change		
Selected period-end data:					
Loans held for investment ⁽²⁾	\$ 107,350	\$ 105,293	2 %		
30+ day delinquency rate	4.04%	4.01%	3bps		
Allowance for loan and lease losses	\$ 5,144	\$ 5,273	(2)%		
Allowance coverage ratio	4.79%	5.01%	(22)bps		

⁽¹⁾ We recognize billed finance charges and fee income on open-ended loans in accordance with the contractual provisions of the credit arrangements and estimate the uncollectible amount on a quarterly basis. The estimated uncollectible amount of billed finance charges and fees is reflected as a reduction in revenue and is not included in our net charge-offs.

⁽²⁾ Period-end loans held for investment and average loans held for investment include billed finance charges and fees, net of the estimated uncollectible amount.

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- ⁽³⁾ Average yield on loans held for investment is calculated by dividing interest income for the period by average loans held for investment during the period. Interest income excludes various allocations including funds transfer pricing that assigns certain balance sheet assets, deposits and other liabilities and their related revenue and expenses attributable to each business segment.
- ⁽⁴⁾ Total net revenue margin is calculated by dividing total net revenue for the period by average loans held for investment during the period.
- ⁽⁵⁾ Purchase volume consists of purchase transactions, net of returns, for the period, and excludes cash advance and balance transfer transactions.

Because our Domestic Card business accounts for the substantial majority of our Credit Card business, the key factors driving the results are similar to the key factors affecting our total Credit Card business. Net income for our Domestic Card business increased in 2018 compared to 2017 primarily driven by:

- lower provision for credit losses;
- higher net interest income primarily driven by loan growth, including loans obtained in the Cabela's acquisition; and
- higher non-interest income driven by an increase in net interchange fees primarily due to higher purchase volume.

These drivers were partially offset by higher non-interest expense primarily driven by increased marketing expense as well as higher operating expenses associated with continued investments in technology and infrastructure.

Net income for our Domestic Card business decreased in 2017 compared to 2016 primarily driven by:

- higher provision for credit losses; and
- higher operating expenses associated with loan growth and continued investments in technology and infrastructure.

These drivers were partially offset by:

- higher net interest income primarily driven by loan growth; and
- lower marketing expenses.

Consumer Banking Business

The primary sources of revenue for our Consumer Banking business are net interest income from loans and deposits and non-interest income from service charges and customer-related fees. Expenses primarily consist of the provision for credit losses, operating costs and marketing expenses.

Our Consumer Banking business generated net income from continuing operations of \$1.8 billion, \$1.1 billion and \$870 million in 2018, 2017 and 2016, respectively.

Table 10 summarizes the financial results of our Consumer Banking business and displays selected key metrics for the periods indicated.

Table 10: Consumer Banking Business Results

	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
<i>(Dollars in millions, except as noted)</i>					
Selected income statement data:					
Net interest income	\$ 6,549	\$ 6,380	\$ 5,829	3 %	9 %
Non-interest income	663	749	733	(11)	2
Total net revenue	7,212	7,129	6,562	1	9
Provision for credit losses	838	1,180	1,055	(29)	12
Non-interest expense	4,027	4,233	4,139	(5)	2
Income from continuing operations before income taxes	2,347	1,716	1,368	37	25
Income tax provision	547	626	498	(13)	26
Income from continuing operations, net of tax	\$ 1,800	\$ 1,090	\$ 870	65	25
Selected performance metrics:					
Average loans held for investment:					
Auto	\$ 55,610	\$ 51,477	\$ 44,521	8	16
Home loan ⁽¹⁾	6,266	19,681	23,358	(68)	(16)
Retail banking	3,075	3,463	3,543	(11)	(2)
Total consumer banking	\$ 64,951	\$ 74,621	\$ 71,422	(13)	4
Average yield on loans held for investment ⁽²⁾	7.54%	6.67%	6.34%	87bps	33bps
Average deposits	\$ 193,053	\$ 185,201	\$ 177,129	4 %	5 %
Average deposits interest rate	0.95%	0.62%	0.56%	33bps	6bps
Net charge-offs	\$ 981	\$ 1,038	\$ 820	(5)%	27 %
Net charge-off rate	1.51%	1.39%	1.15 %	12bps	24bps
Auto loan originations	\$ 26,276	\$ 27,737	\$ 25,719	(5)%	8%

	December 31, 2018	December 31, 2017	Change
<i>(Dollars in millions, except as noted)</i>			
Selected period-end data:			
Loans held for investment:			
Auto	\$ 56,341	\$ 53,991	4 %
Home loan ⁽¹⁾	—	17,633	**
Retail banking	2,864	3,454	(17)
Total consumer banking	\$ 59,205	\$ 75,078	(21)
30+ day performing delinquency rate	6.67%	4.76%	191bps
30+ day delinquency rate	7.36	5.34	202
Nonperforming loan rate	0.81	0.78	3
Nonperforming asset rate ⁽³⁾	0.90	0.91	(1)
Allowance for loan and lease losses	\$ 1,048	\$ 1,242	(16)%
Allowance coverage ratio	1.77%	1.65%	12bps
Deposits	\$ 198,607	\$ 185,842	7 %

⁽¹⁾ In 2018, we sold all of our consumer home loan portfolio and the related servicing. The impact of this sale is reflected in the Other category for the year ended 2018.

⁽²⁾ Average yield on loans held for investment is calculated by dividing interest income for the period by average loans held for investment during the period. Interest income excludes various allocations including funds transfer pricing that assigns certain balance sheet assets, deposits and other liabilities and their related revenue and expenses attributable to each business segment.

⁽³⁾ Nonperforming assets consist of nonperforming loans, real estate owned ("REO") and other foreclosed assets. The total nonperforming asset rate is calculated based on total nonperforming assets divided by the combined period-end total loans held for investment, REO and other foreclosed assets.

** Not meaningful.

Key factors affecting the results of our Consumer Banking business for 2018 compared to 2017, and changes in financial condition and credit performance between December 31, 2018 and December 31, 2017 include the following:

- *Net Interest Income:* Net interest income increased by \$169 million to \$6.5 billion in 2018 primarily driven by growth in our auto loan portfolio and higher deposit volumes and margins in our retail banking business, partially offset by the reduction in net interest income from the sale of our consumer home loan portfolio.

Consumer Banking loan yield increased by 87 basis points to 7.54% in 2018 compared to 2017. The increase was primarily driven by:

- changes in product mix as a result of the sale of our consumer home loan portfolio; and
 - higher yields as a result of higher interest rates.
- *Non-Interest Income:* Non-interest income decreased by \$86 million to \$663 million in 2018 primarily driven by:
 - lower mortgage banking revenue as a result of our decision to cease new originations of home loan lending products in the fourth quarter of 2017; and
 - a mortgage representation and warranty reserve release in the first quarter of 2017.
 - *Provision for Credit Losses:* The provision for credit losses decreased by \$342 million to \$838 million in 2018 primarily driven by allowance releases in our auto loan portfolio largely due to improvements in credit trends.
 - *Non-Interest Expense:* Non-interest expense decreased by \$206 million to \$4.0 billion in 2018 primarily driven by:
 - lower operating expenses due to our decision to cease new originations of home loan lending products in the fourth quarter of 2017 and the sale of our consumer home loan portfolio in 2018; and
 - operating efficiencies in our retail banking business.

These drivers were largely offset by higher operating expenses driven by growth in our auto loan portfolio.

- *Loans Held for Investment:* Period-end loans held for investment decreased by \$15.9 billion to \$59.2 billion as of December 31, 2018 from December 31, 2017, and average loans held for investment decreased by \$9.7 billion to \$65.0 billion in 2018 compared to 2017. These decreases were primarily driven by the sale of our consumer home loan portfolio, partially offset by growth in our auto loan portfolio.
- *Deposits:* Period-end deposits increased by \$12.8 billion to \$198.6 billion as of December 31, 2018 from December 31, 2017 driven by strong growth in our deposit products as a result of our national banking growth strategy.
- *Net Charge-Off and Delinquency Metrics:* The net charge-off rate increased by 12 basis points to 1.51% in 2018 compared to 2017. This increase was primarily driven by lower loan balances due to the sale of our consumer home loan portfolio, partially offset by improvements in credit trends in our auto loan portfolio.

The 30+ day delinquency rate increased by 202 basis points to 7.36% as of December 31, 2018 from December 31, 2017 primarily driven by lower loan balances due to the sale of our consumer home loan portfolio and higher auto delinquency inventories, partially offset by growth in our auto loan portfolio.

Key factors affecting the results of our Consumer Banking business for 2017 compared to 2016, and changes in financial condition and credit performance between December 31, 2017 and December 31, 2016 include the following:

- *Net Interest Income:* Net interest income increased by \$551 million to \$6.4 billion in 2017 primarily driven by growth in our auto loan portfolio and higher deposit volumes and margins in our retail banking business.

Consumer Banking loan yield increased by 33 basis points to 6.7% in 2017 compared to 2016. The increase was primarily driven by changes in the product mix in Consumer Banking as a result of growth in our auto loan portfolio and run-off of our acquired home loan portfolio.

- *Non-Interest Income:* Non-interest income was substantially flat at \$749 million in 2017 as a mortgage representation and warranty reserve release in the first quarter of 2017 had a similar impact as the customer rewards reserve release within our retail banking business in the first quarter of 2016 related to the discontinuation of certain debit card and deposit products.
- *Provision for Credit Losses:* The provision for credit losses increased by \$125 million to \$1.2 billion in 2017 primarily driven by higher losses in our auto loan portfolio due to growth.
- *Non-Interest Expense:* Non-interest expense increased by \$94 million to \$4.2 billion in 2017 primarily due to higher operating expenses driven by growth in our auto loan portfolio and continued investment in technology and infrastructure, partially offset by operating efficiencies.
- *Loans Held for Investment:* Period-end loans held for investment increased by \$2.0 billion to \$75.1 billion as of December 31, 2017 from December 31, 2016, and average loans held for investment increased by \$3.2 billion to \$74.6 billion in 2017 compared to 2016. These increases were due to growth in our auto loan portfolio, partially offset by run-off of our acquired home loan portfolio.
- *Deposits:* Period-end deposits increased by \$3.9 billion to \$185.8 billion as of December 31, 2017 from December 31, 2016.
- *Net Charge-Off and Delinquency Metrics:* The net charge-off rate increased by 24 basis points to 1.39% in 2017 compared to 2016. This increase was primarily driven by:
 - higher losses in our auto loan portfolio due to changes in our charge-off practices for certain bankrupt accounts and growth; and
 - a greater portion of auto loans in our total consumer banking loan portfolio, which generally have higher charge-off rates than other products within this portfolio.

The 30+ day delinquency rate increased by 67 basis points to 5.34% as of December 31, 2017 from December 31, 2016 primarily attributable to higher auto delinquency inventories.

Commercial Banking Business

The primary sources of revenue for our Commercial Banking business are net interest income from loans and deposits and non-interest income from customer fees and other products and services. Because our Commercial Banking business has loans and investments that generate tax-exempt income, tax credits or other tax benefits, we present the revenues on a taxable-equivalent basis. Expenses primarily consist of the provision for credit losses, operating costs and marketing expenses.

Our Commercial Banking business generated net income from continuing operations of \$889 million, \$676 million and \$575 million in 2018, 2017 and 2016, respectively.

Table 11 summarizes the financial results of our Commercial Banking business and displays selected key metrics for the periods indicated.

Table 11: Commercial Banking Business Results

<i>(Dollars in millions, except as noted)</i>	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
Selected income statement data:					
Net interest income	\$ 2,152	\$ 2,261	\$ 2,216	(5)%	2%
Non-interest income	744	708	578	5	22
Total net revenue ⁽¹⁾⁽²⁾	2,896	2,969	2,794	(2)	6
Provision for credit losses ⁽³⁾	83	301	483	(72)	(38)
Non-interest expense	1,654	1,603	1,407	3	14
Income from continuing operations before income taxes	1,159	1,065	904	9	18
Income tax provision	270	389	329	(31)	18
Income from continuing operations, net of tax	\$ 889	\$ 676	\$ 575	32	18
Selected performance metrics:					
Average loans held for investment:					
Commercial and multifamily real estate	\$ 27,771	\$ 27,370	\$ 25,821	1	6
Commercial and industrial	39,188	39,606	38,852	(1)	2
Total commercial lending	66,959	66,976	64,673	—	4
Small-ticket commercial real estate	371	442	548	(16)	(19)
Total commercial banking	\$ 67,330	\$ 67,418	\$ 65,221	—	3
Average yield on loans held for investment ⁽¹⁾⁽⁴⁾	4.46%	3.87%	3.47%	59bps	40bps
Average deposits	\$ 32,175	\$ 33,947	\$ 33,841	(5)%	—
Average deposits interest rate	0.72%	0.39%	0.28%	33bps	11bps
Net charge-offs	\$ 56	\$ 465	\$ 292	(88)%	59%
Net charge-off rate	0.08%	0.69%	0.45%	(61)bps	24bps

<i>(Dollars in millions, except as noted)</i>	December 31, 2018	December 31, 2017	Change
Selected period-end data:			
Loans held for investment:			
Commercial and multifamily real estate	\$ 28,899	\$ 26,150	11%
Commercial and industrial	41,091	38,025	8
Total commercial lending	69,990	64,175	9
Small-ticket commercial real estate	343	400	(14)
Total commercial banking	\$ 70,333	\$ 64,575	9
Nonperforming loan rate	0.44%	0.44%	—
Nonperforming asset rate ⁽⁵⁾	0.45	0.52	(7)bps
Allowance for loan and lease losses ⁽³⁾	\$ 637	\$ 611	4%
Allowance coverage ratio	0.91%	0.95%	(4)bps
Deposits	\$ 29,480	\$ 33,938	(13)%
Loans serviced for others	32,588	27,764	17

⁽¹⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate (21% for 2018 and 35% for 2017 and 2016) and state taxes where applicable, with offsetting reductions to the Other category.

⁽²⁾ In the first quarter of 2018, we made a change in how revenue is measured in our Commercial Banking business to include the tax benefits of losses on certain tax-advantaged investments. These tax benefits are included in revenue on a taxable-equivalent basis within our Commercial Banking business, with an offsetting reduction to the Other category. In addition, all revenue presented on a taxable-equivalent basis in our Commercial Banking business was impacted by the reduction of the federal tax rate set forth in the Tax Act. The net impact of the measurement change and the reduction of the federal tax rate

was a decrease of \$126 million in revenue in our Commercial Banking business for the year ended December 31, 2018, with an offsetting impact to the Other category.

- ⁽³⁾ The provision for losses on unfunded lending commitments is included in the provision for credit losses in our consolidated statements of income and the related reserve for unfunded lending commitments is included in other liabilities on our consolidated balance sheets. Our reserve for unfunded lending commitments totaled \$118 million, \$117 million and \$129 million as of December 31, 2018, 2017 and 2016, respectively.
- ⁽⁴⁾ Average yield on loans held for investment is calculated by dividing interest income for the period by average loans held for investment during the period. Interest income excludes various allocations including funds transfer pricing that assigns certain balance sheet assets, deposits and other liabilities and their related revenue and expenses attributable to each business segment.
- ⁽⁵⁾ Nonperforming assets consist of nonperforming loans, REO and other foreclosed assets. The total nonperforming asset rate is calculated based on total nonperforming assets divided by the combined period-end total loans held for investment, REO and other foreclosed assets.

Key factors affecting the results of our Commercial Banking business for 2018 compared to 2017, and changes in financial condition and credit performance between December 31, 2018 and December 31, 2017 include the following:

- *Net Interest Income:* Net interest income decreased by \$109 million to \$2.2 billion in 2018 primarily driven by the impact of the reduction of the federal tax rate set forth in the Tax Act on revenue presented on a taxable-equivalent basis, partially offset by the change to include the tax benefit of losses on certain tax-advantaged investments.
- *Non-Interest Income:* Non-interest income increased by \$36 million to \$744 million in 2018 primarily driven by higher revenue in our capital markets and agency businesses.
- *Provision for Credit Losses:* The provision for credit losses decreased by \$218 million to \$83 million in 2018 primarily driven by elevated charge-offs in 2017 in our taxi medallion portfolio.
- *Non-Interest Expense:* Non-interest expense increased by \$51 million to \$1.7 billion in 2018 primarily driven by higher operating expenses associated with growth and continued investments in technology and other business initiatives.
- *Loans Held for Investment:*
 - Period-end loans held for investment increased by \$5.8 billion to \$70.3 billion as of December 31, 2018 from December 31, 2017 primarily driven by growth across our commercial loan portfolios.
 - Average loans held for investment remained flat at \$67.3 billion in 2018 compared to 2017.
- *Deposits:* Period-end deposits decreased by \$4.5 billion to \$29.5 billion as of December 31, 2018 primarily due to deposit customers rotating out of deposit products and into higher-yielding investments.
- *Net Charge-Off and Nonperforming Metrics:* The net charge-off rate decreased by 61 basis points to 0.08% in 2018 compared to 2017 primarily driven by elevated charge-offs in 2017 in our taxi medallion portfolio.

The nonperforming loan rate remained flat at 0.44% as of December 31, 2018 and December 31, 2017.

Key factors affecting the results of our Commercial Banking business for 2017 compared to 2016, and changes in financial condition and credit performance between December 31, 2017 and December 31, 2016 include the following:

- *Net Interest Income:* Net interest income was substantially flat at \$2.3 billion in 2017.
- *Non-Interest Income:* Non-interest income increased by \$130 million to \$708 million in 2017 primarily driven by:
 - higher revenue from our commercial investments that generate tax credits; and
 - higher service charges and other customer-related fees as a result of increased activity across a broad range of products and services provided to our commercial customers.
- *Provision for Credit Losses:* The provision for credit losses decreased by \$182 million to \$301 million in 2017 primarily driven by stabilizing industry conditions impacting our oil and gas lending portfolio compared to adverse industry conditions in the prior year.
- *Non-Interest Expense:* Non-interest expense increased by \$196 million to \$1.6 billion in 2017 primarily driven by higher operating expenses associated with growth and continued investments in technology and other business initiatives.

- *Loans Held for Investment:* Period-end loans held for investment decreased by \$2.3 billion to \$64.6 billion as of December 31, 2017 from December 31, 2016 primarily due to:
 - paydowns in our commercial and industrial loan portfolios;
 - charge-offs in our taxi medallion lending portfolio; and
 - the transfer of the substantial majority of our remaining taxi medallion lending portfolio from loans held for investment to loans held for sale.

Average loans held for investment increased by \$2.2 billion to \$67.4 billion in 2017 compared to 2016 primarily driven by growth across our commercial loan portfolios.

- *Deposits:* Period-end deposits were substantially flat at \$33.9 billion as of December 31, 2017.
- *Net Charge-Off and Nonperforming Metrics:* The net charge-off rate increased by 24 basis points to 0.69% in 2017 compared to 2016 primarily driven by higher charge-offs in our taxi medallion lending portfolio resulting from declines in taxi medallion values.

The nonperforming loan rate decreased by 109 basis points to 0.44% as of December 31, 2017 from December 31, 2016 primarily due to:

- a combination of improved credit risk ratings, charge-offs and paydowns in our oil and gas portfolio; and
- charge-offs in our taxi medallion lending portfolio resulting from declines in taxi medallion values and the impact of transferring the substantial majority of our remaining taxi medallion lending portfolio, which was downgraded to nonperforming classification in the third quarter of 2017, from loans held for investment to loans held for sale.

Other Category

Other includes unallocated amounts related to our centralized Corporate Treasury group activities, such as management of our corporate investment portfolio, asset/liability management and certain capital management activities. Other also includes:

- foreign exchange-rate fluctuations on foreign currency-denominated balances;
- unallocated corporate revenue and expenses that do not directly support the operations of the business segments or for which the business segments are not considered financially accountable in evaluating their performance, such as certain restructuring charges;
- offsets related to certain line-item reclassifications; and
- residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments.

Table 12 summarizes the financial results of our Other category for the periods indicated.

Table 12: Other Category Results

<i>(Dollars in millions)</i>	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
Selected income statement data:					
Net interest income	\$ 7	\$ 171	\$ 193	(96)%	(11)%
Non-interest income	274	(5)	(63)	**	(92)
Total net revenue ⁽¹⁾⁽²⁾	281	166	130	69	28
Provision (benefit) for credit losses	(49)	4	(5)	**	**
Non-interest expense	679	442	309	54	43
Loss from continuing operations before income taxes	(349)	(280)	(174)	25	61
Income tax provision (benefit)	(494)	1,289	(339)	**	**
Income (loss) from continuing operations, net of tax	\$ 145	\$ (1,569)	\$ 165	**	**

⁽¹⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate (21% for 2018 and 35% for 2017 and 2016) and state taxes where applicable, with offsetting reductions to the Other category.

⁽²⁾ In the first quarter of 2018, we made a change in how revenue is measured in our Commercial Banking business to include the tax benefits of losses on certain tax-advantaged investments. These tax benefits are included in revenue on a taxable-equivalent basis within our Commercial Banking business, with an offsetting reduction to the Other category. In addition, all revenue presented on a taxable-equivalent basis in our Commercial Banking business was impacted by the reduction of the federal tax rate set forth in the Tax Act. The net impact of the measurement change and the reduction of the federal tax rate was a decrease of \$126 million in revenue in our Commercial Banking business for the year ended December 31, 2018, with an offsetting impact to the Other category.

** Not meaningful.

Net income from continuing operations recorded in the Other category was \$145 million in 2018 compared to net loss of \$1.6 billion in 2017. The income in 2018 was primarily driven by net gains from the sales of exited businesses, including gains of \$499 million on the sale of our consumer home loan portfolio and a tax benefit of \$284 million related to a tax methodology change on rewards costs.

The net gains were partially offset by:

- an impairment charge as a result of repositioning our investment securities portfolio; and
- a legal reserve build.

Net loss from continuing operations recorded in the Other category was \$1.6 billion in 2017 compared to net income of \$165 million in 2016. The loss in 2017 was primarily driven by:

- charges associated with the estimated impacts of the Tax Act; and
- higher operating expenses associated with restructuring activities, which primarily consisted of severance and related benefits pursuant to our ongoing benefit programs, that are the result of exiting certain business activities and locations, as well as the realignment of resources supporting our businesses.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements in accordance with U.S. GAAP requires management to make a number of judgments, estimates and assumptions that affect the amount of assets, liabilities, income and expenses on the consolidated financial statements. Understanding our accounting policies and the extent to which we use management judgment and estimates in applying these policies is integral to understanding our financial statements. We provide a summary of our significant accounting policies under “Note 1—Summary of Significant Accounting Policies.”

We have identified the following accounting policies as critical because they require significant judgments and assumptions about highly complex and inherently uncertain matters and the use of reasonably different estimates and assumptions could have a material impact on our results of operations or financial condition. These critical accounting policies govern:

- Loan loss reserves
- Asset impairment
- Fair value of financial instruments
- Customer rewards reserve

We evaluate our critical accounting estimates and judgments on an ongoing basis and update them as necessary based on changing conditions. Management has discussed our critical accounting policies and estimates with the Audit Committee of the Board of Directors.

Loan Loss Reserves

We maintain an allowance for loan and lease losses that represents management's estimate of incurred loan and lease losses inherent in our credit card, consumer banking and commercial banking loans held for investment as of each balance sheet date. We also separately reserve for binding unfunded lending commitments, letters of credit and financial guarantees. We build our allowance for loan and lease losses and reserve for unfunded lending commitments through the provision for credit losses, which is driven by charge-offs, changes in the allowance for loan and lease losses and changes in the reserve for unfunded lending commitments. The allowance totaled \$7.2 billion as of December 31, 2018, compared to \$7.5 billion as of December 31, 2017.

We have an established process, using analytical tools and management judgment, to determine our allowance for loan and lease losses. At least quarterly, the Chief Risk Officer, Chief Financial Officer, Controller and representatives from Finance and Risk Management review and assess our allowance methodologies and the adequacy of the allowance for loan and lease losses. This assessment involves evaluating many factors including, but not limited to, historical loss and recovery experience, recent trends in delinquencies and charge-offs, risk ratings, the impact of bankruptcy filings, the value of collateral underlying secured loans, account seasoning, changes in our credit evaluation, underwriting and collection management policies, seasonality, general economic conditions, changes in the legal and regulatory environment and uncertainties in forecasting and modeling techniques used in estimating our allowance for loan and lease losses. Key factors that have a significant impact on our allowance for loan and lease losses include assumptions about unemployment rates, home prices and the valuation of commercial properties, consumer real estate, automobiles and other collateral.

In addition to the allowance for loan and lease losses, we review and assess our estimate of probable losses related to binding unfunded lending commitments, such as letters of credit and financial guarantees, and unfunded loan commitments on a quarterly basis. The factors impacting our assessment generally align with those considered in our evaluation of the allowance for loan and lease losses for the Commercial Banking business. Changes to the reserve for losses on unfunded lending commitments are recorded through the provision for credit losses in the consolidated statements of income and to other liabilities on the consolidated balance sheets.

Although we examine a variety of externally available data, as well as our internal loan performance data, to determine our allowance for loan and lease losses and reserve for unfunded lending commitments, our estimation process is subject to risks and uncertainties, including a reliance on historical loss and trend information that may not be representative of current conditions and indicative of future performance. Accordingly, our actual credit loss experience may not be in line with our expectations. We provide additional information on the methodologies and key assumptions used in determining our allowance for loan and lease losses for each of our loan portfolio segments in "Note 1—Summary of Significant Accounting Policies." We provide information on the components of our allowance, disaggregated by impairment methodology, and changes in our allowance in "Note 5—Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments."

Finance Charge and Fee Reserves

Finance charges and fees on credit card loans are recorded in revenue when earned. Billed finance charges and fees on credit card loans are included in loan receivables net of amounts that we consider uncollectible. Unbilled finance charges and fees on credit card loans are included in interest receivable. We continue to accrue finance charges and fees on credit card loans until the account is charged-off. However, when we do not expect full payment of billed finance charges and fees, we reduce the balance of our

credit card loan receivables and revenue by the amount of finance charges and fees billed but not expected to be collected. Total net revenue was reduced by \$1.3 billion, \$1.4 billion and \$1.1 billion in 2018, 2017 and 2016, respectively, for the estimated uncollectible amount of billed finance charges and fees. The finance charge and fee reserve totaled \$468 million and \$491 million as of December 31, 2018 and December 31, 2017, respectively.

We review and assess the adequacy of the uncollectible finance charge and fee reserve on a quarterly basis. Our methodology for estimating the uncollectible portion of billed finance charges and fees is consistent with the methodology we use to estimate the allowance for incurred losses on the principal portion of our credit card loan receivables.

Asset Impairment

In addition to our loan portfolio, we review other assets for impairment on a regular basis in accordance with applicable accounting guidance. This process requires significant management judgment and involves various estimates and assumptions. Below we describe our process for assessing impairment of goodwill and intangible assets and the key estimates and assumptions involved in this process.

Goodwill and Intangible Assets

Goodwill represents the excess of the fair value of the consideration transferred, plus the fair value of any non-controlling interests in the acquiree, over the fair value of the net assets acquired and liabilities assumed as of the acquisition date. Intangible assets, which we report on our consolidated balance sheets as a component of other assets, consist primarily of purchased credit card relationships ("PCCR") and other intangibles.

Goodwill totaled \$14.5 billion as of both December 31, 2018 and 2017. The net carrying amount of intangible assets decreased to \$254 million as of December 31, 2018, from \$421 million as of December 31, 2017 primarily due to amortization. We did not recognize any goodwill impairment in 2018, 2017 or 2016. See "Note 7—Goodwill and Intangible Assets" for additional information.

Goodwill

We perform our goodwill impairment test annually on October 1 at a reporting unit level. We are also required to test goodwill for impairment whenever events or circumstances make it more-likely-than-not that impairment may have occurred. We have four reporting units: Credit Card, Auto, Other Consumer Banking and Commercial Banking.

The goodwill impairment test is a two-step process. The first step involves a comparison of the estimated fair value of a reporting unit to its carrying amount, including goodwill. If the estimated fair value exceeds its carrying amount, goodwill of the reporting unit is not impaired. If the estimated fair value of a reporting unit is below its carrying amount, management must estimate the fair value of the assets and liabilities of that reporting unit's balance sheet based on applicable accounting guidance in order to measure the impairment.

For the purpose of our goodwill impairment testing, we calculate the carrying amount of a reporting unit using an allocated capital approach based on each reporting unit's specific regulatory capital requirements, economic capital requirements, and underlying risks. The carrying amount for a reporting unit is the sum of its respective capital requirements, goodwill and intangibles balances. We then compare the carrying amount to our total consolidated stockholders' equity to assess the reasonableness of our methodology. The total carrying amount of our four reporting units was \$43.3 billion, as compared to consolidated stockholder's equity of \$50.6 billion as of October 1, 2018. The \$7.3 billion excess in consolidated stockholder's equity was primarily attributable to capital allocated to our Other category and other future capital needs such as dividends or other strategic initiatives.

Determining the fair value of a reporting unit and the associated assets, liabilities and intangible assets, is a subjective process that requires the use of estimates and the exercise of significant judgment. We calculated the fair value of our reporting units using a discounted cash flow ("DCF") calculation, a form of the income approach. This income approach calculation used projected cash flows based on each reporting unit's internal forecast and the perpetuity growth method to calculate terminal values. Our DCF analysis required management to make estimates about future loan, deposit and revenue growth, as well as credit losses and capital rates. These cash flows and terminal values were then discounted using discount rates based on our external cost of capital with adjustments for the risk inherent in each reporting unit. The reasonableness of the DCF approach was assessed by reference to a market-based approach using comparable market multiples and recent market transactions where available. The results of the 2018 annual impairment test for the Credit Card, Auto, Other Consumer Banking and Commercial Banking reporting units indicated that the estimated fair values of these four reporting units substantially exceeded their carrying amounts.

Assumptions used in estimating the fair value of a reporting unit are judgmental and inherently uncertain. A significant change in the economic conditions of a reporting unit, such as declines in business performance, increases in credit losses, increases in capital requirements, deterioration of market conditions, adverse impacts of regulatory or legislative changes or increases in the estimated cost of capital, could cause the estimated fair values of our reporting units to decline in the future, and increase the risk of a goodwill impairment in a future period.

Intangible Assets

Intangible assets with definitive useful lives are amortized over their estimated lives and evaluated for potential impairment whenever events or changes in circumstances suggest that an asset's or asset group's carrying amount may not be fully recoverable. An impairment loss is recognized if the sum of the estimated undiscounted cash flows relating to the asset or asset group is less than the corresponding carrying amount. There were no meaningful impairments of intangible assets in 2018 and 2017. We recorded an impairment charge of \$17 million in 2016 related primarily to our brokerage relationship intangibles.

See "Note 7—Goodwill and Intangible Assets" for additional information.

Fair Value

Fair value, also referred to as an exit price, is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The fair value accounting guidance provides a three-level fair value hierarchy for classifying financial instruments. This hierarchy is based on the markets in which the assets or liabilities trade and whether the inputs to the valuation techniques used to measure fair value are observable or unobservable. The fair value measurement of a financial asset or liability is assigned a level based on the lowest level of any input that is significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are described below:

Level 1: Valuation is based on quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: Valuation is based on observable market-based inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Valuation is generated from techniques that use significant assumptions not observable in the market. Valuation techniques include pricing models, discounted cash flow methodologies or similar techniques.

The degree of management judgment involved in determining the fair value of a financial instrument is dependent upon the availability of quoted prices in active markets or observable market parameters. When quoted prices and observable data in active markets are not fully available, management judgment is necessary to estimate fair value. Changes in market conditions, such as reduced liquidity in the capital markets or changes in secondary market activities, may reduce the availability and reliability of quoted prices or observable data used to determine fair value.

We have developed policies and procedures to determine when markets for our financial assets and liabilities are inactive if the level and volume of activity has declined significantly relative to normal conditions. If markets are determined to be inactive, it may be appropriate to adjust price quotes received. When significant adjustments are required to price quotes or inputs, it may be appropriate to utilize an estimate based primarily on unobservable inputs.

Significant judgment may be required to determine whether certain financial instruments measured at fair value are classified as Level 2 or Level 3. In making this determination, we consider all available information that market participants use to measure the fair value of the financial instrument, including observable market data, indications of market liquidity and orderliness, and our understanding of the valuation techniques and significant inputs used. Based upon the specific facts and circumstances of each instrument or instrument category, judgments are made regarding the significance of the Level 3 inputs to the instruments' fair value measurement in its entirety. If Level 3 inputs are considered significant, the instrument is classified as Level 3. The process for determining fair value using unobservable inputs is generally more subjective and involves a high degree of management judgment and assumptions. We discuss changes in the valuation inputs and assumptions used in determining the fair value of our financial instruments, including the extent to which we have relied on significant unobservable inputs to estimate fair value and our process for corroborating these inputs, in "Note 17—Fair Value Measurement."

We have a governance framework and a number of key controls that are intended to ensure that our fair value measurements are appropriate and reliable. Our governance framework provides for independent oversight and segregation of duties. Our control

processes include review and approval of new transaction types, price verification, and review of valuation judgments, methods, models, process controls and results.

Groups independent of our trading and investing functions participate in the review and validation process. Tasks performed by these groups include periodic verification of fair value measurements to determine if assigned fair values are reasonable, including comparing prices from vendor pricing services to other available market information.

Our Fair Value Committee (“FVC”), which includes representation from business areas, Risk Management and Finance, provides guidance and oversight to ensure an appropriate valuation control environment. The FVC regularly reviews and approves our fair valuations to ensure that our valuation practices are consistent with industry standards and adhere to regulatory and accounting guidance.

We have a model policy, established by an independent Model Risk Office, which governs the validation of models and related supporting documentation to ensure the appropriate use of models for pricing and fair value measurements. The Model Risk Office validates all models and provides ongoing monitoring of their performance.

The fair value governance process is set up in a manner that allows the Chairperson of the FVC to escalate valuation disputes that cannot be resolved by the FVC to a more senior committee called the Valuations Advisory Committee (“VAC”) for resolution. The VAC is chaired by the Chief Financial Officer and includes other members of senior management. The VAC convenes to review escalated valuation disputes.

Customer Rewards Reserve

We offer products, primarily credit cards, which include programs that allow members to earn rewards based on account activity that can be redeemed for cash (primarily in the form of statement credits), gift cards, travel, or covering eligible charges. The amount of rewards that a customer earns varies based on the terms and conditions of the rewards program and product. The majority of our rewards do not expire and there is no limit on the amount of rewards an eligible card member can earn. Customer rewards costs, which we generally record as an offset to interchange income, are driven by various factors such as card member purchase volume, the terms and conditions of the rewards program and rewards redemption cost. We establish a customer rewards reserve that reflects management’s judgment regarding rewards earned that are expected to be redeemed and the estimated redemption cost.

We use financial models to estimate ultimate redemption rates of rewards earned to date by current card members based on historical redemption trends, current enrollee redemption behavior, card product type, year of program enrollment, enrollment tenure and card spend levels. Our current assumption is that the vast majority of all rewards earned will eventually be redeemed. We use a weighted-average redemption cost during the previous twelve months, adjusted as appropriate for recent changes in redemption costs, including the mix of rewards redeemed, to estimate future redemption costs. We continually evaluate our reserve and assumptions based on developments in redemption patterns, changes to the terms and conditions of the rewards program and other factors. We recognized customer rewards expense of \$4.4 billion, \$3.7 billion and \$3.2 billion in 2018, 2017 and 2016, respectively. Our customer rewards reserve, which is included in other liabilities on our consolidated balance sheets, totaled \$4.3 billion and \$3.9 billion as of December 31, 2018 and 2017, respectively.

ACCOUNTING CHANGES AND DEVELOPMENTS

See “Note 1—Summary of Significant Accounting Policies” for information on the accounting standards we adopted in 2018 and the expected impacts of accounting standards issued but not adopted as of December 31, 2018.

CAPITAL MANAGEMENT

The level and composition of our capital are determined by multiple factors, including our consolidated regulatory capital requirements and internal risk-based capital assessments such as internal stress testing and economic capital. The level and composition of our capital may also be influenced by rating agency guidelines, subsidiary capital requirements, business environment, conditions in the financial markets and assessments of potential future losses due to adverse changes in our business and market environments.

Capital Standards and Prompt Corrective Action

We are subject to capital adequacy standards adopted by the Federal Banking Agencies, including the Basel III Capital Rule. Moreover, the Banks, as insured depository institutions, are subject to PCA capital regulations.

We entered parallel run under Basel III Advanced Approaches on January 1, 2015, during which we are required to calculate capital ratios under both the Basel III Standardized Approach and the Basel III Advanced Approaches, though we continue to use the Standardized Approach for purposes of meeting regulatory capital requirements. Under the Basel III Capital Rule, when we complete our parallel run for the Advanced Approaches, our minimum risk-based capital requirement will be determined by the greater of our risk-weighted assets under the Basel III Standardized Approach and the Basel III Advanced Approaches. Once we exit parallel run, based on clarification of the Basel III Capital Rule from our regulators, any amount by which our expected credit losses exceed eligible credit reserves, as each term is defined under the Basel III Capital Rule, will be deducted from our Basel III Standardized Approach numerator, subject to transition provisions. Inclusive of this impact, based on current capital rules and our business mix, we estimate that our Basel III Advanced Approaches ratios will be lower than our Basel III Standardized Approach ratios. However, there is uncertainty whether this will remain the case in light of potential changes to the United States capital rules.

The Basel III Capital Rule also introduced the supplementary leverage ratio for all Advanced Approaches banking organizations with a minimum requirement of 3.0%. The supplementary leverage ratio compares Tier 1 capital to total leverage exposure, which includes all on-balance sheet assets and certain off-balance sheet exposures, including derivatives and unused commitments. Given that we are in our Basel III Advanced Approaches parallel run, we calculate the ratio based on Tier 1 capital under the Standardized Approach. The minimum requirement for the supplementary leverage ratio became effective as of January 1, 2018.

The Market Risk Rule supplements both the Basel III Standardized Approach and the Basel III Advanced Approaches by requiring institutions subject to the Market Risk Rule to adjust their risk-based capital ratios to reflect the market risk in their trading portfolios. As of December 31, 2018, the Company and CONA are subject to the Market Risk Rule. See “MD&A—Market Risk Profile” below for additional information.

In October 2018, the Federal Banking Agencies proposed to provide tailored requirements for certain of the capital rules for different categories of banking institutions. As proposed, these categories would be determined by an institution’s asset size, with adjustments to a more stringent category possible if the institution meets certain other thresholds. As a BHC with total consolidated assets of at least \$250 billion, we would be a Category III institution under the Tailoring Proposed Rule. As such, we would no longer be subject to the Basel III Advanced Approaches and certain associated capital requirements, although we would remain subject to the countercyclical capital buffer and supplementary leverage ratio, which are currently required only for Basel III Advanced Approaches institutions. The financial and operational impact on us of the Tailoring Proposed Rule remains uncertain until a final rule is published.

In December 2018, the Federal Banking Agencies issued a final rule to address regulatory capital treatment under the CECL model. The CECL model will be applicable to Capital One as of January 1, 2020. The CECL Capital Rule revises the Federal Banking Agencies’ regulatory capital rules to identify which credit loss allowances under the CECL model are eligible for inclusion in regulatory capital and to provide banking organizations the option to phase in over three years the day-one adverse effects on regulatory capital that may result from the adoption of the CECL model. The effects of the CECL Capital Rule on our capital requirements are currently uncertain.

Table 13 provides a comparison of our regulatory capital ratios under the Basel III Standardized Approach subject to the applicable transition provisions, the regulatory minimum capital adequacy ratios and the PCA well-capitalized level for each ratio, where applicable, as of December 31, 2018 and 2017.

Table 13: Capital Ratios under Basel III⁽¹⁾

	December 31, 2018			December 31, 2017		
	Capital Ratio	Minimum Capital Adequacy	Well-Capitalized	Capital Ratio	Minimum Capital Adequacy	Well-Capitalized
Capital One Financial Corp:						
Common equity Tier 1 capital ⁽²⁾	11.2%	4.5%	N/A	10.3%	4.5%	N/A
Tier 1 capital ⁽³⁾	12.7	6.0	6.0%	11.8	6.0	6.0%
Total capital ⁽⁴⁾	15.1	8.0	10.0	14.4	8.0	10.0
Tier 1 leverage ⁽⁵⁾	10.7	4.0	N/A	9.9	4.0	N/A
Supplementary leverage ⁽⁶⁾	9.0	3.0	N/A	8.4	N/A	N/A
COBNA:						
Common equity Tier 1 capital ⁽²⁾	15.3	4.5	6.5	14.3	4.5	6.5
Tier 1 capital ⁽³⁾	15.3	6.0	8.0	14.3	6.0	8.0
Total capital ⁽⁴⁾	17.6	8.0	10.0	16.9	8.0	10.0
Tier 1 leverage ⁽⁵⁾	14.0	4.0	5.0	12.7	4.0	5.0
Supplementary leverage ⁽⁶⁾	11.5	3.0	N/A	10.4	N/A	N/A
CONA:						
Common equity Tier 1 capital ⁽²⁾	13.0	4.5	6.5	12.2	4.5	6.5
Tier 1 capital ⁽³⁾	13.0	6.0	8.0	12.2	6.0	8.0
Total capital ⁽⁴⁾	14.2	8.0	10.0	13.4	8.0	10.0
Tier 1 leverage ⁽⁵⁾	9.1	4.0	5.0	8.6	4.0	5.0
Supplementary leverage ⁽⁶⁾	8.0	3.0	N/A	7.7	N/A	N/A

⁽¹⁾ Capital ratios are calculated based on the Basel III Standardized Approach framework, subject to applicable transition provisions, such as the inclusion of the unrealized gains and losses on securities available for sale included in AOCI and adjustments related to intangible assets other than goodwill. The inclusion of AOCI and the adjustments related to intangible assets are phased-in at 80% for 2017 and 100% for 2018. Capital requirements that are not applicable are denoted by "N/A."

⁽²⁾ Common equity Tier 1 capital ratio is a regulatory capital measure calculated based on common equity Tier 1 capital divided by risk-weighted assets.

⁽³⁾ Tier 1 capital ratio is a regulatory capital measure calculated based on Tier 1 capital divided by risk-weighted assets.

⁽⁴⁾ Total capital ratio is a regulatory capital measure calculated based on total capital divided by risk-weighted assets.

⁽⁵⁾ Tier 1 leverage ratio is a regulatory capital measure calculated based on Tier 1 capital divided by adjusted average assets.

⁽⁶⁾ Supplementary leverage ratio is a regulatory capital measure calculated based on Tier 1 capital divided by total leverage exposure.

Table 14 presents regulatory capital under Basel III Standardized Approach and regulatory capital metrics as of December 31, 2018 and 2017.

Table 14: Regulatory Risk-Based Capital Components and Regulatory Capital Metrics

<i>(Dollars in millions)</i>	December 31, 2018	December 31, 2017
Regulatory Capital Under Basel III Standardized Approach		
Common equity excluding AOCI	\$ 48,570	\$ 45,296
Adjustments:		
AOCI ⁽¹⁾⁽²⁾	(1,263)	(808)
Goodwill, net of related deferred tax liabilities	(14,373)	(14,380)
Intangible assets, net of related deferred tax liabilities ⁽²⁾	(254)	(330)
Other	391	258
Common equity Tier 1 capital	33,071	30,036
Tier 1 capital instruments	4,360	4,360
Additional Tier 1 capital adjustments	—	—
Tier 1 capital	37,431	34,396
Tier 2 capital instruments	3,483	3,865
Qualifying allowance for loan and lease losses	3,731	3,701
Tier 2 capital	7,214	7,566
Total capital	\$ 44,645	\$ 41,962
Regulatory Capital Metrics		
Risk-weighted assets	\$ 294,950	\$ 292,225
Adjusted average assets	350,606	348,424
Total leverage exposure	414,701	407,832

⁽¹⁾ Amounts presented are net of tax.

⁽²⁾ Amounts based on transition provisions for regulatory capital deductions and adjustments of 80% for 2017 and 100% for 2018.

The Company exceeded the minimum capital requirements and each of the Banks exceeded the minimum regulatory requirements and were well capitalized under PCA requirements as of both December 31, 2018 and 2017.

The Basel III Capital Rule requires banks to maintain a capital conservation buffer, composed of common equity Tier 1 capital, of 2.5% above the regulatory minimum ratios. The capital conservation buffer was 1.875% in 2018 and is fully phased-in at 2.5% as of January 1, 2019.

For banks subject to the Advanced Approaches, including the Company and the Banks, the capital conservation buffer may be supplemented by an incremental countercyclical capital buffer of up to 2.5% composed of common equity Tier 1 capital and set at the discretion of the Federal Banking Agencies. As of December 31, 2018, the countercyclical capital buffer was zero percent in the United States. A determination to increase the countercyclical capital buffer generally would be effective twelve months after the announcement of such an increase, unless the Federal Banking Agencies set an earlier effective date.

For 2018, the minimum capital requirement plus capital conservation buffer and countercyclical capital buffer for common equity Tier 1 capital, Tier 1 capital and total capital ratios were 6.375%, 7.875% and 9.875%, respectively, for the Company and the Banks. A common equity Tier 1 capital ratio, Tier 1 capital ratio, or total capital ratio below the applicable regulatory minimum ratio plus the applicable capital conservation buffer and the applicable countercyclical buffer (if set to an amount greater than zero percent) might restrict a bank's ability to distribute capital and make discretionary bonus payments. As of December 31, 2018, the Company and each of the Banks were all above the applicable combined thresholds.

Capital Planning and Regulatory Stress Testing

On April 5, 2018, we submitted our capital plan to the Federal Reserve as part of the 2018 CCAR cycle. On June 28, 2018, the Federal Reserve informed us that they had “no objection” to our CCAR 2018 Capital Plan submission. As a result of this non-objection to our capital plan, the Board of Directors authorized the repurchase of up to \$1.2 billion of shares of our common stock beginning in the third quarter of 2018 through the end of the second quarter of 2019. The Board of Directors also authorized the dividend on our common stock of \$0.40 per share in each quarter in 2018. For the description of the regulatory capital planning rules we are subject to, see “Part I—Item 1. Business—Supervision and Regulation.”

Dividend Policy and Stock Purchases

For the year ended December 31, 2018, we declared and paid common stock dividends of \$776 million, or \$1.60 per share, and preferred stock dividends of \$265 million. The following table summarizes the dividends paid per share on our various preferred stock series in each quarter of 2018.

Table 15: Preferred Stock Dividends Paid Per Share

Series	Description	Issuance Date	Per Annum Dividend Rate	Dividend Frequency	2018			
					Q4	Q3	Q2	Q1
Series B	6.00% Non-Cumulative	August 20, 2012	6.00%	Quarterly	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00
Series C	6.25% Non-Cumulative	June 12, 2014	6.25	Quarterly	15.63	15.63	15.63	15.63
Series D	6.70% Non-Cumulative	October 31, 2014	6.70	Quarterly	16.75	16.75	16.75	16.75
Series E	Fixed-to-Floating Rate Non-Cumulative	May 14, 2015	5.55% through 5/31/2020; 3-mo. LIBOR+ 380 bps thereafter	Semi-Annually through 5/31/2020; Quarterly thereafter	27.75	—	27.75	—
Series F	6.20% Non-Cumulative	August 24, 2015	6.20	Quarterly	15.50	15.50	15.50	15.50
Series G	5.20% Non-Cumulative	July 29, 2016	5.20	Quarterly	13.00	13.00	13.00	13.00
Series H	6.00% Non-Cumulative	November 29, 2016	6.00	Quarterly	15.00	15.00	15.00	15.00

The declaration and payment of dividends to our stockholders, as well as the amount thereof, are subject to the discretion of our Board of Directors and depend upon our results of operations, financial condition, capital levels, cash requirements, future prospects and other factors deemed relevant by the Board of Directors. As a BHC, our ability to pay dividends is largely dependent upon the receipt of dividends or other payments from our subsidiaries. Regulatory restrictions exist that limit the ability of the Banks to transfer funds to our BHC. As of December 31, 2018, funds available for dividend payments from COBNA and CONA were \$3.2 billion and \$2.2 billion, respectively. There can be no assurance that we will declare and pay any dividends to stockholders. Consistent with our 2018 Stock Repurchase Program, our Board of Directors authorized the repurchase of up to \$1.2 billion of shares of common stock beginning in the third quarter of 2018 through the end of the second quarter of 2019. We completed the 2018 Stock Repurchase Program in the fourth quarter of 2018.

The timing and exact amount of any future common stock repurchases will depend on various factors, including regulatory approval, market conditions, opportunities for growth, our capital position and the amount of retained earnings. Our stock repurchase program does not include specific price targets, may be executed through open market purchases or privately negotiated transactions, including utilizing Rule 10b5-1 programs, and may be suspended at any time. For additional information on dividends and stock repurchases, see “PART I—Item 1. Business—Supervision and Regulation—Dividends, Stock Repurchases and Transfers of Funds.”

RISK MANAGEMENT

Risk Framework

We use a risk framework to provide an overall enterprise-wide approach for effectively managing risk. We execute against our risk framework with the “Three Lines of Defense” risk management model to demonstrate and structure the roles, responsibilities and accountabilities in the organization for taking and managing risk.

The “First Line of Defense” is comprised of the business areas that through their day-to-day business activities take risk on our behalf. As the business owner, the first line is responsible for identifying, assessing, managing and controlling that risk. This principle places ultimate accountability for the management of risks and ownership of risk decisions with the CEO and business heads. The “Second Line of Defense” provides oversight of first line risk taking and management, and is primarily comprised of our Risk Management organization. The second line assists in determining risk appetite and the strategies, policies and structures for managing risks. The second line is both an “expert advisor” to the first line and an “effective challenger” of first line activities. The “Third Line of Defense” is comprised of our Internal Audit and Credit Review functions. The third line provides independent and objective assurance to senior management and to the Board of Directors that first and second line risk management and internal control systems and its governance processes are well-designed and working as intended.

The risk framework is also used to guide design of risk programs and performance of risk activity within each risk category and across the entire enterprise.

Our risk framework, which is built around governance, processes and people, consists of the following eight key elements:

Establish Governance Processes, Accountabilities and Risk Appetites

The starting point of our risk framework is the establishment of governance processes, accountabilities and risk appetites. Our Board of Directors and senior management establish the tone at the top regarding the importance of internal control, including standards of conduct and the integrity and ethical values of the Company. Management reinforces expectations at the various levels of the organization. This portion of the framework sets the foundation for the methods for governing risk taking, the interactions within and among the lines of defense, and the risk appetites and tolerance limits for risk taking.

Identify and Assess Risks and Ownership

Identifying and assessing risks and ownership is the beginning of the more detailed day-to-day process of managing risk. This portion of the framework clarifies the importance of strong first-line management and accountability for identifying and assessing risk while specifying the role of the second line to identify and assess risk, particularly when taking on new initiatives.

Develop and Operate Controls, Monitoring and Mitigation Plans

We develop, operate and monitor controls to manage risk within tolerance levels. The first line develops controls to oversee and manage identified risks. Controls may prevent risks from occurring or measure the amount of risk being taken so that the amount may be proactively managed. Whenever possible, plans are implemented to mitigate risks or reduce them to lower levels. The first line leads mitigation, control and monitoring actions. The second line is a consultant on control design when needed.

Test and Detect Control Gaps and Perform Corrective Action

While the first line is principally accountable for taking, controlling and monitoring risk, the second line oversees and monitors first line risk taking, including the effectiveness of first line controls, and the third line independently tests and oversees first and second line risk taking. These activities provide the second and third lines of defense with the ability to reduce the likelihood of unauthorized or unplanned risk taking within the organization. Control gaps are closed by first line corrective action.

Escalate Key Risks and Gaps to Executive Management and When Appropriate, the Board of Directors

Escalation is an important component of our risk framework. Use of escalation is encouraged and does not necessarily indicate a failure on the part of first, second, or third line risk management. Through escalation in the first line, decisions requiring judgment can be raised to executives who have the broadest possible context and experience to make challenging decisions. Escalation in the second and third lines of defense can also demonstrate part of their core responsibilities of effective challenge. If appropriate,

risks are escalated to the Board of Directors to ensure alignment with the most material risk decisions and/or transparency to the largest risks facing the organization.

Calculate and Allocate Capital in Alignment with Risk Management and Measurement Processes (including Stress Testing)

Capital ultimately is held to protect the company from unforeseen risks or unexpected risk severity. As such, it is important that capital planning processes be well linked with risk management practices to ensure the appropriate capital protections are in place for the safety and soundness of the company. Stress testing and economic capital measurement, both of which incorporate inputs from across the risk spectrum, are key tools for evaluating our capital position and risk adjusted returns.

Support with the Right Culture, Talent and Skills

The right culture, talent and skills are critical to effective risk management. Our risk framework is supported with the right culture that promotes the foundation and values of the risk management organization. Skills necessary to effectively manage risk are reinforced through performance management systems. When needed, risk talent is augmented through recruitment of industry experts as well as training and development of internal associates.

Enabled by the Right Data, Infrastructure and Programs

Data, infrastructure and programs are key enablers of our risk management processes and practices. These core requirements enable effective risk modeling, efficient first, second and third line risk activity performance, and cross-line interaction. In addition, effective program design of each risk category is regularly assessed to ensure risk practices continue to evolve with leading industry practices, and continue to interact across categories as desired for a strong overall risk management program.

Risk Appetite

Risk appetite defines the parameters for taking and accepting risks and are used by management and our Board of Directors to make business decisions. Risk appetite refers to the level of risk our business is willing to take in pursuit of our corporate business objectives. The Board of Directors approves our risk appetite including risk appetite statements and associated metrics, Board Notification Thresholds, and Board Limits for each of our eight risk categories. We communicate risk appetite statements, limits and thresholds to the appropriate levels in the organization and monitor adherence. While first line executives manage risk on a day-to-day basis, the Chief Risk Officer provides effective challenge and independent oversight to ensure that risks are within the appetite and specific limits established by the Board of Directors. The Chief Risk Officer reports to the Board of Directors regularly on the nature and level of risk across all eight risk categories. In addition to his broader management responsibilities, our Chief Executive Officer is responsible for developing the strategy and mission of our organization, determining and leading our culture, and reviewing and providing input into our risk appetite.

Risk Categories

We apply our risk framework to protect our company from the eight major categories of risk that we are exposed to through our business activities. Our eight major categories of risk are:

- *Compliance Risk:* Compliance risk is the risk to current or anticipated earnings or capital arising from violations of laws, rules, or regulations. Compliance risk can also arise from nonconformance with prescribed practices, internal policies and procedures, contractual obligations, or ethical standards that reinforce those laws, rules, or regulations;
- *Credit Risk:* Credit risk is the risk to current or projected financial condition and resilience arising from an obligor's failure to meet the terms of any contract with the Company or otherwise perform as agreed;
- *Legal Risk:* Legal risk is the risk of material adverse impact due to: new and changed laws and regulations; interpretations of law; drafting, interpretation and enforceability of contracts; adverse decisions/consequences arising from litigation or regulatory action; the establishment, management and governance of our legal entity structure; and the failure to seek/follow appropriate legal counsel when needed;
- *Liquidity Risk:* Liquidity risk is the risk that the Company will not be able to meet its future financial obligations as they come due, or invest in future asset growth because of an inability to obtain funds at a reasonable price within a reasonable time period;

- *Market Risk:* Market risk is the risk that an institution's earnings or the economic value of equity could be adversely impacted by changes in interest rates, foreign exchange rates, or other market factors;
- *Operational Risk:* Operational risk is the risk of loss, capital impairment, adverse customer experience, or reputational impact resulting from failure to comply with policies and procedures, failed internal processes or systems, or from external events;
- *Reputation Risk:* Reputation risk is the risk to market value, recruitment and retention of talented associates and maintenance of a loyal customer base due to the negative perceptions of our internal and external constituents regarding our business strategies and activities; and
- *Strategic Risk:* Strategic risk is the risk of a material impact on current or anticipated earnings, capital, franchise or enterprise value arising from: (i) the Company's competitive and market position and evolving forces in the industry that can affect that position; (ii) lack of responsiveness to these conditions; (iii) strategic decisions to change the Company's scale, market position or operating model; or (iv) failure to appropriately consider implementation risks inherent in the Company's strategy.

Below we provide an overview of how we manage our eight primary risk categories.

Compliance Risk Management

We recognize that compliance requirements for financial institutions are increasingly complex and that there are heightened expectations from our regulators and our customers. In response, we continuously evaluate the regulatory environment and proactively adjust our compliance risk program to fully address these expectations.

Our Compliance Management Program establishes expectations for determining compliance requirements, assessing the risk of new product offerings, creating appropriate controls and training to address requirements, monitoring for control performance, and independently testing for adherence to compliance requirements. The program also establishes regular compliance reporting to senior business leaders, the executive committee and the Board of Directors.

The Chief Compliance Officer is responsible for establishing and overseeing our Compliance Risk Management Program. Business areas incorporate compliance requirements and controls into their business policies, standards, processes and procedures. They regularly monitor and report on the efficacy of their compliance controls and Corporate Compliance periodically independently tests to validate the effectiveness of business controls.

Credit Risk Management

We recognize that we are exposed to cyclical changes in credit quality. Consequently, we try to ensure our credit portfolio is resilient to economic downturns. Our most important tool in this endeavor is sound underwriting. In unsecured consumer loan underwriting, we generally assume that loans will be subject to an environment in which losses are higher than those prevailing at the time of underwriting. In commercial underwriting, we generally require strong cash flow, collateral, covenants and guarantees. In addition to sound underwriting, we continually monitor our portfolio and take steps to collect or work out distressed loans.

The Chief Risk Officer, in conjunction with the Consumer and Commercial Chief Credit Officers, is responsible for establishing credit risk policies and procedures, including underwriting and hold guidelines and credit approval authority, and monitoring credit exposure and performance of our lending related transactions. These responsibilities are fulfilled by the Chief Consumer Credit Officer and the Chief Commercial Credit Officer who are responsible for evaluating the risk implications of credit strategy and for oversight of credit for both the existing portfolio and any new credit investments. The Chief Consumer Credit Officer and the Chief Commercial Credit Officer have formal approval authority for various types and levels of credit decisions, including individual commercial loan transactions. Division Presidents within each segment are responsible for managing the credit risk within their divisions and maintaining processes to control credit risk and comply with credit policies and guidelines. In addition, the Chief Risk Officer establishes policies, delegates approval authority and monitors performance for non-loan credit exposure entered into with financial counterparties or through the purchase of credit sensitive securities in our investment portfolio.

Our credit policies establish standards in five areas: customer selection, underwriting, monitoring, remediation and portfolio management. The standards in each area provide a framework comprising specific objectives and control processes. These standards are supported by detailed policies and procedures for each component of the credit process. Starting with customer selection, our goal is to generally provide credit on terms that generate above hurdle returns. We use a number of quantitative and qualitative factors to manage credit risk, including setting credit risk limits and guidelines for each of our lines of business. We monitor

performance relative to these guidelines and report results and any required mitigating actions to appropriate senior management committees and our Board of Directors.

Legal Risk Management

The General Counsel provides legal evaluation and guidance to the enterprise and business areas and partners with other risk management functions such as Compliance and Internal Audit. This evaluation and guidance is based on an assessment of the type and degree of legal risk associated with the internal business area practices and activities and of the controls the business has in place to mitigate legal risks.

Liquidity Risk Management

We manage liquidity risk by applying our Liquidity Adequacy Framework (the "Framework"). The Framework uses internal and regulatory stress testing and the evaluation of other balance sheet metrics to confirm that we maintain a fortified balance sheet that is resilient to uncertainties that may arise as a consequence of systemic or idiosyncratic liquidity events. We continuously monitor market and economic conditions to evaluate emerging stress conditions and appropriate action plans in accordance with our Contingency Funding Plan, which includes the Company's policies, procedures and action plans for managing liquidity stress events. The Framework enables us to manage our liquidity risk in accordance with regulatory requirements.

Additionally, the Framework establishes governing principles that apply to the management of liquidity risk. We use these principles to monitor, measure and report liquidity risk; to develop funding and investment strategies that enable us to maintain an adequate level of liquidity to support our businesses and satisfy regulatory requirements; and to protect us from a broad range of liquidity events should they arise.

The Chief Risk Officer, in conjunction with the Chief Market and Liquidity Risk Officer, is responsible for the establishment of liquidity risk management policies and standards for governance and monitoring of liquidity risk at a corporate level. We assess liquidity strength by evaluating several different balance sheet metrics under severe stress scenarios to ensure we can withstand significant funding degradation through idiosyncratic, systemic, and combined liquidity stress scenarios. Management reports liquidity metrics to appropriate senior management committees and our Board of Directors no less than quarterly.

We seek to mitigate liquidity risk strategically and tactically. From a strategic perspective, we have acquired and built deposit gathering businesses and actively monitor our funding concentration. From a tactical perspective, we have accumulated a sizable liquidity reserve comprised of cash and cash equivalents, high-quality, unencumbered securities and committed collateralized credit lines. We also continue to maintain access to secured and unsecured debt markets through regular issuance. This combination of stable and diversified funding sources and our stockpile of liquidity reserves enable us to maintain confidence in our liquidity position.

Market Risk Management

The Chief Financial Officer and the Chief Risk Officer are responsible for the establishment of market risk management policies and standards for the governance and monitoring of market risk at a corporate level. Market risk is inherent from the financial instruments associated with our business operations and activities including loans, deposits, securities, short-term borrowings, long-term debt and derivatives. We manage market risk exposure, which is principally driven by balance sheet interest rate risk, centrally and establish quantitative risk limits to monitor and control our exposure.

We recognize that interest rate and foreign exchange risk is inherent in the banking business due to the nature of the assets and liabilities of banks. Banks typically manage the trade-off between near-term earnings volatility and market value volatility by targeting moderate levels of each. In addition to using industry accepted techniques to analyze and measure interest rate and foreign exchange risk, we perform sensitivity analysis to identify our risk exposures under a broad range of scenarios. Investment securities and derivatives are the main levers for the management of interest rate and foreign exchange risk.

The market risk positions for the Company and each of the Banks are calculated separately and in aggregate, and analyzed against pre-established limits. Results are reported to the Asset Liability Committee monthly and to the Risk Committee of the Board of Directors no less than quarterly. Management is authorized to utilize financial instruments as outlined in our policy to actively manage market risk exposure.

Operational Risk Management

We recognize the criticality of managing operational risk on both a strategic and day-to-day basis and that there are heightened expectations from our regulators and our customers. We have implemented appropriate operational risk management policies, standards, processes and controls to enable the delivery of high quality and consistent customer experiences and to achieve business objectives in a controlled manner.

The Chief Operational Risk Officer is responsible for establishing and overseeing our Operational Risk Management Program. In accordance with Basel III Advanced Approaches requirements, the program establishes practices for assessing the operational risk profile and executing key control processes for operational risks. Corporate Operational Risk Management enforces these practices and delivers reporting of operational risk results to senior business leaders, the executive committee and the Board of Directors.

Reputation Risk Management

We recognize that reputation risk is of particular concern for financial institutions and, increasingly, technology companies, in the current environment. Areas of concern have expanded to include company policies, practices and values and, with the growing use of social and digital platforms, public corporations face a new level of scrutiny and channels for activism and advocacy. The heightened expectations of internal and external stakeholders have made corporate culture, values and conduct pressure points for individuals and advocates voicing concerns or seeking change. We manage both strategic and tactical reputation issues and build our relationships with government officials, media, community and consumer advocates, customers and other constituencies to help strengthen the reputations of both our company and industry. Our actions include implementing pro-customer practices in our business and serving low to moderate income communities in our market area consistent with a quality bank and an innovative technology leader. The Executive Vice President of External Affairs is responsible for managing our overall reputation risk program. Day-to-day activities are controlled by the frameworks set forth in our Reputation Risk Management Policy and other risk management policies.

Strategic Risk Management

We monitor external market and industry developments to identify potential areas of strategic opportunity or risk. These items provide input for development of the Company's strategy led by the Chief Executive Officer and other senior executives. Through the ongoing development and vetting of the corporate strategy, the Chief Risk Officer identifies and assesses risks associated with the strategy across all risk categories and monitors them throughout the year.

CREDIT RISK PROFILE

Our loan portfolio accounts for the substantial majority of our credit risk exposure. Our lending activities are governed under our credit policy and are subject to independent review and approval. Below we provide information about the composition of our loan portfolio, key concentrations and credit performance metrics.

We also engage in certain non-lending activities that may give rise to credit and counterparty settlement risk, including the purchase of securities for our investment securities portfolio, entering into derivative transactions to manage our market risk exposure and to accommodate customers, short-term advances on syndication activity (including bridge financing transactions we have underwritten), certain operational cash balances in other financial institutions, foreign exchange transactions and customer overdrafts. We provide additional information on credit risk related to our investment securities portfolio under "MD&A—Consolidated Balance Sheets Analysis—Investment Securities" and credit risk related to derivative transactions in "Note 10—Derivative Instruments and Hedging Activities."

Primary Loan Products

We provide a variety of lending products. Our primary loan products include credit cards, auto loans and commercial lending products. We sold all of our consumer home loan portfolio and the related servicing during 2018.

- *Credit cards:* We originate both prime and subprime credit cards through a variety of channels. Our credit cards generally have variable interest rates. Credit card accounts are primarily underwritten using an automated underwriting system based on predictive models that we have developed. The underwriting criteria, which are customized for individual products and marketing programs, are established based on an analysis of the net present value of expected revenues, expenses and losses, subject to further analysis using a variety of stress conditions. Underwriting decisions are generally based on credit bureau

information, including payment history, debt burden and credit scores, such as FICO, and on other factors, such as applicant income. We maintain a credit card securitization program and selectively sell charged-off credit card loans.

- *Auto:* We originate both prime and subprime auto loans through a network of auto dealers and direct marketing. Our auto loans generally have fixed interest rates and loan terms of 75 months or less, but can go up to 84 months. Loan size limits are customized by program and are generally less than \$75,000. Similar to credit card accounts, the underwriting criteria are customized for individual products and marketing programs and based on analysis of net present value of expected revenues, expenses and losses, subject to maintaining resilience under a variety of stress conditions. Underwriting decisions are generally based on an applicant's income, estimated debt-to-income ratio, and credit bureau information, along with collateral characteristics such as loan-to-value ("LTV") ratio. We generally retain all of our auto loans, though we have securitized and sold auto loans in the past and may do so in the future.
- *Commercial:* We offer a range of commercial lending products, including loans secured by commercial real estate and loans to middle market commercial and industrial companies. Our commercial loans may have a fixed or variable interest rate; however, the majority of our commercial loans have variable rates. Our underwriting standards require an analysis of the borrower's financial condition and prospects, as well as an assessment of the industry in which the borrower operates. Where relevant, we evaluate and appraise underlying collateral and guarantees. We maintain underwriting guidelines and limits for major types of borrowers and loan products that specify, where applicable, guidelines for debt service coverage, leverage, LTV ratio and standard covenants and conditions. We assign a risk rating and establish a monitoring schedule for loans based on the risk profile of the borrower, industry segment, source of repayment, the underlying collateral and guarantees, if any, and current market conditions. Although we generally retain commercial loans, we may syndicate positions for risk mitigation purposes, including bridge financing transactions we have underwritten. In addition, we originate and service multifamily commercial real estate loans which are sold to government-sponsored enterprises.

Loans Held for Investment Portfolio Composition

Our loan portfolio consists of loans held for investment, including loans held in our consolidated trusts, and loans held for sale. Table 16 presents the composition of our portfolio of loans held for investment by portfolio segment as of December 31, 2018 and 2017. Table 16 and the credit metrics presented in this section exclude loans held for sale, which are carried at lower of cost or fair value and totaled \$1.2 billion and \$971 million as of December 31, 2018 and 2017, respectively.

Table 16: Loans Held for Investment Portfolio Composition

<i>(Dollars in millions)</i>	December 31, 2018		December 31, 2017	
	Loans	% of Total	Loans	% of Total
Credit Card:				
Domestic credit card	\$ 107,350	43.6%	\$ 105,293	41.4%
International card businesses	9,011	3.7	9,469	3.7
Total credit card	116,361	47.3	114,762	45.1
Consumer Banking:				
Auto	56,341	22.9	53,991	21.2
Home loan	—	—	17,633	6.9
Retail banking	2,864	1.2	3,454	1.4
Total consumer banking	59,205	24.1	75,078	29.5
Commercial Banking:				
Commercial and multifamily real estate	28,899	11.8	26,150	10.3
Commercial and industrial	41,091	16.7	38,025	14.9
Total commercial lending	69,990	28.5	64,175	25.2
Small-ticket commercial real estate	343	0.1	400	0.2
Total commercial banking	70,333	28.6	64,575	25.4
Other loans	—	—	58	—
Total loans held for investment	\$ 245,899	100.0%	\$ 254,473	100.0%

We market our credit card products throughout the United States, Canada and the United Kingdom. Our credit card loan portfolio is geographically diversified due to our product and marketing approach, with higher concentrations in California, Texas, New York, Florida, Illinois, Pennsylvania and Ohio.

Our auto loan portfolio is originated in most regions of the United States with a concentration in Texas, California, Florida, Georgia, Ohio, Louisiana and Illinois. Retail banking includes small business loans and other consumer lending products originated through our branch network with a concentration in New York, Louisiana, Texas, New Jersey, Maryland and Virginia.

Our commercial banking loan portfolio is originated in most regions of the United States with a concentration in the tri-state area of New York, New Jersey and Connecticut, as well as in Texas, California and Virginia.

We provide additional information on the geographic concentration, by loan category, of our loan portfolio in "Note 4—Loans."

Commercial Loans

Table 17 summarizes our commercial loans held for investment portfolio by industry classification as of December 31, 2018 and 2017. Industry classifications below are based on our interpretation of the North American Industry Classification System codes as they pertain to each individual loan.

Table 17: Commercial Loans by Industry

<i>(Percentage of portfolio)</i>	December 31, 2018	December 31, 2017
Real estate	40%	41%
Finance	16	13
Healthcare	12	14
Business services	5	5
Oil and gas	5	4
Public administration	4	4
Educational services	4	4
Retail trade	3	3
Construction and land	2	3
Other	9	9
Total	100%	100%

Loan Maturity Profile

Table 18 presents the maturities of our loans held for investment portfolio as of December 31, 2018.

Table 18: Loan Maturity Schedule

<i>(Dollars in millions)</i>	December 31, 2018			
	Due Up to 1 Year	> 1 Year to 5 Years	> 5 Years	Total
Fixed rate:				
Credit card ⁽¹⁾	\$ 1,145	\$ 14,525	—	\$ 15,670
Consumer banking	675	37,205	\$ 20,219	58,099
Commercial banking	915	5,755	7,866	14,536
Total fixed-rate loans	2,735	57,485	28,085	88,305
Variable rate:				
Credit card ⁽¹⁾	100,690	1	—	100,691
Consumer banking	1,092	13	1	1,106
Commercial banking	55,437	356	4	55,797
Total variable-rate loans	157,219	370	5	157,594
Total loans	\$ 159,954	\$ 57,855	\$ 28,090	\$ 245,899

⁽¹⁾ Due to the revolving nature of credit card loans, we report the majority of our variable-rate credit card loans as due in one year or less. We report fixed-rate credit card loans with introductory rates that expire after a certain period of time as due in one year or less. We assume that the rest of our remaining fixed-rate credit card loans will mature within one to three years.

Credit Risk Measurement

We closely monitor economic conditions and loan performance trends to assess and manage our exposure to credit risk. Key metrics we track in evaluating the credit quality of our loan portfolio include delinquency and nonperforming asset rates, as well as net charge-off rates and our internal risk ratings of larger-balance commercial loans. Trends in delinquency rates are one of the primary indicators of credit risk within our consumer loan portfolios, particularly in our credit card loan portfolios, as changes in delinquency rates can provide an early warning of changes in credit losses. The primary indicator of credit risk in our commercial loan portfolios is our internal risk ratings. Because we generally classify loans that have been delinquent for an extended period of time and other loans with significant risk of loss as nonperforming, the level of nonperforming assets represents another indicator of the potential for future credit losses. In addition to delinquency rates, the geographic distribution of our loans provides insight as to the exposure of the portfolio to regional economic conditions.

We underwrite most consumer loans using proprietary models, which are typically based on credit bureau data, including borrower credit scores, along with application information and, where applicable, collateral and deal structure data. We continuously adjust our management of credit lines and collection strategies based on customer behavior and risk profile changes. We also use borrower credit scores for subprime classification, for competitive benchmarking and, in some cases, to drive product segmentation decisions.

Table 19 provides details on the credit scores of our domestic credit card and auto loans held for investment portfolios as of December 31, 2018 and 2017.

Table 19: Credit Score Distribution

<i>(Percentage of portfolio)</i>	December 31, 2018	December 31, 2017
Domestic credit card—Refreshed FICO scores:⁽¹⁾		
Greater than 660	67%	66%
660 or below	33	34
Total	100%	100%
Auto—At origination FICO scores:⁽²⁾		
Greater than 660	50%	51%
621 - 660	19	18
620 or below	31	31
Total	100%	100%

⁽¹⁾ Percentages represent period-end loans held for investment in each credit score category. Domestic card credit scores generally represent FICO scores. These scores are obtained from one of the major credit bureaus at origination and are refreshed monthly thereafter. We approximate non-FICO credit scores to comparable FICO scores for consistency purposes. Balances for which no credit score is available or the credit score is invalid are included in the 660 or below category.

⁽²⁾ Percentages represent period-end loans held for investment in each credit score category. Auto credit scores generally represent average FICO scores obtained from three credit bureaus at the time of application and are not refreshed thereafter. Balances for which no credit score is available or the credit score is invalid are included in the 620 or below category.

We present information in the section below on the credit performance of our loan portfolio, including the key metrics we use in tracking changes in the credit quality of our loan portfolio.

See “Note 4—Loans” in this Report for additional credit quality information, and see “Note 1—Summary of Significant Accounting Policies” for information on our accounting policies for delinquent and nonperforming loans, charge-offs and troubled debt restructurings (“TDRs”) for each of our loan categories.

Delinquency Rates

We consider the entire balance of an account to be delinquent if the minimum required payment is not received by the customer’s due date, measured at each balance sheet date. Our 30+ day delinquency metrics include all loans held for investment that are 30 or more days past due, whereas our 30+ day performing delinquency metrics include loans that are 30 or more days past due but are currently classified as performing and accruing interest. The 30+ day delinquency and 30+ day performing delinquency metrics are the same for domestic credit card loans, as we continue to classify these loans as performing until the account is charged off, typically when the account is 180 days past due. See “Note 1—Summary of Significant Accounting Policies” for information on

our policies for classifying loans as nonperforming for each of our loan categories. We provide additional information on our credit quality metrics above under “MD&A—Business Segment Financial Performance.”

Table 20 presents our 30+ day performing delinquency rates and 30+ day delinquency rates of our portfolio of loans held for investment, by portfolio segment, as of December 31, 2018 and 2017.

Table 20: 30+ Day Delinquencies

<i>(Dollars in millions)</i>	December 31, 2018				December 31, 2017			
	30+ Day Performing Delinquencies		30+ Day Delinquencies		30+ Day Performing Delinquencies		30+ Day Delinquencies	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Credit Card:								
Domestic credit card	\$ 4,335	4.04%	\$ 4,335	4.04%	\$ 4,219	4.01%	\$ 4,219	4.01%
International card businesses	317	3.52	333	3.70	344	3.64	359	3.80
Total credit card	4,652	4.00	4,668	4.01	4,563	3.98	4,578	3.99
Consumer Banking:								
Auto	3,918	6.95	4,309	7.65	3,513	6.51	3,840	7.11
Home loan	—	—	—	—	35	0.20	123	0.70
Retail banking	29	1.01	51	1.77	26	0.76	47	1.35
Total consumer banking	3,947	6.67	4,360	7.36	3,574	4.76	4,010	5.34
Commercial Banking:								
Commercial and multifamily real estate	119	0.41	140	0.49	69	0.26	107	0.41
Commercial and industrial	176	0.43	279	0.68	18	0.05	158	0.42
Total commercial lending	295	0.42	419	0.60	87	0.14	265	0.41
Small-ticket commercial real estate	1	0.39	7	1.84	1	0.21	7	1.55
Total commercial banking	296	0.42	426	0.61	88	0.14	272	0.42
Other loans	—	—	—	—	2	3.28	4	6.29
Total	\$ 8,895	3.62	\$ 9,454	3.84	\$ 8,227	3.23	\$ 8,864	3.48

⁽¹⁾ Delinquency rates are calculated by dividing delinquency amounts by period-end loans held for investment for each specified loan category, including purchased credit-impaired (“PCI”) loans as applicable.

Table 21 presents our 30+ day delinquent loans, by aging and geography, as of December 31, 2018 and 2017.

Table 21: Aging and Geography of 30+ Day Delinquent Loans

<i>(Dollars in millions)</i>	December 31, 2018		December 31, 2017	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Delinquency status:				
30 – 59 days	\$ 4,282	1.73%	\$ 3,945	1.55%
60 – 89 days	2,430	0.99	2,166	0.85
≥ 90 days	2,742	1.12	2,753	1.08
Total	\$ 9,454	3.84%	\$ 8,864	3.48%
Geographic region:				
Domestic	\$ 9,121	3.70%	\$ 8,505	3.34%
International	333	0.14	359	0.14
Total	\$ 9,454	3.84%	\$ 8,864	3.48%

⁽¹⁾ Delinquency rates are calculated by dividing delinquency amounts by total period-end loans held for investment, including PCI loans as applicable.

Table 22 summarizes loans that were 90+ days delinquent as to interest or principal, and still accruing interest as of December 31, 2018 and 2017. These loans consist primarily of credit card accounts between 90 days and 179 days past due. As permitted by regulatory guidance issued by the Federal Financial Institutions Examination Council, we continue to accrue interest and fees on domestic credit card loans through the date of charge-off, which is typically in the period the account becomes 180 days past due. While domestic credit card loans typically remain on accrual status until the loan is charged off, we reduce the balance of our credit card receivables by the amount of finance charges and fees billed but not expected to be collected and exclude this amount from revenue.

Table 22: 90+ Day Delinquent Loans Accruing Interest

<i>(Dollars in millions)</i>	December 31, 2018		December 31, 2017	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Loan category:				
Credit card	\$ 2,233	1.92%	\$ 2,221	1.94%
Commercial banking	—	—	12	0.02
Total	<u>\$ 2,233</u>	<u>0.91</u>	<u>\$ 2,233</u>	<u>0.88</u>
Geographic region:				
Domestic	\$ 2,111	0.89	\$ 2,105	0.86
International	122	1.35	128	1.35
Total	<u>\$ 2,233</u>	<u>0.91</u>	<u>\$ 2,233</u>	<u>0.88</u>

⁽¹⁾ Delinquency rates are calculated by dividing delinquency amounts by period-end loans held for investment for each specified loan category, including PCI loans as applicable.

Nonperforming Loans and Nonperforming Assets

Nonperforming assets consist of nonperforming loans, foreclosed properties, repossessed assets, and the net realizable value of certain partially charged off auto loans. Nonperforming loans include loans that have been placed on nonaccrual status. See “Note 1—Summary of Significant Accounting Policies” for information on our policies for classifying loans as nonperforming for each of our loan categories.

Table 23 presents comparative information on nonperforming loans, by portfolio segment, and other nonperforming assets as of December 31, 2018 and 2017. We do not classify loans held for sale as nonperforming, as they are recorded at the lower of cost or fair value. We provide additional information on our credit quality metrics above under “MD&A—Business Segment Financial Performance.”

Table 23: Nonperforming Loans and Other Nonperforming Assets⁽¹⁾

<i>(Dollars in millions)</i>	December 31, 2018		December 31, 2017	
	Amount	Rate	Amount	Rate
Nonperforming loans held for investment:⁽²⁾				
Credit Card:				
International card businesses	\$ 22	0.25%	\$ 24	0.25%
Total credit card	22	0.02	24	0.02
Consumer Banking:				
Auto ⁽³⁾	449	0.80	376	0.70
Home loan	—	—	176	1.00
Retail banking	30	1.04	35	1.00
Total consumer banking	479	0.81	587	0.78
Commercial Banking:				
Commercial and multifamily real estate	83	0.29	38	0.15
Commercial and industrial	223	0.54	239	0.63
Total commercial lending	306	0.44	277	0.43
Small-ticket commercial real estate	6	1.80	7	1.65
Total commercial banking	312	0.44	284	0.44
Other loans	—	—	4	7.71
Total nonperforming loans held for investment ⁽⁴⁾	\$ 813	0.33	\$ 899	0.35
Other nonperforming assets:⁽⁵⁾				
Foreclosed property	\$ 2	—	\$ 88	0.03
Other assets ⁽³⁾	57	0.02	65	0.03
Total other nonperforming assets	59	0.02	153	0.06
Total nonperforming assets	\$ 872	0.35	\$ 1,052	0.41

⁽¹⁾ We recognized interest income for loans classified as nonperforming of \$60 million and \$52 million in 2018 and 2017, respectively. Interest income foregone related to nonperforming loans was \$53 million and \$44 million in 2018 and 2017, respectively. Foregone interest income represents the amount of interest income that would have been recorded during the period for nonperforming loans as of the end of the period had the loans performed according to their contractual terms.

⁽²⁾ Nonperforming loan rates are calculated based on nonperforming loans for each category divided by period-end total loans held for investment for each respective category.

⁽³⁾ Beginning in the first quarter of 2017, partially charged-off auto loans previously presented within other assets were prospectively included within loans held for investment. Other assets includes repossessed assets obtained in satisfaction of auto loans and the net realizable value of certain partially charged-off auto loans, which will continue to decline over time.

⁽⁴⁾ Excluding the impact of domestic credit card loans, nonperforming loans as a percentage of total loans held for investment was 0.59% and 0.60% as of December 31, 2018 and 2017, respectively.

⁽⁵⁾ The denominators used in calculating nonperforming asset rates consist of total loans held for investment and total other nonperforming assets.

Net Charge-Offs

Net charge-offs consist of the unpaid principal balance of loans held for investment that we determine to be uncollectible, net of recovered amounts. We charge off loans as a reduction to the allowance for loan and lease losses when we determine the loan is uncollectible and record subsequent recoveries of previously charged-off amounts as increases to the allowance for loan and lease losses. Uncollectible finance charges and fees are reversed through revenue and certain fraud losses are recorded in other non-interest expense. Generally, costs to recover charged-off loans are recorded as collection expenses as incurred and included in our consolidated statements of income as a component of other non-interest expense. Our charge-off policy for loans varies based on the loan type. See “Note 1—Summary of Significant Accounting Policies” for information on our charge-off policy for each of our loan categories.

Table 24 presents our net charge-off amounts and rates, by portfolio segment, in 2018, 2017 and 2016.

Table 24: Net Charge-Offs (Recoveries)

<i>(Dollars in millions)</i>	Year Ended December 31,					
	2018		2017		2016	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Credit Card:						
Domestic credit card	\$ 4,782	4.74 %	\$ 4,739	4.99%	\$ 3,681	4.16 %
International card businesses	287	3.19	315	3.69	272	3.33
Total credit card	5,069	4.62	5,054	4.88	3,953	4.09
Consumer Banking:						
Auto	912	1.64	957	1.86	752	1.69
Home loan	(1)	(0.02)	15	0.08	14	0.06
Retail banking	70	2.26	66	1.92	54	1.53
Total consumer banking	981	1.51	1,038	1.39	820	1.15
Commercial Banking:						
Commercial and multifamily real estate	2	0.01	1	—	(3)	(0.01)
Commercial and industrial	54	0.14	463	1.17	293	0.75
Total commercial lending	56	0.08	464	0.69	290	0.45
Small-ticket commercial real estate	—	0.02	1	0.24	2	0.30
Total commercial banking	56	0.08	465	0.69	292	0.45
Other loans	6	34.09	5	9.70	(3)	(3.89)
Total net charge-offs	\$ 6,112	2.52	\$ 6,562	2.67	\$ 5,062	2.17
Average loans held for investment	\$ 242,118		\$ 245,565		\$ 233,272	

⁽¹⁾ Net charge-off rate is calculated by dividing net charge-offs (recoveries) by average loans held for investment for the period for each loan category.

Troubled Debt Restructurings

As part of our loss mitigation efforts, we may provide short-term (three to twelve months) or long-term (greater than twelve months) modifications to a borrower experiencing financial difficulty to improve long-term collectability of the loan and to avoid the need for foreclosure or repossession of collateral.

Table 25 presents our recorded investment of loans modified in TDRs as of December 31, 2018 and 2017, which excludes loan modifications that do not meet the definition of a TDR, and PCI loans, which we track and report separately.

Table 25: Troubled Debt Restructurings

<i>(Dollars in millions)</i>	December 31, 2018		December 31, 2017	
	Amount	% of Total Modifications	Amount	% of Total Modifications
Credit card	\$ 855	53.2%	\$ 812	36.9%
Consumer banking:				
Auto	339	21.1	481	21.9
Home loan	—	—	192	8.7
Retail banking	33	2.1	37	1.7
Total consumer banking	372	23.2	710	32.3
Commercial banking	379	23.6	679	30.8
Total	\$ 1,606	100.0%	\$ 2,201	100.0%
Status of TDRs:				
Performing	\$ 1,433	89.2%	\$ 1,850	84.1%
Nonperforming	173	10.8	351	15.9
Total	\$ 1,606	100.0%	\$ 2,201	100.0%

In our Credit Card business, the majority of our credit card loans modified in TDRs involve reducing the interest rate on the account and placing the customer on a fixed payment plan not exceeding 60 months. The effective interest rate in effect immediately prior to the loan modification is used as the effective interest rate for purposes of measuring impairment using the present value of expected cash flows. If the customer does not comply with the modified payment terms, then the credit card loan agreement may revert to its original payment terms, generally resulting in any loan outstanding reflected in the appropriate delinquency category and charged off in accordance with our standard charge-off policy.

In our Consumer Banking business, the majority of our loans modified in TDRs receive an extension, an interest rate reduction or principal reduction, or a combination of these concessions. In addition, TDRs also occur in connection with bankruptcy of the borrower. In certain bankruptcy discharges, the loan is written down to the collateral value and the charged-off amount is reported as principal reduction. Impairment is determined using the present value of expected cash flows or a collateral evaluation for certain auto and home loans where the collateral value is lower than the recorded investment.

In our Commercial Banking business, the majority of loans modified in TDRs receive an extension, with a portion of these loans receiving an interest rate reduction or a gross balance reduction. The impairment on modified commercial loans is generally determined based on the underlying collateral value.

We provide additional information on modified loans accounted for as TDRs, including the performance of those loans subsequent to modification, in "Note 4—Loans."

Impaired Loans

A loan is considered to be impaired when, based on current information and events, it is probable that we will be unable to collect all amounts due from the borrower in accordance with the original contractual terms of the loan. Generally, we report loans as impaired based on the method for measuring impairment in accordance with applicable accounting guidance. Loans defined as individually impaired include larger-balance commercial nonperforming loans and TDRs. Loans held for sale are not reported as impaired, as these loans are recorded at lower of cost or fair value. Impaired loans also exclude PCI loans, which are accounted for based on expected cash flows because this accounting methodology takes into consideration future credit losses expected to be incurred.

Impaired loans totaled \$1.8 billion and \$2.4 billion as of December 31, 2018 and 2017, respectively. These amounts include TDRs of \$1.6 billion and \$2.2 billion as of December 31, 2018 and 2017, respectively. We provide additional information on our impaired loans, including the allowance for loan and lease losses established for these loans, in “Note 4—Loans” and “Note 5—Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments.”

Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments

Our allowance for loan and lease losses represents management’s best estimate of incurred loan and lease credit losses inherent to our held for investment portfolio as of each balance sheet date. The allowance for loan and lease losses is increased through the provision for credit losses and reduced by net charge-offs. We provide additional information on the methodologies and key assumptions used in determining our allowance for loan and lease losses under “Note 1—Summary of Significant Accounting Policies.”

Table 26 presents changes in our allowance for loan and lease losses and reserve for unfunded lending commitments for 2018 and 2017, and details by portfolio segment for the provision for credit losses, charge-offs and recoveries.

Table 26: Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments Activity

(Dollars in millions)	Credit Card			Consumer Banking					Commercial Banking	Other(3)	Total
	Domestic Card	International Card Businesses	Total Credit Card	Auto	Home Loan	Retail Banking	Total Consumer Banking				
Allowance for loan and lease losses:											
Balance as of December 31, 2016	\$ 4,229	\$ 377	\$ 4,606	\$ 957	\$ 65	\$ 80	\$ 1,102	\$ 793	\$ 2	\$ 6,503	
Charge-offs	(5,844)	(477)	(6,321)	(1,573)	(22)	(82)	(1,677)	(481)	(34)	(8,513)	
Recoveries ⁽²⁾	1,105	162	1,267	616	7	16	639	16	29	1,951	
Net charge-offs	(4,739)	(315)	(5,054)	(957)	(15)	(66)	(1,038)	(465)	(5)	(6,562)	
Provision for loan and lease losses	5,783	283	6,066	1,119	10	51	1,180	313	4	7,563	
Allowance build (release) for loan and lease losses	1,044	(32)	1,012	162	(5)	(15)	142	(152)	(1)	1,001	
Other changes ⁽⁴⁾	—	30	30	—	(2)	—	(2)	(30)	—	(2)	
Balance as of December 31, 2017	5,273	375	5,648	1,119	58	65	1,242	611	1	7,502	
Reserve for unfunded lending commitments:											
Balance as of December 31, 2016	—	—	—	—	—	7	7	129	—	136	
Benefit for losses on unfunded lending commitments	—	—	—	—	—	—	—	(12)	—	(12)	
Balance as of December 31, 2017	—	—	—	—	—	7	7	117	—	124	
Combined allowance and reserve as of December 31, 2017	\$ 5,273	\$ 375	\$ 5,648	\$ 1,119	\$ 58	\$ 72	\$ 1,249	\$ 728	\$ 1	\$ 7,626	
Allowance for loan and lease losses:											
Balance as of December 31, 2017	\$ 5,273	\$ 375	\$ 5,648	\$ 1,119	\$ 58	\$ 65	\$ 1,242	\$ 611	\$ 1	\$ 7,502	
Charge-offs	(6,152)	(505)	(6,657)	(1,746)	—	(86)	(1,832)	(119)	(7)	(8,615)	
Recoveries ⁽²⁾	1,370	218	1,588	834	1	16	851	63	1	2,503	
Net charge-offs	(4,782)	(287)	(5,069)	(912)	1	(70)	(981)	(56)	(6)	(6,112)	
Provision (benefit) for loan and lease losses	4,653	331	4,984	783	(6)	64	841	82	(49)	5,858	
Allowance build (release) for loan and lease losses	(129)	44	(85)	(129)	(5)	(6)	(140)	26	(55)	(254)	
Other changes ⁽¹⁾⁽⁴⁾	—	(28)	(28)	—	(53)	(1)	(54)	—	54	(28)	
Balance as of December 31, 2018	5,144	391	5,535	990	—	58	1,048	637	—	7,220	
Reserve for unfunded lending commitments:											
Balance as of December 31, 2017	—	—	—	—	—	7	7	117	—	124	
Provision (benefit) for losses on unfunded lending commitments	—	—	—	—	—	(3)	(3)	1	—	(2)	
Balance as of December 31, 2018	—	—	—	—	—	4	4	118	—	122	
Combined allowance and reserve as of December 31, 2018	\$ 5,144	\$ 391	\$ 5,535	\$ 990	\$ —	\$ 62	\$ 1,052	\$ 755	\$ —	\$ 7,342	

⁽¹⁾ In 2018, we sold all of our consumer home loan portfolio and recognized a gain of approximately \$499 million in the Other category, including a benefit for credit losses of \$46 million.

⁽²⁾ Includes the legacy loan portfolio of our discontinued GreenPoint mortgage operations.

⁽³⁾ The amount and timing of recoveries is impacted by our collection strategies, which are based on customer behavior and risk profile and include direct customer communications, repossession of collateral, the periodic sale of charged-off loans as well as additional strategies, such as litigation.

⁽⁴⁾ Represents foreign currency translation adjustments and the net impact of loan transfers and sales where applicable.

Allowance coverage ratios are calculated based on the allowance for loan and lease losses for each specified portfolio segment divided by period-end loans held for investment within the specified loan category. Table 27 presents the allowance coverage ratios as of December 31, 2018 and 2017.

Table 27: Allowance Coverage Ratios

<i>(Dollars in millions)</i>	December 31, 2018			December 31, 2017		
	Allowance for loan and lease losses	Amount ⁽¹⁾	Allowance coverage ratio	Allowance for loan and lease losses	Amount ⁽¹⁾	Allowance coverage ratio
Credit Card	\$ 5,535	\$ 4,668	118.56%	\$ 5,648	\$ 4,578	123.36%
Consumer banking	1,048	4,360	24.04	1,242	4,010	30.95
Commercial banking	637	312	204.25	611	284	215.14
Total	7,220	245,899	2.94	7,502	254,473	2.95

⁽¹⁾ Represents period-end 30+ day delinquent loans for our credit card and consumer banking loan portfolios, nonperforming loans for our commercial banking loan portfolio and total loans held for investment for the total ratio.

Our allowance for loan and lease losses decreased by \$282 million to \$7.2 billion as of December 31, 2018 compared to December 31, 2017 primarily driven by allowance releases in our domestic credit card and auto loan portfolios largely due to improvements in credit trends.

The allowance coverage ratio remained substantially flat at 2.94% as of December 31, 2018 from December 31, 2017 as allowance releases in our domestic credit card and auto loan portfolios were offset by lower loan balances largely due to the sale of our consumer home loan portfolio.

LIQUIDITY RISK PROFILE

We have established liquidity practices that are intended to ensure that we have sufficient asset-based liquidity to cover our funding requirements and maintain adequate reserves to withstand the potential impact of deposit attrition or diminished liquidity in the funding markets. In addition to our cash position, we maintain reserves in the form of available for sale securities, held to maturity securities and certain loans that are either readily-marketable or pledgeable.

Table 28 below presents the composition of our liquidity reserves as of December 31, 2018 and 2017.

Table 28: Liquidity Reserves

<i>(Dollars in millions)</i>	December 31, 2018	December 31, 2017
Cash and cash equivalents	\$ 13,186	\$ 14,040
Investment securities portfolio:		
Investment securities available for sale, at fair value	46,150	37,655
Investment securities held to maturity, at fair value	36,619	29,437
Total investment securities portfolio	82,769	67,092
FHLB borrowing capacity secured by loans	10,003	20,927
Outstanding FHLB advances and letters of credit secured by loans	(9,726)	(9,115)
Investment securities encumbered for Public Funds and others	(6,631)	(8,619)
Total liquidity reserves	\$ 89,601	\$ 84,325

Our liquidity reserves increased by \$5.3 billion to \$89.6 billion as of December 31, 2018 from December 31, 2017 primarily driven by an increase in our investment securities portfolio. The increase in our investment securities portfolio and the decrease in our FHLB borrowing capacity secured by loans were primarily due to the sale of our consumer home loan portfolio during 2018. See “MD&A—Risk Management” for additional information on our management of liquidity risk.

Liquidity Coverage Ratio

We are subject to the Liquidity Coverage Ratio Rule (“LCR Rule”) as implemented by the Federal Reserve and OCC. The LCR Rule requires us to calculate our LCR daily and to publicly disclose, on a quarterly basis, our LCR, certain related quantitative liquidity metrics, and a qualitative discussion of our LCR. Our average LCR during the fourth quarter of 2018 exceeded the LCR requirement of 100%. The calculation and the underlying components are based on our interpretations, expectations and assumptions of relevant regulations, as well as interpretations provided by our regulators, and are subject to change based on changes to future regulations and interpretations. See “Part I—Item 1. Business—Supervision and Regulation” for additional information.

Borrowing Capacity

We maintain a shelf registration with the SEC that we may periodically offer and sell an indeterminate aggregate amount of senior or subordinated debt securities, preferred stock, depository shares, common stock, purchase contracts, warrants and units. There is no limit under this shelf registration to the amount or number of such securities that we may offer and sell, subject to market conditions. In addition, we also maintain a shelf registration that allows us to periodically offer and sell up to \$25 billion of securitized debt obligations from our credit card loan securitization trust and a shelf registration that allows us to periodically offer and sell up to \$20 billion in securitized auto loans.

In addition to our issuance capacity under the shelf registration statements, we also have access to FHLB advances. The ability to draw down funding is based on membership status and the amount is dependent upon the Banks’ ability to post collateral. As of December 31, 2018, we pledged both loans and securities to FHLB to secure a maximum borrowing capacity of \$19.3 billion, of which \$9.5 billion was still available to us to borrow. Our FHLB membership is supported by our investment in FHLB stock of \$415 million and \$360 million as of December 31, 2018 and 2017, respectively, which was determined in part based on our outstanding advances. In addition, we have access to the Federal Reserve Discount Window through which we had a borrowing capacity of \$7.6 billion as of December 31, 2018. Our membership with the Federal Reserve is supported by our investment in Federal Reserve stock, totaling \$1.3 billion and \$1.2 billion as of December 31, 2018 and 2017, respectively.

Funding

Our primary source of funding comes from deposits, which provide a stable and relatively low cost of funds. In addition to deposits, we raise funding through the issuance of senior and subordinated notes, securitized debt obligations and brokered deposits, as well as federal funds purchased, securities loaned or sold under agreements to repurchase, and FHLB advances secured by certain portions of our loan and securities portfolios. A key objective in our use of these markets is to maintain access to a diversified mix of wholesale funding sources. See “MD&A—Consolidated Balance Sheets Analysis—Funding Sources Composition” for additional information on our primary sources of funding.

Deposits

Table 29 provides a comparison of average balances, interest expense and average deposit interest rates for the years ended December 31, 2018, 2017 and 2016.

Table 29: Deposits Composition and Average Deposits Interest Rates

	Year Ended December 31,								
	2018			2017			2016		
(Dollars in millions)	Average Balance	Interest Expense	Average Deposits Interest Rate	Average Balance	Interest Expense	Average Deposits Interest Rate	Average Balance	Interest Expense	Average Deposits Interest Rate
Interest-bearing checking accounts ⁽¹⁾	\$ 38,843	\$ 245	0.63%	\$ 44,537	\$ 227	0.51%	\$ 45,339	\$ 218	0.48%
Saving deposits ⁽²⁾	149,443	1,603	1.07	144,273	982	0.68	137,753	814	0.59
Time deposits less than \$100,000	25,535	606	2.37	21,030	337	1.60	12,062	144	1.19
Total interest-bearing core deposits	213,821	2,454	1.15	209,840	1,546	0.74	195,154	1,176	0.60
Time deposits of \$100,000 or more	7,672	143	1.87	3,661	54	1.50	2,511	35	1.39
Foreign deposits	267	1	0.41	448	2	0.38	639	2	0.35
Total interest-bearing deposits	\$ 221,760	\$ 2,598	1.17	\$ 213,949	\$ 1,602	0.75	\$ 198,304	\$ 1,213	0.61

⁽¹⁾ Includes negotiable order of withdrawal accounts.

⁽²⁾ Includes money market deposit accounts.

The FDIC limits the acceptance of brokered deposits by well-capitalized insured depository institutions and, with a waiver from the FDIC, by adequately-capitalized institutions. COBNA and CONA were well-capitalized, as defined under the federal banking regulatory guidelines, as of December 31, 2018 and 2017, respectively. See “Part I—Item 1. Business—Supervision and Regulation” for additional information. We provide additional information on the composition of deposits under “MD&A—Consolidated Balance Sheets Analysis—Funding Sources Composition” and in “Note 9—Deposits and Borrowings.”

Table 30 presents the contractual maturities of large-denomination domestic time deposits of \$100,000 or more as of December 31, 2018 and 2017. Our funding and liquidity management activities factor into the expected maturities of these deposits.

Table 30: Maturities of Large-Denomination Domestic Time Deposits—\$100,000 or More

	December 31,			
	2018		2017	
(Dollars in millions)	Amount	% of Total	Amount	% of Total
Up to three months	\$ 1,494	13.2%	\$ 577	13.3%
> 3 months to 6 months	3,034	26.7	469	10.8
> 6 months to 12 months	4,328	38.1	1,030	23.8
> 12 months	2,493	22.0	2,254	52.1
Total	\$ 11,349	100.0%	\$ 4,330	100.0%

Short-Term Borrowings and Long-Term Debt

We access the capital markets to meet our funding needs through the issuance of senior and subordinated notes, securitized debt obligations, and federal funds purchased and securities loaned or sold under agreements to repurchase. In addition, we may utilize short-term and long-term FHLB advances secured by certain of our investment securities, multifamily real estate loans, and commercial real estate loans. Substantially all of our long-term FHLB advances are structured with either a monthly or a quarterly call option at our discretion.

Our short-term borrowings include those borrowings with an original contractual maturity of one year or less and do not include the current portion of long-term debt. The short-term borrowings, which consist of short-term FHLB advances and federal funds purchased, securities loaned or sold under agreements to repurchase, increased by \$8.8 billion to \$9.4 billion as of December 31, 2018 from December 31, 2017 driven by an increase in our short-term FHLB advances outstanding.

Our long-term debt, which primarily consists of securitized debt obligations, senior and subordinated notes, and long-term FHLB advances, decreased by \$10.2 billion to \$49.5 billion as of December 31, 2018 from December 31, 2017, primarily driven by a decrease in our long-term FHLB advances outstanding and maturities in our securitized debt obligations.

The following table summarizes issuances of securitized debt obligations, senior and subordinated notes, and FHLB advances and their respective maturities or redemptions for the years ended December 31, 2018 and 2017.

Table 31: Long-Term Funding

	Issuances		Maturities/Redemptions	
	Year Ended December 31,		Year Ended December 31,	
	2018	2017	2018	2017
<i>(Dollars in millions)</i>				
Securitized debt obligations ⁽¹⁾	\$ 1,000	\$ 8,474	\$ 2,673	\$ 7,233
Senior and subordinated notes	5,250	10,300	5,055	2,804
FHLB advances	750	25,180	9,108	33,750
Total	\$ 7,000	\$ 43,954	\$ 16,836	\$ 43,787

⁽¹⁾ Includes \$2.5 billion of securitized debt assumed in the Cabela's acquisition for the year ended December 31, 2017.

Credit Ratings

Our credit ratings impact our ability to access capital markets and our borrowing costs. Rating agencies base their ratings on numerous factors, including liquidity, capital adequacy, asset quality, quality of earnings and the probability of systemic support. Significant changes in these factors could result in different ratings.

Table 32 provides a summary of the credit ratings for the senior unsecured long-term debt of Capital One Financial Corporation, COBNA and CONA as of December 31, 2018 and 2017.

Table 32: Senior Unsecured Long-Term Debt Credit Ratings

	December 31, 2018			December 31, 2017		
	Capital One Financial Corporation	COBNA	CONA	Capital One Financial Corporation	COBNA	CONA
Moody's	Baa1	Baa1	Baa1	Baa1	Baa1	Baa1
S&P	BBB	BBB+	BBB+	BBB	BBB+	BBB+
Fitch	A-	A-	A-	A-	A-	A-

As of February 15, 2019, Moody's Investors Service ("Moody's"), S&P and Fitch Ratings ("Fitch") have us on a stable outlook.

Contractual Obligations

In the normal course of business, we enter into various contractual obligations that may require future cash payments that affect our short-term and long-term liquidity and capital resource needs. Our future cash outflows primarily relate to deposits, borrowings and operating leases. Table 33 summarizes, by remaining contractual maturity, our significant contractual cash obligations as of December 31, 2018. The actual timing and amounts of future cash payments may differ from the amounts presented below due to a number of factors, such as discretionary debt repurchases. Table 33 excludes short-term obligations such as trade payables, commitments to fund certain equity investments, obligations for pension and post-retirement benefit plans, and representation and warranty reserves, which are discussed in more detail in "Note 6—Variable Interest Entities and Securitizations," "Note 15—Employee Benefit Plans" and "Note 19—Commitments, Contingencies, Guarantees and Others."

Table 33: Contractual Obligations

<i>(Dollars in millions)</i>	December 31, 2018				
	Up to 1 Year	> 1 Years to 3 Years	> 3 Years to 5 Years	> 5 Years	Total
Interest-bearing time deposits ⁽¹⁾⁽²⁾	\$ 22,548	\$ 10,589	\$ 5,212	\$ 122	\$ 38,471
Securitized debt obligations ⁽²⁾	6,845	7,564	3,245	653	18,307
Other debt:					
Federal funds purchased and securities loaned or sold under agreements to repurchase	352	—	—	—	352
Senior and subordinated notes	5,314	9,270	6,667	9,575	30,826
Other borrowings ⁽³⁾	9,060	316	11	33	9,420
Total other debt ⁽²⁾	14,726	9,586	6,678	9,608	40,598
Operating leases	352	588	462	949	2,351
Purchase obligations ⁽⁴⁾	357	427	91	131	1,006
Total	\$ 44,828	\$ 28,754	\$ 15,688	\$ 11,463	\$ 100,733

⁽¹⁾ Includes only those interest-bearing deposits which have a contractual maturity date.

⁽²⁾ These amounts represent the carrying value of the obligations and do not include amounts related to contractual interest obligations. Total contractual interest obligations were approximately \$5.7 billion as of December 31, 2018, and represent forecasted net interest payments based on interest rates as of December 31, 2018. These forecasts use the contractual maturity date of each liability and include the impact of hedge accounting where applicable.

⁽³⁾ Other borrowings primarily consists of FHLB advances.

⁽⁴⁾ Represents substantial agreements to purchase goods or services that are enforceable and legally binding and specify all significant terms. Purchase obligations are included through the termination date of the agreements even if the contract is renewable.

MARKET RISK PROFILE

Market risk is inherent in the financial instruments associated with our operations and activities, including loans, deposits, securities, short-term borrowings, long-term debt and derivatives. Below we provide additional information about our primary sources of market risk, our market risk management strategies and the measures we use to evaluate our market risk exposure.

Primary Market Risk Exposures

Our primary source of market risk is interest rate risk. We also have exposure to foreign exchange risk and customer-related trading risk, both of which we believe are minimal after considering the impact of our associated risk management activities discussed below.

Interest Rate Risk

Interest rate risk, which represents exposure to instruments whose yield or price varies with the volatility of interest rates, is our most significant source of market risk exposure. Banks are inevitably exposed to interest rate risk due to differences in the timing between the maturities or re-pricing of assets and liabilities.

Foreign Exchange Risk

Foreign exchange risk represents exposure to changes in the values of current holdings and future cash flows denominated in other currencies. Our primary exposure to foreign exchange risk is related to the operations of our international businesses in the U.K. and Canada. The largest foreign exchange exposure arising from these operations is the funding they are provided in the Great British pound ("GBP") and the Canadian dollar ("CAD"), respectively. We also have foreign exchange exposure through our net equity investments in these operations and through the dollar-denominated value of future earnings and cash flows they generate.

Our intercompany funding exposes our consolidated statements of income to foreign exchange transaction risk, while our equity investments in our foreign operations result in translation risk exposure in our AOCI and capital ratios. We manage our transaction risk by entering into forward foreign currency derivative contracts to hedge our exposure to variability in cash flows related to foreign currency-denominated intercompany borrowings. We use foreign currency derivative contracts as net investment hedges.

to manage our AOCI exposure. We apply hedge accounting to both our intercompany funding hedges and our net investment hedges, with the primary net investments subject to hedging denominated in GBP.

We measure our total exposure from non-dollar-denominated intercompany borrowings to our international businesses by regularly tracking the value of the loans made to our foreign operations and the associated forward foreign currency derivative contracts we use to hedge them. We apply a 1% U.S. dollar appreciation shock against these exposures to measure the impact to our consolidated statements of income from foreign exchange transaction risk. The intercompany borrowings to our international businesses were 756 million GBP and 741 million GBP as of December 31, 2018 and 2017, respectively, and 6.5 billion CAD and 6.4 billion CAD as of December 31, 2018 and 2017, respectively.

We measure our total exposure in non-dollar-denominated equity by regularly tracking the value of net equity invested in our foreign operations largely in the U.K. and Canada. Our measurement of net equity includes the impact of net investment hedges where applicable. We apply a 30% U.S. dollar appreciation shock against these net investment exposures, which we believe approximates a significant adverse foreign exchange movement over a one-year time horizon. Our gross equity exposures in our U.K. and Canadian operations were 1.6 billion GBP as of both December 31, 2018 and 2017, and 1.2 billion CAD and 1.0 billion CAD as of December 31, 2018 and 2017, respectively.

As a result of our derivative management activities, we believe our net exposure to foreign exchange risk is minimal.

Customer-Related Trading Risk

We offer various interest rate, foreign exchange rate and commodity derivatives as an accommodation to customers within our Commercial Banking business and offset the majority of these exposures through derivative transactions with other counterparties. These exposures are measured and monitored on a daily basis. As a result of offsetting our customer exposures with other counterparties, we believe our net exposure to customer-related trading risk is minimal.

We employ value-at-risk (“VaR”) as the primary method to both measure and monitor the market risk in our customer-related trading activities. VaR is a statistical-based risk measure used to estimate the potential loss from adverse market movements in a normal market environment. We employ a historical simulation approach using the most recent 500 business days and use a 99 percent confidence level and a holding period of one business day. We use internal models to produce a daily VaR measure of the market risk of all customer-related trading exposures.

For further information on our customer-related trading exposures, see “Note 10—Derivative Instruments and Hedging Activities.”

Market Risk Management

We employ several techniques to manage our interest rate and foreign exchange risk, which include, but are not limited to, altering the duration and repricing characteristics of our various assets and liabilities and mitigating the foreign exchange exposure of certain non-dollar-denominated equity or transactions. Derivatives are the primary tools that we use for managing interest rate and foreign exchange risk. Use of derivatives is included in our current market risk management policies. We execute our derivative contracts in both over-the-counter and exchange-traded derivative markets and have exposure to both bilateral and clearinghouse counterparties. Although the majority of our derivatives are interest rate swaps, we also use a variety of other derivative instruments, including caps, floors, options, futures and forward contracts, to manage both our interest rate and foreign currency risk. The outstanding notional amount of our derivative contracts increased to \$212.5 billion as of December 31, 2018 from \$196.6 billion as of December 31, 2017 primarily driven by an increase in our customer accommodation activities.

Market Risk Measurement

We have risk management policies and limits established by our market risk management policies and approved by the Board of Directors. Our objective is to manage our asset and liability risk position and exposure to market risk in accordance with these policies and prescribed limits based on prevailing market conditions and long-term expectations. Because no single measure can reflect all aspects of market risk, we use various industry standard market risk measurement techniques and analysis to measure, assess and manage the impact of changes in interest rates on our net interest income and our economic value of equity and the impact of changes in foreign exchange rates on our non-dollar-denominated earnings and non-dollar equity investments in foreign operations. We provide additional information below in “Economic Value of Equity.”

We consider the impact on both net interest income and economic value of equity in measuring and managing our interest rate risk. As interest rates have increased in 2018, we have incorporated a 200 basis points decline scenario into our interest rate sensitivity analysis. We use this 200 basis points decrease as our largest magnitude declining interest rate scenario and in scenarios where a 200 basis points decline would result in a rate less than 0%, we assume a rate of 0%.

Net Interest Income Sensitivity

This sensitivity measure estimates the impact on our projected 12-month baseline interest rate-sensitive revenue resulting from movements in interest rates. Interest rate-sensitive revenue consists of net interest income and certain components of other non-interest income significantly impacted by movements in interest rates, including changes in the fair value of free-standing interest rate swaps. In addition to our existing assets and liabilities, we incorporate expected future business growth assumptions, such as loan and deposit growth and pricing, and plans for projected changes in our funding mix in our baseline forecast. In measuring the sensitivity of interest rate movements on our projected interest rate-sensitive revenue, we assume a hypothetical instantaneous parallel shift in the level of interest rates of +200 basis points, +100 basis points, +50 basis points, -50 basis points, -100 basis points and -200 basis points to spot rates, with the lower rate scenario limited to zero as described above. At the current level of interest rates, our net interest income remains largely unchanged in most scenarios and decreases in the -200 basis points scenario.

Economic Value of Equity

Our economic value of equity sensitivity measure estimates the impact on the net present value of our assets and liabilities, including derivative hedging activity, resulting from movements in interest rates. Our economic value of equity sensitivity measures are calculated based on our existing assets and liabilities, including derivatives, and do not incorporate business growth assumptions or projected plans for funding mix changes. In measuring the sensitivity of interest rate movements on our economic value of equity, we assume a hypothetical instantaneous parallel shift in the level of interest rates of +200 basis points, +100 basis points, +50 basis points, -50 basis points, -100 basis points and -200 basis points to spot rates, with the lower rate scenario limited to zero as described above.

Calculating our economic value of equity and its sensitivity to interest rates requires projecting cash flows for assets, liabilities and derivative instruments and discounting those cash flows at the appropriate discount rates. Key assumptions in our economic value of equity calculation include projecting rate sensitive prepayments for mortgage securities, loans and other assets, term structure modeling of interest rates, discount spreads, and deposit volume and pricing assumptions.

Our current economic value of equity sensitivity profile demonstrates that our economic value of equity generally decreases as interest rates increase indicating that the economic value of our assets and derivative positions is more sensitive to interest rate changes than our liabilities.

Table 34 shows the estimated percentage impact on our projected baseline net interest income and economic value of equity calculated under the methodology described above as of December 31, 2018 and 2017.

Table 34: Interest Rate Sensitivity Analysis

	December 31, 2018	December 31, 2017
Estimated impact on projected baseline net interest income:		
+200 basis points	(0.8)%	(0.8)%
+100 basis points	(0.2)	(0.3)
+50 basis points	0.0	0.0
-50 basis points	(0.3)	(0.3)
-100 basis points	(1.0)	(1.3)
-200 basis points	(3.7)	—
Estimated impact on economic value of equity:		
+200 basis points	(7.1)	(7.5)
+100 basis points	(2.9)	(3.1)
+50 basis points	(1.2)	(1.2)
-50 basis points	0.2	0.1
-100 basis points	(0.8)	(1.5)
-200 basis points	(8.0)	—

In addition to these industry standard measures, we will continue to factor into our internal interest rate risk management decisions, the potential impact of alternative interest rate scenarios, such as stressed rate shocks, as well as steepening and flattening yield curve scenarios.

Limitations of Market Risk Measures

The interest rate risk models that we use in deriving these measures incorporate contractual information, internally-developed assumptions and proprietary modeling methodologies, which project borrower and depositor behavior patterns in certain interest rate environments. Other market inputs, such as interest rates, market prices and interest rate volatility, are also critical components of our interest rate risk measures. We regularly evaluate, update and enhance these assumptions, models and analytical tools as we believe appropriate to reflect our best assessment of the market environment and the expected behavior patterns of our existing assets and liabilities.

There are inherent limitations in any methodology used to estimate the exposure to changes in market interest rates. The sensitivity analysis described above contemplates only certain movements in interest rates and is performed at a particular point in time based on the existing balance sheet and, in some cases, expected future business growth and funding mix assumptions. The strategic actions that management may take to manage our balance sheet may differ significantly from our projections, which could cause our actual earnings and economic value of equity sensitivities to differ substantially from the above sensitivity analysis.

SUPPLEMENTAL TABLES

Table A—Loans Held for Investment Portfolio Composition

<i>(Dollars in millions)</i>	December 31,				
	2018	2017	2016	2015	2014
Credit Card:					
Domestic credit card	\$ 107,350	\$ 105,293	\$ 97,120	\$ 87,939	\$ 77,704
International card businesses	9,011	9,469	8,432	8,186	8,172
Total credit card	<u>116,361</u>	<u>114,762</u>	<u>105,552</u>	<u>96,125</u>	<u>85,876</u>
Consumer Banking:					
Auto	56,341	53,991	47,916	41,549	37,824
Home loan	—	17,633	21,584	25,227	30,035
Retail banking	2,864	3,454	3,554	3,596	3,580
Total consumer banking	<u>59,205</u>	<u>75,078</u>	<u>73,054</u>	<u>70,372</u>	<u>71,439</u>
Commercial Banking:					
Commercial and multifamily real estate	28,899	26,150	26,609	25,518	23,137
Commercial and industrial	41,091	38,025	39,824	37,135	26,972
Total commercial lending	<u>69,990</u>	<u>64,175</u>	<u>66,433</u>	<u>62,653</u>	<u>50,109</u>
Small-ticket commercial real estate	343	400	483	613	781
Total commercial banking	<u>70,333</u>	<u>64,575</u>	<u>66,916</u>	<u>63,266</u>	<u>50,890</u>
Other loans	—	58	64	88	111
Total loans	<u>\$ 245,899</u>	<u>\$ 254,473</u>	<u>\$ 245,586</u>	<u>\$ 229,851</u>	<u>\$ 208,316</u>

Table B—Performing Delinquencies

<i>(Dollars in millions)</i>	December 31,									
	2018		2017		2016		2015		2014	
	Loans ⁽¹⁾	Rate ⁽²⁾	Loans ⁽¹⁾	Rate ⁽²⁾	Loans ⁽¹⁾	Rate ⁽²⁾	Loans ⁽¹⁾	Rate ⁽²⁾	Loans ⁽¹⁾	Rate ⁽²⁾
Delinquent loans:										
30 – 59 days	\$ 4,255	1.73%	\$ 3,908	1.53%	\$ 3,416	1.39%	\$ 3,042	1.33%	\$ 2,803	1.34%
60 – 89 days	2,406	0.98	2,086	0.82	1,833	0.75	1,636	0.71	1,394	0.67
90 – 119 days	866	0.35	862	0.34	771	0.31	603	0.26	508	0.24
120 – 149 days	736	0.30	734	0.29	628	0.26	493	0.21	409	0.20
150 or more days	632	0.26	637	0.25	537	0.22	409	0.18	346	0.17
Total	\$ 8,895	3.62%	\$ 8,227	3.23%	\$ 7,185	2.93%	\$ 6,183	2.69%	\$ 5,460	2.62%
By geographic area:										
Domestic	\$ 8,578	3.49%	\$ 7,883	3.10%	\$ 6,902	2.81%	\$ 5,939	2.58%	\$ 5,220	2.50%
International	317	0.13	344	0.13	283	0.12	244	0.11	240	0.12
Total	\$ 8,895	3.62%	\$ 8,227	3.23%	\$ 7,185	2.93%	\$ 6,183	2.69%	\$ 5,460	2.62%
Total loans held for investment	\$ 245,899		\$ 254,473		\$ 245,586		\$ 229,851		\$ 208,316	

⁽¹⁾ Credit card loan balances are reported net of the finance charge and fee reserve, which totaled \$468 million, \$491 million, \$402 million, \$262 million and \$216 million as of December 31, 2018, 2017, 2016, 2015 and 2014, respectively.

⁽²⁾ Performing loan modifications and restructuring totaled \$1.4 billion, \$1.9 billion, \$1.6 billion, \$1.4 billion and \$1.2 billion as of December 31, 2018, 2017, 2016, 2015 and 2014, respectively.

⁽³⁾ Delinquency rates are calculated by dividing loans in each delinquency status category and geographic region as of the end of the period by the total loan portfolio.

Table C—Nonperforming Loans and Other Nonperforming Assets

(Dollars in millions)	December 31,				
	2018	2017	2016	2015	2014
Nonperforming loans held for investment:					
Credit Card:					
International card businesses	\$ 22	\$ 24	\$ 42	\$ 53	\$ 70
Total credit card	22	24	42	53	70
Consumer Banking:					
Auto	449	376	223	219	197
Home loan	—	176	273	311	330
Retail banking	30	35	31	28	22
Total consumer banking	479	587	527	558	549
Commercial Banking:					
Commercial and multifamily real estate	83	38	30	7	62
Commercial and industrial	223	239	988	538	106
Total commercial lending	306	277	1,018	545	168
Small-ticket commercial real estate	6	7	4	5	7
Total commercial banking	312	284	1,022	550	175
Other loans	—	4	8	9	15
Total nonperforming loans held for investment	\$ 813	\$ 899	\$ 1,599	\$ 1,170	\$ 809
Other nonperforming assets:					
Foreclosed property	\$ 2	\$ 88	\$ 75	\$ 126	\$ 139
Other assets ⁽¹⁾	57	65	205	198	183
Total other nonperforming assets	59	153	280	324	322
Total nonperforming assets	\$ 872	\$ 1,052	\$ 1,879	\$ 1,494	\$ 1,131
Total nonperforming loans ⁽²⁾	0.33%	0.35%	0.65%	0.51%	0.39%
Total nonperforming assets ⁽³⁾	0.35	0.41	0.76	0.65	0.54

⁽¹⁾ Beginning in the first quarter of 2017, partially charged-off auto loans previously presented within other assets were prospectively included within loans held for investment. Other assets includes repossessed assets obtained in satisfaction of auto loans and the net realizable value of certain partially charged-off auto loans, which will continue to decline over time.

⁽²⁾ Nonperforming loan rate is calculated based on total nonperforming loans divided by period-end total loans held for investment.

⁽³⁾ The denominator used in calculating the total nonperforming assets ratio consists of total loans held for investment and total other nonperforming assets.

Table D—Net Charge-Offs

<i>(Dollars in millions)</i>	December 31,				
	2018	2017	2016	2015	2014
Average loans held for investment	\$ 242,118	\$ 245,565	\$ 233,272	\$ 210,745	\$ 197,925
Net charge-offs	6,112	6,562	5,062	3,695	3,414
Net charge-off rate	2.52%	2.67%	2.17%	1.75%	1.72%

Table E—Summary of Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments

<i>(Dollars in millions)</i>	December 31,				
	2018	2017	2016	2015	2014
Allowance for loan and lease losses:					
Balance at beginning of period	\$ 7,502	\$ 6,503	\$ 5,130	\$ 4,383	\$ 4,315
Charge-offs:					
Credit card	(6,657)	(6,321)	(5,019)	(4,028)	(3,963)
Consumer banking	(1,832)	(1,677)	(1,226)	(1,082)	(989)
Commercial banking	(119)	(481)	(307)	(76)	(34)
Other	(7)	(34)	(3)	(7)	(10)
Total charge-offs	<u>(8,615)</u>	<u>(8,513)</u>	<u>(6,555)</u>	<u>(5,193)</u>	<u>(4,996)</u>
Recoveries:					
Credit card	1,588	1,267	1,066	1,110	1,235
Consumer banking	851	639	406	351	314
Commercial banking	63	16	15	29	24
Other	1	29	6	8	9
Total recoveries	<u>2,503</u>	<u>1,951</u>	<u>1,493</u>	<u>1,498</u>	<u>1,582</u>
Net charge-offs	<u>(6,112)</u>	<u>(6,562)</u>	<u>(5,062)</u>	<u>(3,695)</u>	<u>(3,414)</u>
Provision for credit losses	5,858	7,563	6,491	4,490	3,515
Allowance build (release) for loan and lease losses	<u>(254)</u>	<u>1,001</u>	<u>1,429</u>	<u>795</u>	<u>101</u>
Other changes	<u>(28)</u>	<u>(2)</u>	<u>(56)</u>	<u>(48)</u>	<u>(33)</u>
Balance at end of period	<u>\$ 7,220</u>	<u>\$ 7,502</u>	<u>\$ 6,503</u>	<u>\$ 5,130</u>	<u>\$ 4,383</u>
Reserve for unfunded lending commitments:					
Balance at beginning of period	\$ 124	\$ 136	\$ 168	\$ 113	\$ 87
Provision (benefit) for losses on unfunded lending commitments	(2)	(12)	(32)	46	26
Other changes	—	—	—	9	—
Balance at end of period	<u>122</u>	<u>124</u>	<u>136</u>	<u>168</u>	<u>113</u>
Combined allowance and reserve at end of period	<u>\$ 7,342</u>	<u>\$ 7,626</u>	<u>\$ 6,639</u>	<u>\$ 5,298</u>	<u>\$ 4,496</u>
Allowance for loan and lease losses as a percentage of loans held for investment	2.94%	2.95%	2.65%	2.23%	2.10%
Combined allowance and reserve by geographic distribution:					
Domestic	\$ 6,951	\$ 7,251	\$ 6,262	\$ 4,999	\$ 4,170
International	391	375	377	299	326
Total	<u>\$ 7,342</u>	<u>\$ 7,626</u>	<u>\$ 6,639</u>	<u>\$ 5,298</u>	<u>\$ 4,496</u>
Combined allowance and reserve by portfolio segment:					
Credit card	\$ 5,535	\$ 5,648	\$ 4,606	\$ 3,654	\$ 3,204
Consumer banking	1,052	1,249	1,109	875	786
Commercial banking	755	728	922	765	501
Other	—	1	2	4	5
Total	<u>\$ 7,342</u>	<u>\$ 7,626</u>	<u>\$ 6,639</u>	<u>\$ 5,298</u>	<u>\$ 4,496</u>

Reconciliation of Non-GAAP Measures

The following non-GAAP measures consist of TCE, tangible assets and metrics computed using these amounts, which include tangible book value per common share, return on average tangible assets, return on average TCE and TCE ratio. We consider these metrics to be key financial performance measures that management uses in assessing capital adequacy and the level of returns generated. While these non-GAAP measures are widely used by investors, analysts and bank regulatory agencies to assess the capital position of financial services companies, our measures may not be comparable to similarly-titled measures reported by other companies. The following tables present reconciliations of these non-GAAP measures to the applicable amounts measured in accordance with GAAP.

Table F—Reconciliation of Non-GAAP Measures

	December 31,				
	2018	2017	2016	2015	2014
<i>(Dollars in millions, except as noted)</i>					
Tangible Common Equity (Period-End):					
Stockholders' equity	\$ 51,668	\$ 48,730	\$ 47,514	\$ 47,284	\$ 45,053
Goodwill and intangible assets ⁽¹⁾	(14,941)	(15,106)	(15,420)	(15,701)	(15,383)
Noncumulative perpetual preferred stock	(4,360)	(4,360)	(4,360)	(3,294)	(1,822)
Tangible common equity	<u>\$ 32,367</u>	<u>\$ 29,264</u>	<u>\$ 27,734</u>	<u>\$ 28,289</u>	<u>\$ 27,848</u>
Tangible Common Equity (Average):					
Stockholders' equity	\$ 50,192	\$ 49,530	\$ 48,753	\$ 47,713	\$ 44,268
Goodwill and intangible assets ⁽¹⁾	(15,017)	(15,308)	(15,550)	(15,273)	(15,575)
Noncumulative perpetual preferred stock	(4,360)	(4,360)	(3,591)	(2,641)	(1,213)
Tangible common equity	<u>\$ 30,815</u>	<u>\$ 29,862</u>	<u>\$ 29,612</u>	<u>\$ 29,799</u>	<u>\$ 27,480</u>
Tangible Assets (Period-End):					
Total assets	\$ 372,538	\$ 365,693	\$ 357,033	\$ 334,048	\$ 308,167
Goodwill and intangible assets ⁽¹⁾	(14,941)	(15,106)	(15,420)	(15,701)	(15,383)
Tangible assets	<u>\$ 357,597</u>	<u>\$ 350,587</u>	<u>\$ 341,613</u>	<u>\$ 318,347</u>	<u>\$ 292,784</u>
Tangible Assets (Average)					
Total assets	\$ 363,036	\$ 354,924	\$ 339,974	\$ 313,474	\$ 297,659
Goodwill and intangible assets ⁽¹⁾	(15,017)	(15,308)	(15,550)	(15,273)	(15,575)
Tangible assets	<u>\$ 348,019</u>	<u>\$ 339,616</u>	<u>\$ 324,424</u>	<u>\$ 298,201</u>	<u>\$ 282,084</u>
Non-GAAP Ratio:					
TCE ⁽²⁾	9.1%	8.3%	8.1%	8.9%	9.5%

⁽¹⁾ Includes impact of related deferred taxes.

⁽²⁾ TCE ratio is a non-GAAP measure calculated based on TCE divided by tangible assets.

Table G—Selected Quarterly Financial Information

(Dollars in millions, except per share data and as noted) (unaudited)	2018				2017			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Summarized results of operations:								
Interest income	\$ 7,048	\$ 6,895	\$ 6,596	\$ 6,637	\$ 6,604	\$ 6,420	\$ 6,128	\$ 6,070
Interest expense	1,228	1,109	1,045	919	791	720	655	596
Net interest income	5,820	5,786	5,551	5,718	5,813	5,700	5,473	5,474
Provision for credit losses	1,638	1,268	1,276	1,674	1,926	1,833	1,800	1,992
Net interest income after provision for credit losses	4,182	4,518	4,275	4,044	3,887	3,867	3,673	3,482
Non-interest income	1,193	1,176	1,641	1,191	1,200	1,285	1,231	1,061
Non-interest expense	4,132	3,773	3,424	3,573	3,779	3,567	3,414	3,434
Income from continuing operations before income taxes	1,243	1,921	2,492	1,662	1,308	1,585	1,490	1,109
Income tax provision (benefit)	(21)	420	575	319	2,170	448	443	314
Income (loss) from continuing operations, net of tax	1,264	1,501	1,917	1,343	(862)	1,137	1,047	795
Income (loss) from discontinued operations, net of tax	(3)	1	(11)	3	(109)	(30)	(11)	15
Net income (loss)	1,261	1,502	1,906	1,346	(971)	1,107	1,036	810
Dividends and undistributed earnings allocated to participating securities ⁽¹⁾	(9)	(9)	(12)	(10)	(1)	(8)	(8)	(5)
Preferred stock dividends	(80)	(53)	(80)	(52)	(80)	(52)	(80)	(53)
Net income (loss) available to common stockholders	\$ 1,172	\$ 1,440	\$ 1,814	\$ 1,284	\$ (1,052)	\$ 1,047	\$ 948	\$ 752
Common share statistics:								
Basic earnings per common share:⁽¹⁾								
Net income (loss) from continuing operations	\$ 2.50	\$ 3.01	\$ 3.76	\$ 2.63	\$ (1.95)	\$ 2.22	\$ 1.98	\$ 1.53
Income (loss) from discontinued operations	(0.01)	—	(0.02)	0.01	(0.22)	(0.06)	(0.02)	0.03
Net income (loss) per basic common share	\$ 2.49	\$ 3.01	\$ 3.74	\$ 2.64	\$ (2.17)	\$ 2.16	\$ 1.96	\$ 1.56
Diluted earnings per common share:⁽¹⁾								
Net income (loss) from continuing operations	\$ 2.49	\$ 2.99	\$ 3.73	\$ 2.61	\$ (1.95)	\$ 2.20	\$ 1.96	\$ 1.51
Income (loss) from discontinued operations	(0.01)	—	(0.02)	0.01	(0.22)	(0.06)	(0.02)	0.03
Net income (loss) per diluted common share	\$ 2.48	\$ 2.99	\$ 3.71	\$ 2.62	\$ (2.17)	\$ 2.14	\$ 1.94	\$ 1.54
Weighted-average common shares outstanding (in millions):								
Basic common shares	470.0	477.8	485.1	486.9	485.7	484.9	484.0	482.3
Diluted common shares	472.7	480.9	488.3	490.8	485.7	489.0	488.1	487.9
Balance sheet (average balances):								
Loans held for investment	\$ 241,371	\$ 236,766	\$ 240,758	\$ 249,726	\$ 252,566	\$ 245,822	\$ 242,241	\$ 241,505
Interest-earning assets	334,714	330,272	333,495	330,183	330,742	322,015	318,078	318,358
Total assets	365,243	360,937	363,929	362,049	363,045	355,191	349,891	351,641
Interest-bearing deposits	222,827	221,431	223,079	219,670	215,258	213,137	214,412	212,973
Total deposits	247,663	246,720	248,790	245,270	241,562	238,843	240,550	238,550
Borrowings	53,994	51,684	52,333	54,588	58,109	54,271	48,838	53,357
Common equity	46,753	46,407	45,466	44,670	46,350	45,816	44,645	43,833
Total stockholders' equity	51,114	50,768	49,827	49,031	50,710	50,176	49,005	48,193

⁽¹⁾ Dividends and undistributed earnings allocated to participating securities and earnings per share are computed independently for each period. Accordingly, the sum of each quarterly amount may not agree to the year-to-date total.

Glossary and Acronyms

2018 Stock Repurchase Program: On June 28, 2018, we announced that our Board of Directors authorized the repurchase of up to \$1.2 billion of shares of our common stock from the third quarter of 2018 through the end of the second quarter of 2019.

Annual Report: References to our “2018 Form 10-K” or “2018 Annual Report” are to our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

Banks: Refers to COBNA and CONA.

Basel Committee: The Basel Committee on Banking Supervision.

Basel III Advanced Approaches: The Basel III Advanced Approaches is mandatory for those institutions with consolidated total assets of \$250 billion or more or consolidated total on-balance sheet foreign exposure of \$10 billion or more. The Basel III Capital Rule modified the Advanced Approaches version of Basel II to create the Basel III Advanced Approaches.

Basel III Capital Rule: The Federal Banking Agencies issued a rule in July 2013 implementing the Basel III capital framework developed by the Basel Committee as well as certain Dodd-Frank Act and other capital provisions.

Basel III Standardized Approach: The Basel III Capital Rule modified Basel I to create the Basel III Standardized Approach, which requires for Basel III Advanced Approaches banking organizations that have yet to exit parallel run to use the Basel III Standardized Approach to calculate regulatory capital, including capital ratios, subject to transition provisions.

Bass Pro acquisition: On October 5, 2018, we completed the acquisition of the Bass Pro cobrand credit card portfolio.

Cabela’s acquisition: On September 25, 2017, we completed the acquisition from Synovus Bank of credit card assets and the related liabilities of World’s Foremost Bank, a wholly-owned subsidiary of Cabela’s Incorporated.

Capital One: Capital One Financial Corporation and its subsidiaries.

Carrying value (with respect to loans): The amount at which a loan is recorded on the consolidated balance sheets. For loans recorded at amortized cost, carrying value is the unpaid principal balance net of unamortized deferred loan origination fees and costs, and unamortized purchase premium or discount. For loans that are or have been on nonaccrual status, the carrying value is also reduced by any net charge-offs that have been recorded and the amount of interest payments applied as a reduction of principal under the cost recovery method. For credit card loans, the carrying value also includes interest that has been billed to the customer. For loans classified as held for sale, carrying value is the lower of carrying value as described in the sentences above, or fair value. For PCI loans, carrying value represents the present value of all expected cash flows including interest that has not yet been accrued, discounted at the effective interest rate, including any valuation allowance for impaired loans.

CECL: In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): *Measurement of Credit Losses on Financial Instruments*. This ASU requires an impairment model (known as the current expected credit loss (“CECL”) model) that is based on expected rather than incurred losses, with an anticipated result of more timely loss recognition. This guidance is effective for us on January 1, 2020, with early adoption permitted no earlier than January 1, 2019.

COBNA: Capital One Bank (USA), National Association, one of our fully owned subsidiaries, which offers credit and debit card products, other lending products and deposit products.

Common equity Tier 1 capital: Calculated as the sum of common equity, related surplus and retained earnings, and accumulated other comprehensive income net of applicable phase-ins, less goodwill and intangibles net of associated deferred tax liabilities and applicable phase-ins, less other deductions, as defined by regulators.

Company: Capital One Financial Corporation and its subsidiaries.

CONA: Capital One, National Association, one of our fully owned subsidiaries, which offers a broad spectrum of banking products and financial services to consumers, small businesses and commercial clients.

Credit risk: The risk of loss from an obligor’s failure to meet the terms of any contract or otherwise fail to perform as agreed.

Derivative: A contract or agreement whose value is derived from changes in interest rates, foreign exchange rates, prices of securities or commodities, credit worthiness for credit default swaps or financial or commodity indices.

Discontinued operations: The operating results of a component of an entity, as defined by Accounting Standards Codification (“ASC”) 205, that are removed from continuing operations when that component has been disposed of or it is management’s intention to sell the component.

Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”): Regulatory reform legislation signed into law on July 21, 2010. This law broadly affects the financial services industry and contains numerous provisions aimed at strengthening the sound operation of the financial services sector.

Exchange Act: The Securities Exchange Act of 1934, as amended.

eXtensible Business Reporting Language (“XBRL”): A language for the electronic communication of business and financial data.

Federal Banking Agencies: The Federal Reserve, Office of the Comptroller of the Currency and Federal Deposit Insurance Corporation.

Federal Reserve: The Board of Governors of the Federal Reserve System.

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical modeling software created by FICO (formerly known as “Fair Isaac Corporation”) utilizing data collected by the credit bureaus.

Foreign currency derivative contracts: An agreement to exchange contractual amounts of one currency for another currency at one or more future dates.

Foreign exchange contracts: Contracts that provide for the future receipt or delivery of foreign currency at previously agreed-upon terms.

GSE or Agency: A government-sponsored enterprise or agency is a financial services corporation created by the United States Congress. Examples of U.S. government agencies include Federal National Mortgage Association (“Fannie Mae”), Federal Home Loan Mortgage Corporation (“Freddie Mac”), Government National Mortgage Association (“Ginnie Mae”) and the Federal Home Loan Banks (“FHLB”).

Impaired loans: A loan is considered impaired when, based on current information and events, it is probable that we will not be able to collect all amounts due from the borrower in accordance with the original contractual terms of the loan.

Interest rate sensitivity: The exposure to interest rate movements.

Interest rate swaps: Contracts in which a series of interest rate flows in a single currency are exchanged over a prescribed period. Interest rate swaps are the most common type of derivative contract that we use in our asset/liability management activities.

Investment grade: Represents Moody’s long-term rating of Baa3 or better; and/or a Standard & Poor’s or DBRS long-term rating of BBB- or better; or if unrated, an equivalent rating using our internal risk ratings. Instruments that fall below these levels are considered to be non-investment grade.

Investor entities: Entities that invest in community development entities (“CDE”) that provide debt financing to businesses and non-profit entities in low-income and rural communities.

LCR Rule: In September 2014, the Federal Banking Agencies issued final rules implementing the Basel III Liquidity Coverage Ratio in the United States. The LCR is calculated by dividing the amount of an institution’s high quality, unencumbered liquid assets by its estimated net cash outflow, as defined and calculated in accordance with Final LCR Rule.

Leverage ratio: Tier 1 capital divided by average assets after certain adjustments, as defined by the regulators.

Liquidity risk: The risk that the Company will not be able to meet its future financial obligations as they come due, or invest in future asset growth because of an inability to obtain funds at a reasonable price within a reasonable time period.

Loan-to-value (“LTV”) ratio: The relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral securing the loan.

Managed presentation: A non-GAAP presentation of financial results that includes reclassifications to present revenue on a fully taxable-equivalent basis. Management uses this non-GAAP financial measure at the segment level, because it believes this provides information to enable investors to understand the underlying operational performance and trends of the particular business segment and facilitates a comparison of the business segment with the performance of competitors.

Market risk: The risk that an institution's earnings or the economic value of equity could be adversely impacted by changes in interest rates, foreign exchange rates or other market factors.

Master netting agreement: An agreement between two counterparties that have multiple contracts with each other that provides for the net settlement of all contracts through a single payment in the event of default or termination of any one contract.

Mortgage-backed security ("MBS"): An asset-backed security whose cash flows are backed by the principal and interest payments of a set of mortgage loans.

Mortgage servicing rights ("MSR"): The right to service a mortgage loan when the underlying loan is sold or securitized. Servicing includes collections for principal, interest and escrow payments from borrowers and accounting for and remitting principal and interest payments to investors.

Net interest margin: The result of dividing net interest income by average interest-earning assets.

Nonperforming loans: Generally include loans that have been placed on nonaccrual status. We also do not report loans classified as held for sale as nonperforming.

Option-ARM loans: The option-ARM real estate loan product is an adjustable-rate mortgage loan that initially provides the borrower with the monthly option to make a fully-amortizing, interest-only or minimum fixed payment. After the initial payment option period, usually five years, the recalculated minimum payment represents a fully-amortizing principal and interest payment that would effectively repay the loan by the end of its contractual term.

Other-than-temporary impairment ("OTTI"): An impairment charge taken on a security whose fair value has fallen below the carrying value on the balance sheet and whose value is not expected to recover through the holding period of the security.

Public Funds deposits: Deposits that are derived from a variety of political subdivisions such as school districts and municipalities.

Purchased credit-impaired ("PCI") loans: Loans acquired in a business combination that were recorded at fair value at acquisition and subsequently accounted for based on cash flows expected to be collected in accordance with ASC 310-30, *Loans and Debt Securities Acquired with Deteriorated Credit Quality*.

Purchase volume: Consists of purchase transactions, net of returns, for the period, and excludes cash advance and balance transfer transactions.

Rating agency: An independent agency that assesses the credit quality and likelihood of default of an issue or issuer and assigns a rating to that issue or issuer.

Recorded investment: The amount of the investment in a loan which includes any direct write-down of the investment.

Repurchase agreement: An instrument used to raise short-term funds whereby securities are sold with an agreement for the seller to buy back the securities at a later date.

Restructuring charges: Charges associated with the realignment of resources supporting various businesses, primarily consisting of severance and related benefits pursuant to our ongoing benefit programs and impairment of certain assets related to business locations and activities being exited.

Return on average assets: Calculated based on income from continuing operations, net of tax, for the period divided by average total assets for the period.

Return on average common equity: Calculated based on (i) income from continuing operations, net of tax; (ii) less dividends and undistributed earnings allocated to participating securities; (iii) less preferred stock dividends, for the period, divided by average common equity. Our calculation of return on average common equity may not be comparable to similarly-titled measures reported by other companies.

Return on average tangible common equity: A non-GAAP financial measure calculated based on (i) income from continuing operations, net of tax; (ii) less dividends and undistributed earnings allocated to participating securities; (iii) less preferred stock dividends, for the period, divided by average tangible common equity. Our calculation of return on average tangible common equity may not be comparable to similarly-titled measures reported by other companies.

Risk-weighted assets: On- and off-balance sheet assets that are assigned to one of several broad risk categories and weighted by factors representing their risk and potential for default.

Securitized debt obligations: A type of asset-backed security and structured credit product constructed from a portfolio of fixed-income assets.

Subprime: For purposes of lending in our Credit Card business, we generally consider FICO scores of 660 or below, or other equivalent risk scores, to be subprime. For purposes of auto lending in our Consumer Banking business, we generally consider FICO scores of 620 or below to be subprime.

Tangible common equity (“TCE”): A non-GAAP financial measure. Common equity less goodwill and intangible assets adjusted for deferred tax liabilities associated with non-tax deductible intangible assets and tax deductible goodwill.

Tax Act: The Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018 enacted on December 22, 2017.

Troubled debt restructuring (“TDR”): A TDR is deemed to occur when the contractual terms of a loan agreement are modified by granting a concession to a borrower that is experiencing financial difficulty.

Unfunded commitments: Legally binding agreements to provide a defined level of financing until a specified future date.

U.K. PPI Reserve: U.K. payment protection insurance customer refund reserve.

U.S. GAAP: Accounting principles generally accepted in the United States of America. Accounting rules and conventions defining acceptable practices in preparing financial statements in the U.S.

Variable interest entity (“VIE”): An entity that (i) lacks enough equity investment at risk to permit the entity to finance its activities without additional financial support from other parties; (ii) has equity owners that lack the right to make significant decisions affecting the entity’s operations; and/or (iii) has equity owners that do not have an obligation to absorb or the right to receive the entity’s losses or return.

Acronyms

AWS: Amazon Web Services, Inc.
ABS: Asset-backed security
AML: Anti-money laundering
AOCI: Accumulated other comprehensive income
ARM: Adjustable rate mortgage
ASU: Accounting Standards Update
ASC: Accounting Standards Codification
BHC: Bank holding company
bps: Basis points
CAD: Canadian dollar
CAP: Compliance assurance process
CCAR: Comprehensive Capital Analysis and Review
CCP: Central Counterparty Clearinghouse, or Central Clearinghouse
CCPA: California Consumer Privacy Act of 2018
CDE: Community development entities
CECL: Current expected credit loss
CEO: Chief Executive Officer
CFPB: Consumer Financial Protection Bureau
CFTC: Commodity Futures Trading Commission
CMBS: Commercial mortgage-backed securities
CME: Chicago Mercantile Exchange
COEP: Capital One (Europe) plc
COF: Capital One Financial Corporation
COSO: Committee of Sponsoring Organizations of the Treadway Commission
CRA: Community Reinvestment Act
CVA: Credit valuation adjustment
DCF: Discounted cash flow
DCM: Designated contract market
DDOS: Distributed denial of service
DIF: Deposit insurance fund
DRP: Dividend Reinvestment and Stock Purchase Plan
DRR: Designated reserve ratio
DUS: Delegated Underwriting and Servicing
DVA: Debit valuation adjustment
EGRRCPA: Economic Growth, Regulatory Relief, and Consumer Protection Act
EU: European Union
Fannie Mae: Federal National Mortgage Association
FASB: Financial Accounting Standards Board
FCA: U.K. Financial Conduct Authority
FCAC: Financial Consumer Agency of Canada
FCM: Futures commission merchant
FDIC: Federal Deposit Insurance Corporation
FDICIA: The Federal Deposit Insurance Corporation Improvement Act of 1991

FFIEC: Federal Financial Institutions Examination Council
FHC: Financial holding company
FHFA: Federal Housing Finance Agency
FHLB: Federal Home Loan Banks
FIS: Fidelity Information Services
FIRREA: Financial Institutions Reform, Recovery and Enforcement Act
Fitch: Fitch Ratings
FOS: Financial Ombudsman Service
Freddie Mae: Federal Home Loan Mortgage Corporation
FSOC: Financial Stability Oversight Council
FVC: Fair Value Committee
GBP: Great British pound
GDPR: General Data Protection Regulation
Ginnie Mae: Government National Mortgage Association
G-SIBs: Global systemically important banks
GSE or Agency: Government-sponsored enterprise
LCH: LCH Group
LCR: Liquidity coverage ratio
LIBOR: London Interbank Offered Rate
Moody's: Moody's Investors Service
MSR: Mortgage servicing rights
NSFR: Net stable funding ratio
NYSE: New York Stock Exchange
OCC: Office of the Comptroller of the Currency
OCI: Other comprehensive income
OTC: Over-the-counter
OTTI: Other-than-temporary impairment
PCA: Prompt corrective action
PCAOB: Public Company Accounting Oversight Board (United States)
PCI: Purchased credit-impaired
PCCR: Purchased credit card relationship
PPI: Payment protection insurance
PSA: Performance share award
PSD2: The Payment Services Regulations 2017
PSU: Performance share unit
REO: Real estate owned
RMBS: Residential mortgage-backed securities
RSA: Restricted stock award
RSU: Restricted stock unit
S&P: Standard & Poor's
SEC: U.S. Securities and Exchange Commission
SEF: Swap execution facility
TCE: Tangible common equity
TDR: Troubled debt restructuring

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TILA: Truth in Lending Act

TSYS: Total Systems Services, Inc.

U.K.: United Kingdom

U.S.: United States of America

VAC: Valuations Advisory Committee

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

For a discussion of the quantitative and qualitative disclosures about market risk, see “MD&A—Risk Management—Market Risk Management” and “MD&A—Market Risk Profile.”

Item 8. Financial Statements and Supplementary Data

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MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Capital One Financial Corporation (the "Company" or "Capital One") is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, the Company's principal executive and principal financial officers, or persons performing similar functions, and effected by the Company's Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles.

Capital One'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 Company's assets; (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 the Company's receipts and expenditures are being made only in accordance with authorizations of the Company's management and directors; 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 its 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.

Management conducted an assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2018, based on the framework in "2013 Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), commonly referred to as the "2013 Framework."

Based on this assessment, management concluded that, as of December 31, 2018, the Company's internal control over financial reporting was effective based on the criteria established by COSO in the 2013 Framework. Additionally, based upon management's assessment, the Company determined that there were no material weaknesses in its internal control over financial reporting as of December 31, 2018.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2018, has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their accompanying report, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2018.

/s/ RICHARD D. FAIRBANK

Richard D. Fairbank
Chair, Chief Executive Officer and President

/s/ R. SCOTT BLACKLEY

R. Scott Blackley
Chief Financial Officer

February 20, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Capital One Financial Corporation:

Opinion on Internal Control over Financial Reporting

We have audited Capital One Financial Corporation's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Capital One Financial Corporation (the "Company") maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Capital One Financial Corporation as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes, of the Company and our report dated February 20, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible 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 Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

/s/ Ernst & Young LLP

Tysons, Virginia

February 20, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Capital One Financial Corporation:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Capital One Financial Corporation (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2018 and 2017, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 20, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1994.

Tysons, Virginia

February 20, 2019

**CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF INCOME**

	Year Ended December 31,		
	2018	2017	2016
<i>(Dollars in millions, except per share-related data)</i>			
Interest income:			
Loans, including loans held for sale	\$ 24,728	\$ 23,388	\$ 21,203
Investment securities	2,211	1,711	1,599
Other	237	123	89
Total interest income	27,176	25,222	22,891
Interest expense:			
Deposits	2,598	1,602	1,213
Securitized debt obligations	496	327	216
Senior and subordinated notes	1,125	731	476
Other borrowings	82	102	113
Total interest expense	4,301	2,762	2,018
Net interest income	22,875	22,460	20,873
Provision for credit losses	5,856	7,551	6,459
Net interest income after provision for credit losses	17,019	14,909	14,414
Non-interest income:			
Interchange fees, net	2,823	2,573	2,452
Service charges and other customer-related fees	1,585	1,597	1,646
Net securities gains (losses)	(209)	65	(11)
Other	1,002	542	541
Total non-interest income	5,201	4,777	4,628
Non-interest expense:			
Salaries and associate benefits	5,727	5,899	5,202
Occupancy and equipment	2,118	1,939	1,944
Marketing	2,174	1,670	1,811
Professional services	1,145	1,097	1,075
Communications and data processing	1,260	1,177	1,169
Amortization of intangibles	174	245	386
Other	2,304	2,167	1,971
Total non-interest expense	14,902	14,194	13,558
Income from continuing operations before income taxes	7,318	5,492	5,484
Income tax provision	1,293	3,375	1,714
Income from continuing operations, net of tax	6,025	2,117	3,770
Loss from discontinued operations, net of tax	(10)	(135)	(19)
Net income	6,015	1,982	3,751
Dividends and undistributed earnings allocated to participating securities	(40)	(13)	(24)
Preferred stock dividends	(265)	(265)	(214)
Net income available to common stockholders	\$ 5,710	\$ 1,704	\$ 3,513
Basic earnings per common share:			
Net income from continuing operations	\$ 11.92	\$ 3.80	\$ 7.00
Loss from discontinued operations	(0.02)	(0.28)	(0.04)
Net income per basic common share	\$ 11.90	\$ 3.52	\$ 6.96
Diluted earnings per common share:			
Net income from continuing operations	\$ 11.84	\$ 3.76	\$ 6.93
Loss from discontinued operations	(0.02)	(0.27)	(0.04)
Net income per diluted common share	\$ 11.82	\$ 3.49	\$ 6.89

See Notes to Consolidated Financial Statements.

CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Net income	\$ 6,015	\$ 1,982	\$ 3,751
Other comprehensive income (loss), net of tax:			
Net unrealized gains (losses) on securities available for sale	(459)	21	(166)
Net changes in securities held to maturity	447	97	104
Net unrealized losses on cash flow hedges	(74)	(203)	(198)
Foreign currency translation adjustments	(39)	84	(79)
Other	(11)	24	6
Other comprehensive income (loss), net of tax	(136)	23	(333)
Comprehensive income	\$ 5,879	\$ 2,005	\$ 3,418

See Notes to Consolidated Financial Statements.

**CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED BALANCE SHEETS**

<i>(Dollars in millions, except per share-related data)</i>	December 31, 2018	December 31, 2017
Assets:		
Cash and cash equivalents:		
Cash and due from banks	\$ 4,768	\$ 4,458
Interest-bearing deposits and other short-term investments	8,418	9,582
Total cash and cash equivalents	13,186	14,040
Restricted cash for securitization investors	303	312
Investment securities:		
Securities available for sale	46,150	37,655
Securities held to maturity	36,771	28,984
Total investment securities	82,921	66,639
Loans held for investment:		
Unsecuritized loans held for investment	211,702	218,806
Loans held in consolidated trusts	34,197	35,667
Total loans held for investment	245,899	254,473
Allowance for loan and lease losses	(7,220)	(7,502)
Net loans held for investment	238,679	246,971
Loans held for sale, at lower of cost or fair value	1,192	971
Premises and equipment, net	4,191	4,033
Interest receivable	1,614	1,536
Goodwill	14,544	14,533
Other assets	15,908	16,658
Total assets	\$ 372,538	\$ 365,693
Liabilities:		
Interest payable	\$ 458	\$ 413
Deposits:		
Non-interest-bearing deposits	23,483	26,404
Interest-bearing deposits	226,281	217,298
Total deposits	249,764	243,702
Securitized debt obligations	18,307	20,010
Other debt:		
Federal funds purchased and securities loaned or sold under agreements to repurchase	352	576
Senior and subordinated notes	30,826	30,755
Other borrowings	9,420	8,940
Total other debt	40,598	40,271
Other liabilities	11,743	12,567
Total liabilities	\$ 320,870	\$ 316,963
Commitments, contingencies and guarantees (see Note 19)		
Stockholders' equity:		
Preferred stock (par value \$.01 per share; 50,000,000 shares authorized; 4,475,000 shares issued and outstanding as of both December 31, 2018 and 2017)	0	0
Common stock (par value \$.01 per share; 1,000,000,000 shares authorized; 667,969,069 and 661,724,927 shares issued as of December 31, 2018 and 2017, respectively; 467,717,306 and 485,525,340 shares outstanding as of December 31, 2018 and 2017, respectively)	7	7
Additional paid-in capital, net	32,040	31,656
Retained earnings	35,875	30,700
Accumulated other comprehensive loss	(1,263)	(926)
Treasury stock, at cost (par value \$.01 per share; 200,251,763 and 176,199,587 shares as of December 31, 2018 and 2017, respectively)	(14,991)	(12,707)
Total stockholders' equity	51,668	48,730
Total liabilities and stockholders' equity	\$ 372,538	\$ 365,693

See Notes to Consolidated Financial Statements.

CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

<i>(Dollars in millions)</i>	Preferred Stock		Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balance as of December 31, 2015	3,375,000	\$ 0	648,317,395	\$ 6	\$ 29,655	\$ 27,045	\$ (616)	\$ (8,806)	\$ 47,284
Comprehensive income (loss)						3,751	(333)		3,418
Dividends—common stock ⁽¹⁾			52,338	0	4	(816)			(812)
Dividends—preferred stock						(214)			(214)
Purchases of treasury stock								(3,661)	(3,661)
Issuances of common stock and restricted stock, net of forfeitures			3,272,745	1	130				131
Exercise of stock options, tax effects of exercises and restricted stock vesting			2,094,129	0	102				102
Issuances of preferred stock (Series G and Series H)	1,100,000	0			1,066				1,066
Compensation expense for restricted stock awards, restricted stock units and stock options					200				200
Balance as of December 31, 2016	4,475,000	\$ 0	653,736,607	\$ 7	\$ 31,157	\$ 29,766	\$ (949)	\$ (12,467)	\$ 47,514
Comprehensive income						1,982	23		2,005
Dividends—common stock ⁽¹⁾			42,613	0	3	(783)			(780)
Dividends—preferred stock						(265)			(265)
Purchases of treasury stock								(240)	(240)
Issuances of common stock and restricted stock, net of forfeitures			4,057,555	0	164				164
Exercise of stock options and warrants			3,888,152	0	124				124
Compensation expense for restricted stock awards, restricted stock units and stock options					208				208
Balance as of December 31, 2017	4,475,000	\$ 0	661,724,927	\$ 7	\$ 31,656	\$ 30,700	\$ (926)	\$ (12,707)	\$ 48,730
Cumulative effects from adoption of new accounting standards						201	(201)		0
Comprehensive income (loss)						6,015	(136)		5,879
Dividends—common stock ⁽¹⁾			35,813	0	3	(776)			(773)
Dividends—preferred stock						(265)			(265)
Purchases of treasury stock								(2,284)	(2,284)
Issuances of common stock and restricted stock, net of forfeitures			4,183,783	0	175				175
Exercises of stock options and warrants			2,024,546	0	38				38
Compensation expense for restricted stock awards, restricted stock units and stock options					168				168
Balance as of December 31, 2018	4,475,000	\$ 0	667,969,069	\$ 7	\$ 32,040	\$ 35,875	\$ (1,263)	\$ (14,991)	\$ 51,668

⁽¹⁾ Common stock dividends declared were \$0.40 in each quarter of 2018, 2017 and 2016.

See Notes to Consolidated Financial Statements.

**CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS**

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Operating activities:			
Income from continuing operations, net of tax	\$ 6,025	\$ 2,117	\$ 3,770
Loss from discontinued operations, net of tax	(10)	(135)	(19)
Net income	6,015	1,982	3,751
Adjustments to reconcile net income to net cash from operating activities:			
Provision for credit losses	5,856	7,551	6,459
Depreciation and amortization, net	2,396	2,440	2,428
Deferred tax provision (benefit)	714	1,434	(686)
Net securities losses (gains)	209	(65)	11
Gain on sales of loans	(548)	(72)	(80)
Stock-based compensation expense	170	244	239
Other	(125)	(8)	(11)
Loans held for sale:			
Originations and purchases	(9,039)	(8,929)	(8,645)
Proceeds from sales and paydowns	8,442	9,595	8,390
Changes in operating assets and liabilities:			
Changes in interest receivable	(74)	(157)	(159)
Changes in other assets	476	(714)	(1,907)
Changes in interest payable	45	85	28
Changes in other liabilities	(1,553)	1,157	2,013
Net change from discontinued operations	(6)	(361)	25
Net cash from operating activities	12,978	14,182	11,856
Investing activities:			
Securities available for sale:			
Purchases	(14,022)	(12,412)	(14,154)
Proceeds from paydowns and maturities	7,510	7,213	7,867
Proceeds from sales	6,399	8,181	4,146
Securities held to maturity:			
Purchases	(19,166)	(5,885)	(3,787)
Proceeds from paydowns and maturities	2,419	2,594	2,681
Loans:			
Net changes in loans held for investment	1,015	(12,315)	(22,036)
Principal recoveries of loans previously charged off	2,503	1,951	1,493
Net purchases of premises and equipment	(874)	(1,018)	(779)
Net cash from acquisition activities	(600)	(3,187)	(629)
Net cash from other investing activities	(802)	(663)	(432)
Net cash from investing activities	(15,618)	(15,541)	(25,630)

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Financing activities:			
Deposits and borrowings:			
Changes in deposits	\$ 6,077	\$ 6,993	\$ 19,031
Issuance of securitized debt obligations	997	5,983	6,259
Maturities and paydowns of securitized debt obligations	(2,673)	(7,233)	(3,540)
Issuance of senior and subordinated notes and long-term FHLB advances	5,977	35,426	22,984
Maturities and paydowns of senior and subordinated notes and long-term FHLB advances	(14,163)	(36,554)	(24,170)
Changes in other borrowings	8,671	(400)	11
Common stock:			
Net proceeds from issuances	175	164	131
Dividends paid	(773)	(780)	(812)
Preferred stock:			
Net proceeds from issuances	0	0	1,066
Dividends paid	(265)	(265)	(214)
Purchases of treasury stock	(2,284)	(240)	(3,661)
Proceeds from share-based payment activities	38	124	142
Net cash from financing activities	1,777	3,218	17,227
Changes in cash, cash equivalents and restricted cash for securitization investors	(863)	1,859	3,453
Cash, cash equivalents and restricted cash for securitization investors, beginning of the period	14,352	12,493	9,040
Cash, cash equivalents and restricted cash for securitization investors, end of the period	\$ 13,489	\$ 14,352	\$ 12,493
Supplemental cash flow information:			
Non-cash items:			
Net transfers from loans held for investment to loans held for sale	\$ 855	\$ 674	\$ 552
Securitized debt obligations assumed in acquisition	0	2,484	0
Loans held for sale acquired by assuming other borrowings	0	283	0
Interest paid	3,933	2,772	2,250
Income tax paid	407	1,187	2,121

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NOTE 1—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company

Capital One Financial Corporation, a Delaware Corporation established in 1994 and headquartered in McLean, Virginia, is a diversified financial services holding company with banking and non-banking subsidiaries. Capital One Financial Corporation and its subsidiaries (the “Company”) offer a broad array of financial products and services to consumers, small businesses and commercial clients through branches, the internet and other distribution channels. As of December 31, 2018, our principal subsidiaries included:

- Capital One Bank (USA), National Association (“COBNA”), which offers credit and debit card products, other lending products and deposit products; and
- Capital One, National Association (“CONA”), which offers a broad spectrum of banking products and financial services to consumers, small businesses and commercial clients.

The Company is hereafter collectively referred to as “we,” “us” or “our.” COBNA and CONA are collectively referred to as the “Banks.”

We also offer products outside of the United States of America (“U.S.”) principally through Capital One (Europe) plc (“COEP”), an indirect subsidiary of COBNA organized and located in the United Kingdom (“U.K.”), and through a branch of COBNA in Canada. COEP has authority, among other things, to provide credit card loans. Our branch of COBNA in Canada also has the authority to provide credit card loans.

Our principal operations are organized for management reporting purposes into three major business segments, which are defined primarily based on the products and services provided or the type of customer served: Credit Card, Consumer Banking and Commercial Banking. We provide details on our business segments, the integration of recent acquisitions, if any, into our business segments and the allocation methodologies and accounting policies used to derive our business segment results in “Note 18—Business Segments and Revenue from Contracts with Customers.”

Basis of Presentation and Use of Estimates

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the U.S. (“U.S. GAAP”). The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and in the related disclosures. These estimates are based on information available as of the date of the consolidated financial statements. While management makes its best judgments, actual amounts or results could differ from these estimates. Certain prior period amounts have been reclassified to conform to the current period presentation.

Principles of Consolidation

The consolidated financial statements include the accounts of Capital One Financial Corporation and all other entities in which we have a controlling financial interest. We determine whether we have a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity (“VOE”) or a variable interest entity (“VIE”). All significant intercompany account balances and transactions have been eliminated.

Voting Interest Entities

VOEs are entities that have sufficient equity and provide the equity investors voting rights that give them the power to make significant decisions relating to the entity’s operations. Since a controlling financial interest in an entity is typically obtained through ownership of a majority voting interest, we consolidate our majority-owned subsidiaries and other voting interest entities in which we hold, directly or indirectly, more than 50% of the voting rights or where we exercise control through other contractual rights.

Investments in entities where we do not have a controlling financial interest but we have significant influence over the entity’s financial and operating decisions (generally defined as owning a voting interest of 20% to 50%) are accounted for under the equity method. If we own less than 20% of a voting interest entity, we generally measure equity investments at fair value with changes

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in fair value recorded through net income, except those that do not have a readily determinable fair value (for which a measurement alternative can be elected). We report equity investments in other assets on our consolidated balance sheets and include our share of income or loss and dividends from those investments in other non-interest income in our consolidated statements of income.

Variable Interest Entities

VIEs are entities that, by design, either (i) lack sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties; or (ii) have equity investors that do not have the ability to make significant decisions relating to the entity's operations through voting rights, or do not have the obligation to absorb the expected losses, or do not have the right to receive the residual returns of the entity. The entity that has a controlling financial interest in a VIE is referred to as the primary beneficiary and is required to consolidate the VIE. An entity is deemed to be the primary beneficiary of a VIE if that entity has both (i) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance; and (ii) the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE.

In determining whether we are the primary beneficiary of a VIE, we consider both qualitative and quantitative factors regarding the nature, size and form of our involvement with the VIE, such as our role in establishing the VIE and our ongoing rights and responsibilities; our economic interests, including debt and equity investments, servicing fees and other arrangements deemed to be variable interests in the VIE; the design of the VIE, including the capitalization structure, subordination of interests, payment priority, relative share of interests held across various classes within the VIE's capital structure and the reasons why the interests are held by us.

We perform on-going reassessments to evaluate whether changes in an entity's capital structure or changes in the nature of our involvement with the entity result in a change to the VIE designation or a change to our consolidation conclusion. See "Note 6—Variable Interest Entities and Securitizations" for further details.

Cash and Cash Equivalents

Cash and cash equivalents include cash and due from banks, interest-bearing deposits and other short-term investments, all of which, if applicable, have stated maturities of three months or less when acquired.

Securities Resale and Repurchase Agreements

Securities purchased under resale agreements and securities loaned or sold under agreements to repurchase, principally U.S. government and agency obligations, are not accounted for as sales but as collateralized financing transactions and recorded at the amounts at which the securities were acquired or sold, plus accrued interest. We continually monitor the market value of these securities and deliver additional collateral to or obtain additional collateral from counterparties, as appropriate. See "Note 9—Deposits and Borrowings" for further details.

Investment Securities

Our investment portfolio consists primarily of the following: U.S. Treasury securities; U.S. government-sponsored enterprise or agency ("Agency") and non-agency residential mortgage-backed securities ("RMBS"); Agency commercial mortgage-backed securities ("CMBS"); and other securities. The accounting and measurement framework for our investment securities differs depending on the security classification. We classify securities as available for sale or held to maturity based on our investment strategy and management's assessment of our intent and ability to hold the securities until maturity. Securities that we may sell prior to maturity in response to changes in our investment strategy, liquidity needs, interest rate risk profile or for other reasons are classified as available for sale. Securities that we have the intent and ability to hold until maturity are classified as held to maturity.

We report securities available for sale on our consolidated balance sheets at fair value with unrealized gains or losses recorded, net of tax, as a component of accumulated other comprehensive income ("AOCI"). We report securities held to maturity on our consolidated balance sheets at carrying value, which generally equals amortized cost. Amortized cost reflects historical cost adjusted for amortization of premiums, accretion of discounts and any previously recorded impairments. Investment securities transferred into the held to maturity category from the available for sale category are recorded at fair value at the date of transfer. Any unrealized gains or losses at the transfer date are thereafter included in AOCI. Such unrealized gains or losses are accreted over the remaining life of the security and are expected to offset the amortization of the related premium or discount created upon the investment securities transfer into the held to maturity category, with no expected impact on future net income.

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Unamortized premiums, discounts and other basis adjustments are recognized in interest income over the contractual lives of the securities using the effective interest method. We record purchases and sales of investment securities on a trade date basis. Realized gains or losses from the sale of debt securities are computed using the first in first out method of identification, and are included in non-interest income in our consolidated statements of income. If we intend to sell an available for sale security in an unrealized loss position or it is more likely than not that we will be required to sell the security prior to recovery of its amortized cost basis, the entire difference between the amortized cost basis of the security and its fair value is recognized in our consolidated statements of income.

We regularly evaluate our securities whose fair values have declined below amortized cost to assess whether the decline in fair value represents an other than temporary impairment ("OTTI"). We discuss our assessment and accounting for OTTI in "Note 3—Investment Securities." We discuss the techniques we use in determining the fair value of our investment securities in "Note 17—Fair Value Measurement."

Our investment portfolio also includes certain acquired debt securities that were deemed to be credit impaired at the acquisition date, and therefore are accounted for in accordance with accounting guidance for purchased credit-impaired ("PCI") loans and debt securities. These securities are recorded at fair value at the acquisition date using the estimated cash flows we expect to collect discounted by the prevailing market interest rate. The difference between the contractually required payments due and the undiscounted cash flows we expect to collect at acquisition, considering the impact of prepayments, is referred to as the nonaccretable difference. The nonaccretable difference reflects estimated future credit losses expected to be incurred over the life of the security, and is recorded as a discount to the related debt security on our consolidated balance sheet. The excess of the undiscounted cash flows expected to be collected over the estimated fair value of credit-impaired debt securities at acquisition is referred to as the accretable yield, which is accreted into interest income using an effective yield method over the remaining life of the security. Further decreases in expected cash flows attributable to credit result in the recognition of OTTI. Significant increases in expected cash flows are recognized prospectively over the remaining life of the security as an adjustment to the accretable yield. See "Loans Acquired" section of this Note for further discussion of accounting guidance for PCI loans and debt securities.

Loans

Our loan portfolio consists of loans held for investment, including loans underlying our consolidated securitization trusts, and loans held for sale, and is divided into three portfolio segments: credit card, consumer banking and commercial banking loans. Credit card loans consist of domestic and international credit card loans. Consumer banking loans consist of auto and retail banking loans (see "Note 2—Business Developments" for information about our consumer home loan portfolio sale in 2018). Commercial banking loans consist of commercial and multifamily real estate, commercial and industrial, and small-ticket commercial real estate loans.

Loan Classification

Upon origination or purchase, we classify loans as held for investment or held for sale based on our investment strategy and management's intent and ability with regard to the loans which may change over time. The accounting and measurement framework for loans differs depending on the loan classification, whether the loans are originated or purchased and whether purchased loans are considered credit-impaired at the date of acquisition. The presentation within the consolidated statements of cash flows is based on management's intent at acquisition or origination. Cash flows related to loans held for investment are included in cash flows from investing activities on our consolidated statements of cash flows. Cash flows related to loans held for sale are included in cash flows from operating activities on our consolidated statements of cash flows.

Loans Held for Investment

Loans that we have the ability and intent to hold for the foreseeable future and loans associated with consolidated securitization transactions are classified as held for investment. Loans classified as held for investment, except PCI loans described below, are reported at their amortized cost, which is the outstanding principal balance, adjusted for any unearned income, unamortized deferred fees and costs, unamortized premiums and discounts and charge-offs. Credit card loans also include billed finance charges and fees, net of the estimated uncollectible amount.

Interest income is recognized on performing loans held for investment on an accrual basis. We defer loan origination fees and direct loan origination costs on originated loans, premiums and discounts on purchased loans and loan commitment fees. We recognize these amounts in interest income as yield adjustments over the life of the loan and/or commitment period using the

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effective interest method. For credit card loans, loan origination fees and direct loan origination costs are amortized on a straight-line basis over a 12-month period. Loans held for investment are subject to our allowance for loan and lease losses methodology described below under “Allowance for Loan and Lease Losses.”

Loans Held for Sale

Loans purchased or originated with the intent to sell or for which we do not have the ability and intent to hold for the foreseeable future are classified as held for sale. These loans are recorded at the lower of cost or fair value. Loan origination fees, direct loan origination costs and any discounts and premiums are deferred until the loan is sold and are then recognized as part of the total gain or loss on sale. The fair value of loans held for sale is determined on an aggregate portfolio basis for each loan type.

If a loan is transferred from held for investment to held for sale, on the transfer date, any decline in fair value related to credit is recorded as a charge-off. Subsequent to transfer, we report write-downs or recoveries in fair value up to the carrying value at the date of transfer and realized gains or losses on loans held for sale in our consolidated statements of income as a component of other non-interest income. We calculate the gain or loss on loan sales as the difference between the proceeds received and the carrying value of the loans sold, net of the fair value of any residual interests retained.

Loans Acquired

All purchased loans, including loans transferred in a business combination, are initially recorded at fair value, which includes consideration of expected future losses, as of the date of the acquisition. To determine the fair value of loans at acquisition, we estimate discounted contractual cash flows due using an observable market rate of interest, when available, adjusted for factors that a market participant would consider in determining fair value. In determining fair value, contractual cash flows are adjusted to include prepayment estimates based upon trends in default rates and loss severities. The difference between the fair value and the contractual cash flows is recorded as a loan discount or premium at acquisition. Subsequent to acquisition, the loans are classified and accounted for as either held for investment or held for sale based on management’s ability and intent with regard to the loans. Loans held for investment are subject to our allowance for loan and lease losses methodology described below under “Allowance for Loan and Lease Losses.” We account for purchased loans under the accounting guidance for purchased credit-impaired loans and debt securities, which is based upon expected cash flows, if the purchased loans have a discount attributable, at least in part, to credit deterioration and they are not specifically scoped out of the guidance. We refer to these purchased loans that are subsequently accounted for based on expected cash flows to be collected as “PCI loans.” Other purchased loans that do not meet the criteria described above or are specifically scoped out of this guidance are accounted for based on contractual cash flows.

Loans Acquired and Accounted for Based on Expected Cash Flows

For PCI loans, the excess of cash flows expected to be collected over the estimated fair value of purchased loans is referred to as the accretable yield. This amount is not recorded on our consolidated balance sheets, but is accreted into interest income over the life of the loan, or pool of loans, using the effective interest method. The difference between total contractual payments on the loans and all expected cash flows represents the nonaccretable difference or the amount of principal and interest not considered collectible. We may aggregate loans acquired in the same fiscal quarter into one or more pools if the loans have common risk characteristics. A pool is then accounted for as a single asset, with a single composite interest rate and an aggregate fair value and expected cash flows.

Subsequent to acquisition, changes in the estimated cash flows expected to be collected may result in changes in the accretable yield and nonaccretable difference or reclassifications from the nonaccretable difference to the accretable yield. Decreases in expected cash flows resulting from credit deterioration subsequent to acquisition will generally result in an impairment charge recognized in our provision for credit losses and an increase in the allowance for loan and lease losses. Significant increases in the cash flows expected to be collected would first reduce any previously recorded allowance for loan and lease losses. The excess over the recorded allowance for loan and lease losses would result in a reclassification to the accretable yield from the nonaccretable difference and an increase in interest income recognized over the remaining life of the loan or pool of loans. Disposals of loans in the form of sales to third parties, receipt of payment in full or in part by the borrower, and foreclosure of the collateral, result in removal of the loan from the PCI loans portfolio. See “Note 4—Loans” for additional information.

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Loan Modifications and Restructurings

As part of our loss mitigation efforts, we may provide modifications to a borrower experiencing financial difficulty to improve long-term collectability of the loan and to avoid the need for foreclosure or repossession of collateral. A loan modification in which a concession is granted to a borrower experiencing financial difficulty is accounted for and reported as a troubled debt restructuring ("TDR"). Our loan modifications typically include an extension of the loan term, a reduction in the interest rate, a reduction in the loan balance, or a combination of these concessions. We describe our accounting for and measurement of impairment on TDR loans below under "Impaired Loans." See "Note 4—Loans" for additional information on our loan modifications and restructurings.

Delinquent and Nonperforming Loans

The entire balance of a loan is considered contractually delinquent if the minimum required payment is not received by the first statement cycle date equal to or following the due date specified on the customer's billing statement. Delinquency is reported on loans that are 30 or more days past due. Interest and fees continue to accrue on past due loans until the date the loan is placed on nonaccrual status, if applicable. We generally place loans on nonaccrual status when we believe the collectability of interest and principal is not reasonably assured.

Nonperforming loans generally include loans that have been placed on nonaccrual status, but we do not report loans classified as held for sale as nonperforming.

Our policies for classifying loans as nonperforming, by loan category, are as follows:

- *Credit card loans:* As permitted by regulatory guidance issued by the Federal Financial Institutions Examination Council ("FFIEC"), our policy is generally to exempt credit card loans from being classified as nonperforming, as these loans are generally charged off in the period the account becomes 180 days past due. Consistent with industry conventions, we generally continue to accrue interest and fees on delinquent credit card loans until the loans are charged-off.
- *Consumer banking loans:* We classify consumer banking loans as nonperforming when we determine that the collectability of all interest and principal on the loan is not reasonably assured, generally when the loan becomes 90 days past due.
- *Commercial banking loans:* We classify commercial banking loans as nonperforming as of the date we determine that the collectability of all interest and principal on the loan is not reasonably assured.
- *Modified loans and troubled debt restructurings:* Modified loans, including TDRs, that are current at the time of the restructuring remain on accrual status if there is demonstrated performance prior to the restructuring and continued performance under the modified terms is expected. Otherwise, the modified loan is classified as nonperforming.
- *PCI loans:* PCI loans are not classified as delinquent or nonperforming.

Interest and fees accrued but not collected at the date a loan is placed on nonaccrual status are reversed against earnings. In addition, the amortization of net deferred loan fees is suspended. Interest and fee income is subsequently recognized only upon the receipt of cash payments. However, if there is doubt regarding the ultimate collectability of loan principal, cash received is generally applied against the principal balance of the loan. Nonaccrual loans are generally returned to accrual status when all principal and interest is current and repayment of the remaining contractual principal and interest is reasonably assured, or when the loan is both well-secured and in the process of collection and collectability is no longer doubtful.

Impaired Loans

A loan is considered impaired when, based on current information and events, it is probable that we will be unable to collect all amounts due from the borrower in accordance with the original contractual terms of the loan. Generally, we report loans as impaired based on the method for measuring impairment in accordance with applicable accounting guidance. Loans held for sale are not reported as impaired, as these loans are recorded at lower of cost or fair value. Impaired loans also exclude PCI loans, as these loans are accounted for based on expected cash flows at acquisition because this accounting methodology takes into consideration future credit losses.

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Loans defined as individually impaired, based on applicable accounting guidance, include larger-balance nonperforming loans and TDR loans. Loans modified in a TDR continue to be reported as impaired until maturity. Our policies for identifying loans as individually impaired, by loan category, are as follows:

- *Credit card loans:* Credit card loans that have been modified in a troubled debt restructuring are identified and accounted for as individually impaired.
- *Consumer banking loans:* Consumer loans that have been modified in a troubled debt restructuring are identified and accounted for as individually impaired.
- *Commercial banking loans:* Commercial loans classified as nonperforming and commercial loans that have been modified in a troubled debt restructuring are reported as individually impaired.

The majority of individually impaired loans are evaluated for an asset-specific allowance. We generally measure impairment and the related asset-specific allowance for individually impaired loans based on the difference between the recorded investment of the loan and the present value of the expected future cash flows, discounted at the original effective interest rate of the loan at the time of modification. If the loan is collateral dependent, we measure impairment based upon the fair value of the underlying collateral, which we determine based on the current fair value of the collateral less estimated selling costs. Loans are identified as collateral dependent if we believe the collateral will be the primary source of repayment.

Charge-Offs

We charge off loans as a reduction to the allowance for loan and lease losses when we determine the loan is uncollectible and record subsequent recoveries of previously charged off amounts as an increase to the allowance for loan and lease losses. We exclude accrued and unpaid finance charges and fees and certain fraud losses from charge-offs. Costs to recover charged-off loans are recorded as collection expense and included in our consolidated statements of income as a component of other non-interest expense as incurred. Our charge-off time frames by loan type are presented below.

- *Credit card loans:* We generally charge-off credit card loans in the period the account becomes 180 days past due. We charge off delinquent credit card loans for which revolving privileges have been revoked as part of loan workout when the account becomes 120 days past due. Credit card loans in bankruptcy are generally charged-off by the end of the month following 30 days after the receipt of a complete bankruptcy notification from the bankruptcy court. Credit card loans of deceased account holders are charged-off by the end of the month following 60 days of receipt of notification.
- *Consumer banking loans:* We generally charge-off consumer banking loans at the earlier of the date when the account is a specified number of days past due or upon repossession of the underlying collateral. Our charge-off time frame is 180 days for home loans and 120 days for auto loans. Small business banking loans generally charge off at 120 days past due based on when unpaid principal loan amounts are deemed uncollectible. We calculate the initial charge-off amount for home loans based on the excess of our recorded investment in the loan over the fair value of the underlying property less estimated selling costs as of the date of the charge-off. We update our home value estimates on a regular basis and may recognize additional charge-offs for subsequent declines in home values. Auto and home loans where the borrower has filed for bankruptcy and the loan has not been reaffirmed charge off in the period that the loan is 60 days from the bankruptcy notification date, regardless of delinquency status. Auto and home loans that have not been charged off and have been discharged under Chapter 7 bankruptcy are charged off at the end of the month in which the bankruptcy discharge occurs. Remaining consumer loans generally are charged off within 40 days of receipt of notification from the bankruptcy court. Consumer loans of deceased account holders are charged off by the end of the month following 60 days of receipt of notification.
- *Commercial banking loans:* We charge off commercial loans in the period we determine that the unpaid principal loan amounts are uncollectible.
- *PCI loans:* We do not record charge-offs on PCI loans that are meeting or exceeding our performance expectations as of the date of acquisition, as the fair values of these loans already reflect a discount for expected future credit losses. We record charge-offs on PCI loans only if actual losses exceed estimated credit losses incorporated into the fair value recorded at acquisition.

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Allowance for Loan and Lease Losses

We maintain an allowance for loan and lease losses (“allowance”) that represents management’s best estimate of incurred loan and lease losses inherent in our held for investment portfolio as of each balance sheet date. The provision for credit losses reflects credit losses we believe have been incurred and will eventually be recognized over time in our charge-offs. Charge-offs of uncollectible amounts are deducted from the allowance and subsequent recoveries are added back.

Management performs a quarterly analysis of our loan portfolio to determine if impairment has occurred and to assess the adequacy of the allowance based on historical and current trends as well as other factors affecting credit losses. We apply documented systematic methodologies to separately calculate the allowance for our consumer loan and commercial loan portfolios. Our allowance for loan and lease losses consists of three components that are allocated to cover the estimated probable losses in each loan portfolio based on the results of our detailed review and loan impairment assessment process: (i) a component for loans collectively evaluated for impairment; (ii) an asset-specific component for individually impaired loans; and (iii) a component related to PCI loans that have experienced significant decreases in expected cash flows subsequent to acquisition. Each of our allowance components is supplemented by an amount that represents management’s qualitative judgment of the imprecision and risks inherent in the processes and assumptions used in establishing the allowance. Management’s judgment involves an assessment of subjective factors, such as process risk, modeling assumption and adjustment risks and probable internal and external events that will likely impact losses.

Our credit card and consumer loan portfolios consist of smaller-balance, homogeneous loans. The consumer loan portfolio is divided into two primary portfolio segments: auto loans and retail banking loans (see “Note 2—Business Developments” for information about our consumer home loan portfolio sale in 2018). The credit card and consumer loan portfolios are further divided by our business units into groups based on common risk characteristics, such as origination year, contract type, interest rate and geography, which are collectively evaluated for impairment. The commercial loan portfolio is primarily composed of larger-balance, non-homogeneous loans. These loans are subject to individual reviews that result in internal risk ratings. In assessing the risk rating of a particular loan, among the factors we consider are the financial condition of the borrower, geography, collateral performance, historical loss experience, and industry-specific information that management believes is relevant in determining the occurrence of a loss event and measuring impairment. These factors are based on an evaluation of historical and current information, and involve subjective assessment and interpretation. Emphasizing one factor over another or considering additional factors could impact the risk rating assigned to that loan.

The component of the allowance related to credit card and consumer loans that we collectively evaluate for impairment is based on a statistical calculation, which is supplemented by management judgment as described above. Because of the homogeneous nature of our consumer loan portfolios, the allowance is based on the aggregated portfolio segment evaluations. The allowance is established through a process that begins with estimates of incurred losses in each pool based upon various statistical analyses. Loss forecast models are utilized to estimate probable losses incurred and consider several portfolio indicators including, but not limited to, historical loss experience, account seasoning, the value of collateral underlying secured loans, estimated foreclosures or defaults based on observable trends, delinquencies, bankruptcy filings, unemployment, credit bureau scores and general economic and business trends. Management believes these factors are relevant in estimating probable losses incurred and also considers an evaluation of overall portfolio credit quality based on indicators such as changes in our credit evaluation, underwriting and collection management policies, the effect of other external factors such as competition and legal and regulatory requirements, general economic conditions and business trends, and uncertainties in forecasting and modeling techniques used in estimating our allowance. We update our credit card and consumer loss forecast models and portfolio indicators on a quarterly basis to incorporate information reflective of the current economic environment.

The component of the allowance for commercial loans that we collectively evaluate for impairment is based on our historical loss experience for loans with similar risk characteristics and consideration of the current credit quality of the portfolio, which is supplemented by management judgment as described above. We apply internal risk ratings to commercial loans, which we use to assess credit quality and derive a total loss estimate based on an estimated probability of default (“default rate”) and loss given default (“loss severity”). Management may also apply judgment to adjust the loss factors derived, taking into consideration both quantitative and qualitative factors, including general economic conditions, industry-specific and geographic trends, portfolio concentrations, trends in internal credit quality indicators, and current and past underwriting standards that have occurred but are not yet reflected in the historical data underlying our loss estimates.

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The asset-specific component of the allowance covers smaller-balance homogeneous credit card and consumer loans whose terms have been modified in a TDR and larger-balance nonperforming, non-homogeneous commercial loans. As discussed above under "Impaired Loans," we generally measure the asset-specific component of the allowance based on the difference between the recorded investment of individually impaired loans and the present value of expected future cash flows. The asset-specific component of the allowance for smaller-balance impaired loans is calculated on a pool basis using historical loss experience for the respective class of assets. The asset-specific component of the allowance for larger-balance impaired loans is individually calculated for each loan. Key considerations in determining the allowance include the borrower's overall financial condition, resources and payment history, prospects for support from financially responsible guarantors, and when applicable, the estimated realizable value of any collateral.

Applicable accounting guidance prohibits the carry over or creation of valuation allowances in the initial accounting for impaired loans acquired. See "Note 4—Loans" for information on loan portfolios associated with acquisitions.

In addition to the allowance, we also estimate probable losses related to contractually binding unfunded lending commitments, such as letters of credit, financial guarantees, and binding unfunded loan commitments. The provision for unfunded lending commitments is included in the provision for credit losses in our consolidated statements of income and the related reserve is included in other liabilities on our consolidated balance sheets. Unfunded lending commitments are subject to individual reviews and are analyzed and segregated by risk according to our internal risk rating scale, which we use to assess credit quality and derive a total loss estimate. We assess these risk classifications, taking into consideration both quantitative and qualitative factors, including historical loss experience, utilization assumptions, current economic conditions, performance trends within specific portfolio segments and other pertinent information to estimate the reserve for unfunded lending commitments.

Determining the appropriateness of the allowance is complex and requires judgment by management about the effect of matters that are inherently uncertain. Subsequent evaluations of the loan portfolio, in light of the factors then prevailing, may result in significant changes in the allowance and the reserve for unfunded lending commitments in future periods. See "Note 5—Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments" for additional information.

Securitization of Loans

Our loan securitization activities primarily involve the securitization of credit card loans, which provides a source of funding for us. See "Note 6—Variable Interest Entities and Securitizations" for additional details. Loan securitization involves the transfer of a pool of loan receivables from our portfolio to a trust. The trust then sells an undivided interest in the pool of loan receivables to third-party investors through the issuance of debt securities and transfers the proceeds from the debt issuance to us as consideration for the loan receivables transferred. The debt securities are collateralized by the receivables transferred from our portfolio. We remove loans from our consolidated balance sheets when securitizations qualify as sales to non-consolidated VIEs, recognize assets retained and liabilities assumed at fair value and record a gain or loss on the transferred loans. Alternatively, when the transfer does not qualify as a sale but instead is considered a secured borrowing, the assets will remain on our consolidated balance sheets with an offsetting liability recognized for the amount of proceeds received.

Premises and Equipment

Premises and equipment, including leasehold improvements, are carried at cost less accumulated depreciation and amortization. Land is carried at cost. We capitalize direct costs incurred during the application development stage of internally developed software projects. Depreciation and amortization expenses are calculated using the straight-line method over the estimated useful lives of the assets. Useful lives for premises and equipment are estimated as follows:

Premises and Equipment	Useful Lives
Buildings and improvements	5-39 years
Furniture and equipment	3-10 years
Computer software	3 years
Leasehold improvements	Lesser of the useful life or the remaining fixed non-cancelable lease term

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Expenditures for maintenance and repairs are expensed as incurred and gains or losses upon disposition are recognized in our consolidated statements of income as realized. See “Note 8—Premises, Equipment and Lease Commitments” for additional information.

Goodwill and Intangible Assets

Goodwill represents the excess of the acquisition price of an acquired business over the fair value of assets acquired and liabilities assumed and is assigned to one or more reporting units at the date of acquisition. A reporting unit is defined as an operating segment, or a business unit that is one level below an operating segment. We have four reporting units: Credit Card, Auto, Other Consumer Banking and Commercial Banking. Goodwill is not amortized but is tested for impairment at the reporting unit level annually or more frequently if adverse circumstances indicate that it is more likely than not that the carrying amount of a reporting unit exceeds its fair value. These indicators could include a sustained, significant decline in the Company’s stock price, a decline in expected future cash flows, significant disposition activity, a significant adverse change in the economic or business environment, and the testing for recoverability of a significant asset group, among others.

Intangible assets with finite useful lives are amortized on either an accelerated or straight-line basis over their estimated useful lives and are evaluated for impairment whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable. See “Note 7—Goodwill and Intangible Assets” for additional information.

Mortgage Servicing Rights

Mortgage servicing rights (“MSRs”) are initially recorded at fair value when mortgage loans are sold or securitized in the secondary market and the right to service these loans is retained for a fee. Subsequently, our consumer MSRs are carried at fair value on our consolidated balance sheets with changes in fair value recognized in non-interest income. Our commercial MSRs are subsequently accounted for under the amortization method and are periodically evaluated for impairment, which is recognized as a reduction in non-interest income. See “Note 7—Goodwill and Intangible Assets” and “Note 17—Fair Value Measurement” for additional information.

Foreclosed Property and Repossessed Assets

Foreclosed property and repossessed assets obtained through our lending activities typically include commercial and residential real estate or personal property, such as automobiles, and are recorded at net realizable value. For home loans collateralized by residential real estate, we reclassify loans to foreclosed property at the earlier of when we obtain legal title to the residential real estate property or when the borrower conveys all interest in the property to us. For foreclosed property and repossessed assets, we generally reclassify the loan to repossessed assets upon repossession of the property in satisfaction of the loan. Net realizable value is the estimated fair value of the underlying collateral less estimated selling costs and is based on appraisals, when available. Subsequent to initial recognition, foreclosed property and repossessed assets are recorded at the lower of our initial cost basis or net realizable value, which is routinely monitored and updated. Any changes in net realizable value and gains or losses realized from disposition of the property are recorded in other non-interest expense. See “Note 17—Fair Value Measurement” for details.

Restricted Equity Investments

We have investments in Federal Home Loan Banks (“FHLB”) stock and in the Board of Governors of the Federal Reserve System (“Federal Reserve”) stock. These investments, which are included in other assets on our consolidated balance sheets, are not marketable, are carried at cost, and are reviewed for impairment.

Litigation

In accordance with the current accounting standards for loss contingencies, we establish reserves for litigation-related matters, including mortgage representation and warranty related matters, that arise from the ordinary course of our business activities when it is probable that a loss associated with a claim or proceeding has been incurred and the amount of the loss can be reasonably estimated. See “Note 19—Commitments, Contingencies, Guarantees and Others” for additional information.

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Customer Rewards Reserve

We offer products, primarily credit cards, which include programs that allow members to earn rewards based on account activity that can be redeemed for cash (primarily in the form of statement credits), gift cards, travel, or covering eligible charges. The amount of reward that a customer earns varies based on the terms and conditions of the rewards program and product. When rewards are earned by a customer, rewards expense is generally recorded as an offset to interchange income, with a corresponding increase to the customer rewards reserve. The customer rewards reserve is computed based on the estimated future cost of earned rewards that are expected to be redeemed and is reduced as rewards are redeemed. In estimating the customer rewards reserve, we consider historical redemption and spending behavior, as well as the terms and conditions of the current rewards programs, among other factors. We expect the vast majority of all rewards earned will eventually be redeemed. The customer rewards reserve, which is included in other liabilities on our consolidated balance sheets, totaled \$4.3 billion and \$3.9 billion as of December 31, 2018 and 2017, respectively.

Revenue Recognition

Interest Income and Fees

Interest income and fees on loans and investment securities are recognized based on the contractual provisions of the underlying arrangements.

Loan origination fees and costs and premiums and discounts on loans held for investment are deferred and generally amortized into interest income as yield adjustments over the contractual life and/or commitment period using the effective interest method. In certain circumstances, we elect to factor prepayment estimates into the calculation of the constant effective yield necessary to apply the interest method. Prepayment estimates are based on historical prepayment data, existing and forecasted interest rates, and economic data. For credit card loans, loan origination fees and direct loan origination costs are amortized on a straight-line basis over a 12-month period.

Unamortized premiums, discounts and other basis adjustments on investment securities are recognized in interest income over the contractual lives of the securities using the effective interest method.

Finance charges and fees on credit card loans are recorded in revenue when earned. Billed finance charges and fees on credit card loans are included in loan receivables net of amounts that we consider uncollectible. Unbilled finance charges and fees on credit card loans are included in interest receivables. Annual membership fees are deferred and amortized into income over 12 months on a straight-line basis. We continue to accrue finance charges and fees on credit card loans until the account is charged-off. Our methodology for estimating the uncollectible portion of billed finance charges and fees is consistent with the methodology we use to estimate the allowance for incurred principal losses on our credit card loan receivables.

Interchange Income

Interchange income represents fees for standing ready to authorize and providing settlement on credit and debit card transactions processed through the MasterCard® (“MasterCard”) and Visa® (“Visa”) interchange networks. The levels and structure of interchange rates are set by MasterCard and Visa and can vary based on cardholder purchase volumes. We recognize interchange income upon settlement with the interchange networks. See “Note 18—Business Segments and Revenue from Contracts with Customers” for additional details.

Card Partnership Agreements

Our partnership agreements relate to alliances with retailers and other partners to provide lending and other services to mutual customers. We primarily issue private-label and cobrand credit card loans to these customers over the term of the partnership agreements, which typically range from two years to ten years.

Certain partners assist in or perform marketing activities on our behalf and promote our products and services to their customers. As compensation for providing these services, we often pay royalties, bounties or other special bonuses to these partners. Depending upon the nature of the payments, they are recorded as a reduction of revenue, marketing expenses or other operating expenses. Credit card partnership agreements may also provide for profit or revenue sharing which are presented as a reduction of the related revenue line item when owed to the partner.

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When a partner agrees to share a portion of the credit losses associated with the partnership, we must determine whether to report the sharing of losses on a gross or net basis in our consolidated financial statements. We evaluate the contractual provisions for the loss share payments and applicable accounting guidance to determine the manner in which to report the impact of the partnership agreement in our consolidated financial statements. Our consolidated net income is the same regardless of whether revenue and loss sharing arrangements are reported on a gross or net basis.

When loss sharing amounts due from partners are presented on a net basis, they are recorded as a reduction to our provision for credit losses in our consolidated statements of income and reduce the charge-off amounts that we report. The allowance for loan and lease losses attributable to these portfolios is also reduced by the expected reimbursements from these partners for loss sharing amounts. See “Note 5—Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments” for additional information related to our loss sharing arrangements. For loss sharing arrangements presented on a gross basis, any loss share payments due from the partner are recorded as a part of revenue, and the allowance for loan and lease losses is not reduced by the expected loss share reimbursements.

Collaborative Arrangements

A collaborative arrangement is a contractual arrangement that involves a joint operating activity between two or more parties that are active participants in the activity. These parties are exposed to significant risks and rewards based upon the economic success of the joint operating activity. We assess each of our partnership agreements with profit, revenue or loss sharing payments to determine if a collaborative arrangement exists and, if so, how revenue generated from third parties, costs incurred and transactions between participants in the collaborative arrangement should be accounted for and reported on our consolidated financial statements. We currently have one partnership agreement that meets the definition of a collaborative agreement.

We share a fixed percentage of revenues, consisting of finance charges and late fees, with the partner, and the partner is required to reimburse us for a fixed percentage of credit losses incurred. Revenues and losses related to the partner’s credit card program and partnership agreement are reported on a net basis in our consolidated financial statements. Revenue sharing amounts attributable to the partner are recorded as an offset against total net revenue in our consolidated statements of income. Interest income was reduced by \$1.3 billion in 2018 and \$1.2 billion in both 2017 and 2016, for amounts earned by the partner, as part of the partnership agreement. The impact of all of our loss sharing arrangements that are presented on a net basis is included in “Note 5—Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments.”

Stock-Based Compensation

We reserve common shares for issuance to employees, directors and third-party service providers, in various forms, including stock options, stock appreciation rights, restricted stock awards and units and performance share awards and units. In addition, we also issue cash equity units and cash-settled restricted stock units which are not counted against the common shares reserved for issuance or available for issuance because they are settled in cash.

For awards settled in shares, we generally recognize compensation expense on a straight-line basis over the award’s requisite service period based on the fair value of the award at the grant date. If an award settled in shares contains a performance condition with graded vesting, we recognize compensation expense using the accelerated attribution method. Equity units and restricted stock units that are cash-settled are accounted for as liability awards which results in quarterly expense fluctuations based on changes in our stock price through the date that the awards are settled. Awards that continue to vest after retirement are expensed over the shorter of the time period between the grant date and the final vesting period or between the grant date and when the participant becomes retirement eligible. Awards to participants who are retirement eligible at the grant date are subject to immediate expense recognition. Stock-based compensation expense is included in salaries and associate benefits in the consolidated statements of income.

Stock-based compensation expense for equity classified stock options is based on the grant date fair value, which is estimated using a Black-Scholes option pricing model. Significant judgment is required when determining the inputs into the fair value model. For awards other than stock options, the fair value of stock-based compensation used in determining compensation expense will generally equal the fair market value of our common stock on the date of grant. Certain share-settled awards have discretionary vesting conditions which result in the remeasurement of these awards at fair value each reporting period and the potential for compensation expense to fluctuate with changes in our stock price. See “Note 14—Stock-Based Compensation Plans” for additional details.

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Marketing Expenses

We expense marketing costs as incurred.

Income Taxes

We recognize the current and deferred tax consequences of all transactions that have been recognized in the financial statements using the provisions of the enacted tax laws. Current income tax expense represents our estimated taxes to be paid or refunded for the current period and includes income tax expense related to our uncertain tax positions, as well as tax-related interest and penalties. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. We record valuation allowances to reduce deferred tax assets to the amount that is more likely than not to be realized. We record the effect of remeasuring deferred tax assets and liabilities due to a change in tax rates or laws as a component of income tax expense related to continuing operations for the period in which the change is enacted. We subsequently release income tax effects stranded in AOCI using a portfolio approach. Income tax benefits are recognized when, based on their technical merits, they are more likely than not to be sustained upon examination. The amount recognized is the largest amount of benefit that is more likely than not to be realized upon settlement. See “Note 16—Income Taxes” for additional details.

Earnings Per Share

Earnings per share is calculated and reported under the “two-class” method. The “two-class” method is an earnings allocation method under which earnings per share is calculated for each class of common stock and participating security considering both dividends declared or accumulated and participation rights in undistributed earnings as if all such earnings had been distributed during the period. We have unvested share-based payment awards which have a right to receive nonforfeitable dividends. These share-based payment awards are deemed to be participating securities.

We calculate basic earnings per share by dividing net income, after deducting dividends on preferred stock and participating securities as well as undistributed earnings allocated to participating securities, by the average number of common shares outstanding during the period, net of any treasury shares. We calculate diluted earnings per share in a similar manner after consideration of the potential dilutive effect of common stock equivalents on the average number of common shares outstanding during the period. Common stock equivalents include warrants, stock options, restricted stock awards and units, and performance share awards and units. Common stock equivalents are calculated based upon the treasury stock method using an average market price of common shares during the period. Dilution is not considered when a net loss is reported. Common stock equivalents that have an antidilutive effect are excluded from the computation of diluted earnings per share. See “Note 13—Earnings Per Common Share” for additional details.

Derivative Instruments and Hedging Activities

All derivative financial instruments, whether designated for hedge accounting or not, are reported at their fair value on our consolidated balance sheets as either assets or liabilities, with consideration of legally enforceable master netting arrangements that allow us to net settle positive and negative positions and offset cash collateral with the same counterparty. We report net derivatives in a gain position, or derivative assets, on our consolidated balance sheets as a component of other assets. We report net derivatives in a loss position, or derivative liabilities, on our consolidated balance sheets as a component of other liabilities. See “Note 10—Derivative Instruments and Hedging Activities” for additional details.

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Fair Value

Fair value, also referred to as an exit price, is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The fair value accounting guidance provides a three-level fair value hierarchy for classifying financial instruments. This hierarchy is based on whether the inputs to the valuation techniques used to measure fair value are observable or unobservable. Fair value measurement of a financial asset or liability is assigned to a level based on the lowest level of any input that is significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are described below:

- Level 1: Valuation is based on quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Valuation is based on observable market-based inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Valuation is generated from techniques that use significant assumptions not observable in the market. Valuation techniques include pricing models, discounted cash flow methodologies or similar techniques.

The accounting guidance for fair value requires that we maximize the use of observable inputs and minimize the use of unobservable inputs in determining fair value. The accounting guidance also provides for the irrevocable option to elect, on a contract-by-contract basis, to measure certain financial assets and liabilities at fair value at inception of the contract and record any subsequent changes to fair value in the consolidated statements of income. We have not made any material fair value option elections as of and for the years ended December 31, 2018, 2017 and 2016. See "Note 17—Fair Value Measurement" for additional information.

Accounting for Acquisitions

We account for business combinations under the acquisition method of accounting. Under the acquisition method, tangible and intangible identifiable assets acquired, liabilities assumed and any noncontrolling interest in the acquiree are recorded at fair value as of the acquisition date, with limited exceptions. Transaction costs and costs to restructure the acquired company are expensed as incurred. Goodwill is recognized as the excess of the acquisition price over the estimated fair value of the identifiable net assets acquired. Likewise, if the fair value of the net assets acquired is greater than the acquisition price, a bargain purchase gain is recognized and recorded in other non-interest income.

If the acquired set of activities and assets do not meet the accounting definition of a business, the transaction is accounted for as an asset acquisition. In an asset acquisition, the assets acquired are recorded at the purchase price plus any transaction costs incurred and no goodwill is recognized.

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Newly Adopted Accounting Standards

Standard	Guidance	Adoption Timing and Financial Statements Impacts
<p>Accounting Implications of the Tax Act</p> <p>Accounting Standards Update (“ASU”) No. 2018-05, Income Taxes (Topic 740): <i>Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118</i></p> <p>Issued March 2018</p>	<p>Codifies the SEC Staff views expressed in Staff Accounting Bulletin No. 118, <i>Income Tax Accounting Implications of the Tax Cuts and Jobs Act</i>.</p> <p>Addresses situations where an entity’s accounting for the income tax effects of the Tax Act is incomplete upon issuance of the entity’s financial statements for the reporting period in which the Tax Act was enacted.</p>	<p>We adopted this standard in the first quarter of 2018.</p> <p>In accordance with Staff Accounting Bulletin No. 118, we included certain provisional amounts for the income tax effects of the Tax Act in our consolidated financial statements as of and for the year ended December 31, 2017.</p> <p>As of December 2018, we completed our accounting for the income tax effects of the Tax Act.</p> <p>We did not have any significant measurement period adjustments in the year ended December 31, 2018.</p>
<p>Reclassification of Stranded Tax Effects</p> <p>ASU No. 2018-02, Income Statement—Reporting Comprehensive Income (Topic 220): <i>Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income</i></p> <p>Issued February 2018</p>	<p>Allows a one-time reclassification from AOCI to retained earnings for tax effects stranded in AOCI as a result of the Tax Act.</p>	<p>We early adopted this standard in the first quarter of 2018, resulting in a decrease to AOCI and an increase to retained earnings of \$173 million.</p> <p>Our reclassification included the effects of the reduction in the federal corporate income tax rate enacted by the Tax Act and the resulting impacts on the federal benefit of deducting state income taxes.</p>
<p>Hedge Accounting Improvements</p> <p>ASU No. 2017-12, Derivatives and Hedging (Topic 815): <i>Targeted Improvements to Accounting for Hedging Activities</i></p> <p>Issued August 2017</p>	<p>Eliminates the concept of separately measuring and reporting hedge ineffectiveness.</p> <p>Requires entities to present the earnings effect of a hedging instrument in the same income statement line item in which the earnings effect of the hedged item is reported.</p> <p>For a closed pool of pre-payable financial assets, allows entities to hedge an amount that is not expected to be affected by prepayments, defaults and other events under the “last-of-layer” method.</p> <p>Permits a one-time reclassification of debt securities eligible to be hedged under the “last-of-layer” method from held to maturity to available for sale upon adoption.</p>	<p>We early adopted this standard in the first quarter of 2018 under the modified retrospective transition method.</p> <p>As permitted by this standard, and in order to optimize our investment portfolio management for capital and risk management considerations, we made a one-time election to transfer \$9.0 billion of held to maturity securities eligible to be hedged under the “last-of-layer” method to the available for sale category, resulting in an increase to AOCI of \$82 million after-tax (\$107 million pre-tax). See “Note 3—Investment Securities” and “Note 10—Derivative Instruments and Hedging Activities” for additional information on the impacts of the transfer, as well as the disclosures required under the new guidance.</p>
<p>Statement of Cash Flows Classification</p> <p>ASU No. 2016-15, Statement of Cash Flows (Topic 230): <i>Classification of Certain Cash Receipts and Cash Payments</i></p> <p>Issued August 2016</p>	<p>Clarifies or creates guidance for eight specific transactions to reduce the identified diversity in practice when presenting or classifying the transactions in the statement of cash flows.</p>	<p>We adopted this standard in the first quarter of 2018 under the retrospective transition method and our adoption did not have a material impact on our consolidated financial statements.</p>

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Standard	Guidance	Adoption Timing and Financial Statements Impacts
Recognition and Measurement ASU No. 2016-01, Financial Instruments—Overall (Subtopic 825-10): <i>Recognition and Measurement of Financial Assets and Financial Liabilities</i> <i>Issued January 2016</i>	Requires entities to measure equity investments at fair value with changes in fair value recorded through net income, except those accounted for under the equity method of accounting, or those that do not have a readily determinable fair value (for which a measurement alternative can be elected).	We adopted this standard in the first quarter of 2018 under the modified retrospective transition method and our adoption did not have a material impact on our consolidated financial statements.
Revenue Recognition ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606) <i>Issued May 2014</i>	<p>Replaces significant portions of existing industry and transaction-specific revenue recognition rules with a more principles-based recognition model.</p> <p>Most revenue associated with financial instruments, including interest income, loan origination fees and credit card fees, is outside the scope of the guidance. Gains and losses on investment securities, derivatives and sales of financial instruments are similarly excluded from the scope.</p>	<p>We adopted this standard in the first quarter of 2018 under the modified retrospective transition method.</p> <p>We determined interchange fees earned on credit and debit card transactions, net of any related customer rewards, are in the scope of the amended guidance. We assessed the impact of the new guidance by evaluating our contracts, identifying our performance obligations, determining when the performance obligations were satisfied to allow us to recognize revenue and determining the amount of revenue to recognize. As a result of this analysis, we determined our recognition, measurement and presentation of interchange fees net of customer rewards costs will remain consistent with our past practices.</p> <p>Our adoption did not have a material impact on our consolidated financial statements. See “Note 18— Business Segments and Revenue from Contracts with Customers” for the new disclosures required under this guidance.</p>

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Accounting Standards Issued but Not Adopted as of December 31, 2018

Standard	Guidance	Accounting Standards Issued but Not Adopted as of December 31, 2018
<p>Cloud Computing</p> <p>ASU No. 2018-15, Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): <i>Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract</i></p> <p><i>Issued August 2018</i></p>	<p>Aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license).</p>	<p>Effective January 1, 2020, with early adoption permitted, using either the retrospective or prospective method of adoption.</p> <p>We plan to adopt the standard on its effective date and are currently evaluating the expected impact of such adoption.</p>
<p>Premium Amortization on Callable Debt</p> <p>ASU No. 2017-08, Receivables—Nonrefundable Fees and Other Costs (Subtopic 310-20): <i>Premium Amortization on Purchased Callable Debt Securities</i></p> <p><i>Issued March 2017</i></p>	<p>Shortens the amortization period from the contractual life to the earliest call date for certain purchased callable debt securities held at a premium.</p>	<p>We adopted this guidance in the first quarter of 2019 using the modified retrospective method of adoption.</p> <p>Our adoption of this standard did not have a material impact on our consolidated financial statements.</p>
<p>Goodwill Impairment Test Simplification</p> <p>ASU No. 2017-04, Intangibles—Goodwill and Other (Topic 350): <i>Simplifying the Test for Goodwill Impairment</i></p> <p><i>Issued January 2017</i></p>	<p>Eliminates the second step from the current goodwill impairment test.</p> <p>Under the current guidance, the first step compares a reporting unit’s carrying value to its fair value. If the carrying value exceeds fair value, an entity performs the second step, which assigns the reporting unit’s fair value to its assets and liabilities, including unrecognized assets and liabilities, in the same manner as required in purchase accounting.</p> <p>Under the new guidance, any impairment of a reporting unit’s goodwill is determined based on the amount by which the reporting unit’s carrying value exceeds its fair value, limited to the amount of goodwill allocated to the reporting unit.</p>	<p>Effective January 1, 2020, with early adoption permitted, using the prospective method of adoption.</p> <p>We plan to adopt the standard on its effective date and do not expect such adoption to have a material impact on our consolidated financial statements.</p>

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Standard	Guidance	Accounting Standards Issued but Not Adopted as of December 31, 2018
Current Expected Credit Loss (“CECL”) ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): <i>Measurement of Credit Losses on Financial Instruments</i> <i>Issued June 2016</i>	<p>Requires the use of current expected credit loss model that is based on expected rather than incurred losses to determine our allowance for credit losses on financial assets measured at amortized cost, certain net investments in leases and certain off-balance sheet arrangements.</p> <p>Replaces current accounting for PCI and impaired loans.</p> <p>Amends the other-than-temporary impairment model for available for sale debt securities to require that credit losses (and subsequent recoveries) be recorded through an allowance approach, rather than through permanent write-downs for credit losses and subsequent accretion of positive changes through interest income over time.</p>	<p>Effective January 1, 2020, with early adoption permitted no earlier than January 1, 2019, using the modified retrospective method of adoption.</p> <p>We plan to adopt the standard on its effective date.</p> <p>We have established a company-wide, cross-functional governance structure for our implementation of this standard. We are in the process of determining key accounting interpretations, data requirements and necessary changes to our credit loss estimation methods, processes and systems.</p> <p>We continue to assess the potential impact on our consolidated financial statements and related disclosures.</p> <p>We currently expect our adoption of this guidance will result in an increase to our reserves for credit losses on financial instruments due to the requirement to record expected losses over the remaining contractual lives of our financial instruments; however, the actual impact will depend on the characteristics of our financial instruments, economic conditions, and our economic and loss forecasts at the adoption date.</p>
Leases ASU No. 2016-02, Leases (Topic 842) <i>Issued February 2016</i>	<p>Requires lessees to recognize right of use assets and lease liabilities on their consolidated balance sheets and disclose key information about all their leasing arrangements, with certain practical expedients.</p>	<p>We adopted this guidance in the first quarter of 2019, using the modified retrospective method of adoption without restating prior periods.</p> <p>We elected the practical expedients that permitted us to not reassess the lease classification of existing leases, whether existing contracts contain a lease or the treatment of initial direct costs on existing leases.</p> <p>Upon adoption, we recorded a lease liability of \$1.9 billion and right of use asset of \$1.6 billion, which is net of other lease-related balances.</p> <p>We do not expect material changes to the recognition of operating lease expense in our consolidated statements of income as a result of adopting this guidance.</p>

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NOTE 2—BUSINESS DEVELOPMENTS

Business Developments

We periodically initiate restructuring activities to support business strategies and enhance our overall operational efficiency. These restructuring activities have primarily consisted of exiting certain business locations and activities as well as the realignment of resources supporting various businesses, including the decisions within Consumer Banking business to cease new originations of home loan lending products in the fourth quarter of 2017, to sell our online retail brokerage business in the first quarter of 2018 and to sell all of our consumer home loan portfolio in 2018. The charges incurred as a result of these restructuring activities have primarily consisted of severance and related benefits pursuant to our ongoing benefit programs, which are included in salaries and associate benefits within non-interest expense in our consolidated statements of income, as well as impairment of certain assets related to business locations and activities being exited, which are generally included in occupancy and equipment within non-interest expense. During 2018 and 2017, we recognized restructuring charges of \$34 million and \$184 million, respectively, which are reflected in the Other category of our business segment results.

In 2018, we sold all of our consumer home loan portfolio and recognized a net gain of approximately \$499 million in the Other category, including a benefit for credit losses of \$46 million. The impact of the sale of our consumer home loan portfolio in our consolidated statements of cash flows is included in net changes in loans held for investment. We also sold our online retail brokerage business in 2018 and transferred approximately \$1.4 billion of customer deposits and an equal cash amount to the third-party purchaser. The impact of the sale of our online retail brokerage business is included in net cash from other investing activities in our consolidated statements of cash flows.

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NOTE 3—INVESTMENT SECURITIES

Our investment securities portfolio consists primarily of the following: U.S. Treasury securities; U.S. government-sponsored enterprise or agency (“Agency”) and non-agency RMBS; Agency CMBS; and other securities. Agency securities include Government National Mortgage Association (“Ginnie Mae”) guaranteed securities, Federal National Mortgage Association (“Fannie Mae”) and Federal Home Loan Mortgage Corporation (“Freddie Mac”) issued securities. The carrying value of our investments in U.S. Treasury and Agency securities represented 96% and 95% of our total investment securities as of December 31, 2018 and 2017, respectively.

We classify investment securities as either available for sale or held to maturity. As of December 31, 2018 and 2017, we had investment securities available for sale of \$46.2 billion and \$37.7 billion, respectively, and securities held to maturity of \$36.8 billion and \$29.0 billion, respectively.

The table below presents the amortized cost, gross unrealized gains and losses, and fair value of securities available for sale as of December 31, 2018 and 2017.

Table 3.1: Investment Securities Available for Sale

	December 31, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<i>(Dollars in millions)</i>				
Investment securities available for sale:				
U.S. Treasury securities	\$ 6,146	\$ 15	\$ (17)	\$ 6,144
RMBS:				
Agency	32,710	62	(869)	31,903
Non-agency	1,440	304	(2)	1,742
Total RMBS	34,150	366	(871)	33,645
Agency CMBS	4,806	11	(78)	4,739
Other securities ⁽¹⁾	1,626	2	(6)	1,622
Total investment securities available for sale	\$ 46,728	\$ 394	\$ (972)	\$ 46,150

	December 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<i>(Dollars in millions)</i>				
Investment securities available for sale:				
U.S. Treasury securities	\$ 5,168	\$ 11	\$ (8)	\$ 5,171
RMBS:				
Agency	26,013	67	(402)	25,678
Non-agency	1,722	393	(1)	2,114
Total RMBS	27,735	460	(403)	27,792
Agency CMBS	3,209	10	(44)	3,175
Other securities ⁽¹⁾	1,516	4	(3)	1,517
Total investment securities available for sale	\$ 37,628	\$ 485	\$ (458)	\$ 37,655

⁽¹⁾ Includes primarily supranational bonds, foreign government bonds and other asset-backed securities.

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The table below presents the amortized cost, carrying value, gross unrealized gains and losses, and fair value of securities held to maturity as of December 31, 2018 and 2017. In the first quarter of 2018, we made a one-time transfer of held to maturity securities with a carrying value of \$9.0 billion to available for sale as a result of our adoption of ASU No. 2017-12. These securities had pre-tax unrealized losses of \$535 million (\$407 million after-tax) in AOCI prior to the transfer. See “Note 1—Summary of Significant Accounting Policies” and “Note 11—Stockholders’ Equity” for more information.

Table 3.2: Investment Securities Held to Maturity

December 31, 2018						
<i>(Dollars in millions)</i>	Amortized Cost	Unrealized Losses Recorded in AOCI	Carrying Value	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Agency RMBS	\$ 33,299	\$ (238)	\$ 33,061	\$ 293	\$ (377)	\$ 32,977
Agency CMBS	3,723	(13)	3,710	21	(89)	3,642
Total investment securities held to maturity	<u>\$ 37,022</u>	<u>\$ (251)</u>	<u>\$ 36,771</u>	<u>\$ 314</u>	<u>\$ (466)</u>	<u>\$ 36,619</u>

December 31, 2017						
<i>(Dollars in millions)</i>	Amortized Cost	Unrealized Losses Recorded in AOCI	Carrying Value	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasury securities	\$ 200	\$ 0	\$ 200	\$ 0	\$ 0	\$ 200
Agency RMBS	25,741	(761)	24,980	565	(150)	25,395
Agency CMBS	3,882	(78)	3,804	70	(32)	3,842
Total investment securities held to maturity	<u>\$ 29,823</u>	<u>\$ (839)</u>	<u>\$ 28,984</u>	<u>\$ 635</u>	<u>\$ (182)</u>	<u>\$ 29,437</u>

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Investment Securities in a Gross Unrealized Loss Position

The table below provides, by major security type, information about our securities available for sale in a gross unrealized loss position and the length of time that individual securities have been in a continuous unrealized loss position as of December 31, 2018 and 2017.

Table 3.3: Securities in a Gross Unrealized Loss Position

	December 31, 2018					
	Less than 12 Months		12 Months or Longer		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
<i>(Dollars in millions)</i>						
Investment securities available for sale:						
U.S. Treasury securities	\$ 2,543	\$ (3)	\$ 1,076	\$ (14)	\$ 3,619	\$ (17)
RMBS:						
Agency	7,863	(260)	18,118	(609)	25,981	(869)
Non-agency	89	(2)	10	0	99	(2)
Total RMBS	7,952	(262)	18,128	(609)	26,080	(871)
Agency CMBS	2,004	(31)	1,540	(47)	3,544	(78)
Other securities	244	(1)	678	(5)	922	(6)
Total investment securities available for sale in a gross unrealized loss position	<u>\$ 12,743</u>	<u>\$ (297)</u>	<u>\$ 21,422</u>	<u>\$ (675)</u>	<u>\$ 34,165</u>	<u>\$ (972)</u>
	December 31, 2017					
	Less than 12 Months		12 Months or Longer		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses

As of December 31, 2018, the amortized cost of approximately 1,390 securities available for sale exceeded their fair value by \$972 million, of which \$675 million related to securities that had been in a loss position for 12 months or longer. As of December 31, 2018, the carrying value of approximately 360 securities classified as held to maturity exceeded their fair value by \$466 million.

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Maturities and Yields of Investment Securities

The table below summarizes, by major security type, the contractual maturities and weighted-average yields of our investment securities as of December 31, 2018. Because borrowers may have the right to call or prepay certain obligations, the expected maturities of our securities are likely to differ from the scheduled contractual maturities presented below. The weighted-average yield below represents the effective yield for the investment securities and is calculated based on the amortized cost of each security.

Table 3.4: Contractual Maturities and Weighted-Average Yields of Securities

<i>(Dollars in millions)</i>	December 31, 2018				
	Due in 1 Year or Less	Due > 1 Year through 5 Years	Due > 5 Years through 10 Years	Due > 10 Years	Total
Fair value of securities available for sale:					
U.S. Treasury securities	\$ 447	\$ 784	\$ 4,913	\$ 0	\$ 6,144
RMBS⁽¹⁾:					
Agency	6	23	724	31,150	31,903
Non-agency	0	0	0	1,742	1,742
Total RMBS	6	23	724	32,892	33,645
Agency CMBS ⁽¹⁾	7	1,778	1,687	1,267	4,739
Other securities	233	1,027	342	20	1,622
Total securities available for sale	\$ 693	\$ 3,612	\$ 7,666	\$ 34,179	\$ 46,150
Amortized cost of securities available for sale	\$ 695	\$ 3,642	\$ 7,680	\$ 34,711	\$ 46,728
Weighted-average yield for securities available for sale	1.46%	2.29%	2.49%	2.95%	2.80%
Carrying value of securities held to maturity:					
Agency RMBS ⁽¹⁾	\$ 0	\$ 0	\$ 51	\$ 33,010	\$ 33,061
Agency CMBS ⁽¹⁾	0	69	449	3,192	3,710
Total securities held to maturity	\$ 0	\$ 69	\$ 500	\$ 36,202	\$ 36,771
Fair value of securities held to maturity	\$ 0	\$ 70	\$ 487	\$ 36,062	\$ 36,619
Weighted-average yield for securities held to maturity	0.00%	3.53%	2.95%	3.31%	3.30%

⁽¹⁾ As of December 31, 2018, the weighted-average expected maturities of RMBS and CMBS are 6.6 years and 5.3 years, respectively.

Other-Than-Temporary Impairment

We evaluate all securities in an unrealized loss position at least quarterly, and more often as market conditions require, to assess whether the impairment is other-than-temporary. Our OTTI assessment is based on a discounted cash flow analysis which requires careful use of judgments and assumptions. A number of qualitative and quantitative criteria may be considered in our assessment, as applicable, including the size and the nature of the portfolio; historical and projected performance such as prepayment, default and loss severity for the RMBS portfolio; recent credit events specific to the issuer and/or industry to which the issuer belongs; the payment structure of the security; external credit ratings of the issuer and any failure or delay of the issuer to make scheduled interest or principal payments; the value of underlying collateral; our intent and ability to hold the security; and current and projected market and macro-economic conditions.

If we intend to sell a security in an unrealized loss position or it is more likely than not that we will be required to sell the security prior to recovery of its amortized cost basis, the entire difference between the amortized cost basis of the security and its fair value is recognized in earnings. As of December 31, 2018, we had sold all securities previously designated with the intent to sell, and did not intend to sell, nor believe that we will be required to sell, any other security in an unrealized loss position prior to the recovery of its amortized cost basis.

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For those securities that we do not intend to sell nor expect to be required to sell, an analysis is performed to determine if any of the impairment is due to credit-related factors or whether it is due to other factors, such as interest rates. Credit-related impairment is recognized in earnings, with the remaining unrealized non-credit-related impairment recorded in AOCI. We determine the credit component based on the difference between the security's amortized cost basis and the present value of its expected cash flows, discounted at the security's effective yield.

Realized Gains and Losses on Securities and OTTI Recognized in Earnings

The following table presents the gross realized gains and losses on the sale of securities available for sale, and the OTTI losses recognized in earnings for the years ended December 31, 2018, 2017 and 2016. We also present the proceeds from the sale of securities available for sale for the periods presented. We did not sell any investment securities that are classified as held to maturity.

Table 3.5: Realized Gains (Losses) on Securities and OTTI Recognized in Earnings

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Realized gains (losses):			
Gross realized gains	\$ 13	\$ 144	\$ 12
Gross realized losses	(21)	(74)	(6)
Net realized gains (losses)	(8)	70	6
OTTI recognized in earnings:			
Credit-related OTTI	(1)	(2)	(11)
Intent-to-sell OTTI	(200)	(3)	(6)
Total OTTI recognized in earnings	(201)	(5)	(17)
Net securities gains (losses)	\$ (209)	\$ 65	\$ (11)
Total proceeds from sales	\$ 6,399	\$ 8,181	\$ 4,146

The cumulative credit loss component of the OTTI losses that have been recognized in our consolidated statements of income related to the securities that we do not intend to sell was \$140 million and \$147 million as of December 31, 2018 and 2017, respectively.

Securities Pledged and Received

We pledged securities available for sale and held to maturity totaling \$16.3 billion and \$8.5 billion as of December 31, 2018 and 2017, respectively. These securities are pledged to primarily secure FHLB advances and Public Funds deposits, as well as for other purposes as required or permitted by law. We accepted pledges of securities with a fair value of \$1 million as of both December 31, 2018 and 2017, primarily related to our derivative transactions.

Purchased Credit-Impaired Debt Securities

The table below presents the outstanding balance and carrying value of the purchased credit-impaired debt securities as of December 31, 2018 and 2017.

Table 3.6: Outstanding Balance and Carrying Value of Purchased Credit-Impaired Debt Securities

<i>(Dollars in millions)</i>	December 31, 2018	December 31, 2017
Outstanding balance	\$ 1,784	\$ 2,131
Carrying value	1,537	1,843

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Changes in Accretable Yield of Purchased Credit-Impaired Debt Securities

The following table presents changes in the accretable yield related to the purchased credit-impaired debt securities for the years ended December 31, 2018, 2017 and 2016.

Table 3.7: Changes in the Accretable Yield of Purchased Credit-Impaired Debt Securities

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Accretable yield, beginning of period	\$ 826	\$ 1,173	\$ 1,237
Accretion recognized in earnings	(153)	(182)	(206)
Reduction due to payoffs, disposals, transfers and other	(3)	(157)	(2)
Net reclassifications (to) from nonaccretable difference	28	(8)	144
Accretable yield, end of period	<u>\$ 698</u>	<u>\$ 826</u>	<u>\$ 1,173</u>

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NOTE 4—LOANS

Loan Portfolio Composition

Our loan portfolio consists of loans held for investment, including loans held in our consolidated trusts, and loans held for sale, and is divided into three portfolio segments: credit card, consumer banking and commercial banking. Credit card loans consist of domestic and international credit card loans. Consumer banking loans consist of auto and retail banking loans and in prior periods also consisted of home loans. Commercial banking loans consist of commercial and multifamily real estate, commercial and industrial, and small-ticket commercial real estate loans. We sold all of our consumer home loan portfolio and the related servicing during 2018.

Credit Quality

We closely monitor economic conditions and loan performance trends to manage and evaluate our exposure to credit risk. Trends in delinquency rates are an indicator, among other considerations, of credit risk within our loan portfolio. The level of nonperforming loans represents another indicator of the potential for future credit losses. Accordingly, key metrics we track and use in evaluating the credit quality of our loan portfolio include delinquency and nonperforming loan rates, as well as net charge-off rates and our internal risk ratings of larger-balance commercial loans. The credit metrics presented in this section exclude loans held for sale, which are carried at lower of cost or fair value.

The table below presents the composition and an aging analysis of our loans held for investment portfolio as of December 31, 2018 and 2017. The delinquency aging includes all past due loans, both performing and nonperforming.

Table 4.1: Loan Portfolio Composition and Aging Analysis

<i>(Dollars in millions)</i>	December 31, 2018						
	Current	30-59 Days	60-89 Days	≥ 90 Days	Total Delinquent Loans	PCI Loans	Total Loans
Credit Card:							
Domestic credit card	\$ 103,014	\$ 1,270	\$ 954	\$ 2,111	\$ 4,335	\$ 1	\$ 107,350
International card businesses	8,678	127	78	128	333	0	9,011
Total credit card	111,692	1,397	1,032	2,239	4,668	1	116,361
Consumer Banking:							
Auto	52,032	2,624	1,326	359	4,309	0	56,341
Retail banking	2,809	23	8	20	51	4	2,864
Total consumer banking	54,841	2,647	1,334	379	4,360	4	59,205
Commercial Banking:							
Commercial and multifamily real estate	28,737	101	20	19	140	22	28,899
Commercial and industrial	40,704	135	43	101	279	108	41,091
Total commercial lending	69,441	236	63	120	419	130	69,990
Small-ticket commercial real estate	336	2	1	4	7	0	343
Total commercial banking	69,777	238	64	124	426	130	70,333
Total loans⁽¹⁾	\$ 236,310	\$ 4,282	\$ 2,430	\$ 2,742	\$ 9,454	\$ 135	\$ 245,899
% of Total loans	96.1%	1.7%	1.0%	1.1%	3.8%	0.1%	100.0%

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December 31, 2017

<i>(Dollars in millions)</i>	December 31, 2017						
	Current	30-59 Days	60-89 Days	≥ 90 Days	Total Delinquent Loans	PCI Loans	Total Loans
Credit Card:							
Domestic credit card	\$ 101,072	\$ 1,211	\$ 915	\$ 2,093	\$ 4,219	\$ 2	\$ 105,293
International card businesses	9,110	144	81	134	359	0	9,469
Total credit card	110,182	1,355	996	2,227	4,578	2	114,762
Consumer Banking:							
Auto	50,151	2,483	1,060	297	3,840	0	53,991
Home loan	7,235	37	16	70	123	10,275	17,633
Retail banking	3,389	24	5	18	47	18	3,454
Total consumer banking	60,775	2,544	1,081	385	4,010	10,293	75,078
Commercial Banking:							
Commercial and multifamily real estate	26,018	41	17	49	107	25	26,150
Commercial and industrial	37,412	1	70	87	158	455	38,025
Total commercial lending	63,430	42	87	136	265	480	64,175
Small-ticket commercial real estate	393	2	1	4	7	0	400
Total commercial banking	63,823	44	88	140	272	480	64,575
Other loans	54	2	1	1	4	0	58
Total loans ⁽¹⁾	\$ 234,834	\$ 3,945	\$ 2,166	\$ 2,753	\$ 8,864	\$ 10,775	\$ 254,473
% of Total loans	92.3%	1.5%	0.9%	1.1%	3.5%	4.2%	100.0%

⁽¹⁾ Loans, other than PCI loans, include unamortized premiums and discounts, and unamortized deferred fees and costs totaling \$818 million and \$773 million as of December 31, 2018 and 2017, respectively.

We pledged loan collateral of \$15.8 billion and \$27.3 billion to secure a portion of our FHLB borrowing capacity of \$19.3 billion and \$21.0 billion as of December 31, 2018 and 2017, respectively. We also pledged loan collateral of \$9.2 billion and \$9.1 billion to secure our Federal Reserve Discount Window borrowing capacity of \$7.6 billion and \$7.4 billion as of December 31, 2018 and 2017, respectively. In addition to loans pledged, we securitized a portion of our credit card loans, see "Note 6—Variable Interest Entities and Securitizations" for additional information.

The following table presents the outstanding balance of loans 90 days or more past due that continue to accrue interest and loans classified as nonperforming as of December 31, 2018 and 2017. Nonperforming loans generally include loans that have been placed on nonaccrual status. PCI loans are excluded from the table below.

Table 4.2: 90+ Day Delinquent Loans Accruing Interest and Nonperforming Loans

<i>(Dollars in millions)</i>	December 31, 2018		December 31, 2017	
	≥ 90 Days and Accruing	Nonperforming Loans	≥ 90 Days and Accruing	Nonperforming Loans
Credit Card:				
Domestic credit card	\$ 2,111	N/A	\$ 2,093	N/A
International card businesses	122	\$ 22	128	\$ 24
Total credit card	2,233	22	2,221	24
Consumer Banking:				
Auto	0	449	0	376
Home loan	0	0	0	176
Retail banking	0	30	0	35
Total consumer banking	0	479	0	587

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	December 31, 2018		December 31, 2017	
	≥ 90 Days and Accruing	Nonperforming Loans	≥ 90 Days and Accruing	Nonperforming Loans
<i>(Dollars in millions)</i>				
Commercial Banking:				
Commercial and multifamily real estate	\$ 0	\$ 83	\$ 12	\$ 38
Commercial and industrial	0	223	0	239
Total commercial lending	0	306	12	277
Small-ticket commercial real estate	0	6	0	7
Total commercial banking	0	312	12	284
Other loans	0	0	0	4
Total	\$ 2,233	\$ 813	\$ 2,233	\$ 899
% of Total loans held for investment	0.91%	0.33%	0.88%	0.35%

Credit Card

Our credit card loan portfolio is highly diversified across millions of accounts and numerous geographies without significant individual exposure. We therefore generally manage credit risk based on portfolios with common risk characteristics. The risk in our credit card loan portfolio correlates to broad economic trends, such as unemployment rates and home values, as well as consumers' financial condition, all of which can have a material effect on credit performance. The primary indicators we assess in monitoring the credit quality and risk of our credit card portfolio are delinquency and charge-off trends, including an analysis of loan migration between delinquency categories over time.

The table below displays the geographic profile of our credit card loan portfolio as of December 31, 2018 and 2017.

Table 4.3: Credit Card Risk Profile by Geographic Region

	December 31, 2018		December 31, 2017	
	Amount	% of Total	Amount	% of Total
<i>(Dollars in millions)</i>				
Domestic credit card:				
California	\$ 11,591	10.0%	\$ 11,475	10.0%
Texas	8,173	7.0	7,847	6.8
New York	7,400	6.4	7,389	6.4
Florida	7,086	6.1	6,790	5.9
Illinois	4,761	4.1	4,734	4.1
Pennsylvania	4,575	3.9	4,550	4.0
Ohio	3,967	3.4	3,929	3.4
New Jersey	3,641	3.1	3,621	3.2
Michigan	3,544	3.0	3,523	3.1
Other	52,612	45.3	51,435	44.8
Total domestic credit card	107,350	92.3	105,293	91.7
International card businesses:				
Canada	6,023	5.1	6,286	5.5
United Kingdom	2,988	2.6	3,183	2.8
Total international card businesses	9,011	7.7	9,469	8.3
Total credit card	\$ 116,361	100.0%	\$ 114,762	100.0%

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The table below presents net charge-offs for the years ended December 31, 2018, 2017 and 2016.

Table 4.4: Credit Card Net Charge-Offs

<i>(Dollars in millions)</i>	Year Ended December 31,					
	2018		2017		2016	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Net charge-offs:⁽¹⁾						
Domestic credit card	\$ 4,782	4.74%	\$ 4,739	4.99%	\$ 3,681	4.16%
International card businesses	287	3.19	315	3.69	272	3.33
Total credit card	<u>\$ 5,069</u>	4.62	<u>\$ 5,054</u>	4.88	<u>\$ 3,953</u>	4.09

⁽¹⁾ Net charge-offs consist of the unpaid principal balance of loans held for investment that we determine to be uncollectible, net of recovered amounts. Net charge-off rate is calculated by dividing net charge-offs by average loans held for investment for the period for each loan category. Net charge-offs and the net charge-off rate are impacted periodically by fluctuations in recoveries, including loan sales.

Consumer Banking

Our consumer banking loan portfolio consists of auto and retail banking loans and in prior periods also consisted of home loans. Similar to our credit card loan portfolio, the risk in our consumer banking loan portfolio correlates to broad economic trends, such as unemployment rates, gross domestic product and home values, as well as consumers' financial condition, all of which can have a material effect on credit performance. Delinquency, nonperforming loans and charge-off trends are key indicators we assess in monitoring the credit quality and risk of our consumer banking loan portfolio.

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The table below displays the geographic profile of our consumer banking loan portfolio as of December 31, 2018 and 2017.

Table 4.5: Consumer Banking Risk Profile by Geographic Region

<i>(Dollars in millions)</i>	December 31, 2018		December 31, 2017	
	Amount	% of Total	Amount	% of Total
Auto:				
Texas	\$ 7,264	12.3%	\$ 7,040	9.4%
California	6,352	10.7	6,099	8.1
Florida	4,623	7.8	4,486	6.0
Georgia	2,665	4.5	2,726	3.6
Ohio	2,502	4.2	2,318	3.1
Louisiana	2,174	3.7	2,236	3.0
Illinois	2,171	3.7	2,181	2.9
Pennsylvania	2,167	3.7	2,014	2.7
Other	26,423	44.6	24,891	33.1
Total auto	56,341	95.2	53,991	71.9
Retail banking:				
New York	837	1.4	955	1.3
Louisiana	772	1.3	953	1.3
Texas	647	1.1	717	0.9
New Jersey	201	0.3	221	0.3
Maryland	161	0.3	187	0.2
Virginia	137	0.2	154	0.2
Other	109	0.2	267	0.4
Total retail banking	2,864	4.8	3,454	4.6
Total home loan	0	0.0	17,633	23.5
Total consumer banking	\$ 59,205	100.0%	\$ 75,078	100.0%

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The table below presents net charge-offs in our consumer banking loan portfolio for the years ended December 31, 2018, 2017 and 2016, as well as nonperforming loans as of December 31, 2018 and 2017.

Table 4.6: Consumer Banking Net Charge-Offs and Nonperforming Loans

<i>(Dollars in millions)</i>	Year Ended December 31,					
	2018		2017		2016	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Net charge-offs (recoveries):						
Auto	\$ 912	1.64 %	\$ 957	1.86%	\$ 752	1.69%
Home loan	(1)	(0.02)	15	0.08	14	0.06
Retail banking	70	2.26	66	1.92	54	1.53
Total consumer banking	\$ 981	1.51	\$ 1,038	1.39	\$ 820	1.15

<i>(Dollars in millions)</i>	December 31, 2018				December 31, 2017			
	Amount		Rate ⁽²⁾		Amount		Rate ⁽²⁾	
	Amount	Rate ⁽²⁾	Amount	Rate ⁽²⁾	Amount	Rate ⁽²⁾	Amount	Rate ⁽²⁾
Nonperforming loans:								
Auto	\$ 449	0.80%	\$ 376	0.70%				
Home loan	0	0.00	176	1.00				
Retail banking	30	1.04	35	1.00				
Total consumer banking	\$ 479	0.81	\$ 587	0.78				

⁽¹⁾ Net charge-off (recovery) rate is calculated by dividing net charge-offs (recoveries) by average loans held for investment for the period for each loan category.

⁽²⁾ Nonperforming loan rates are calculated based on nonperforming loans for each category divided by period-end total loans held for investment for each respective category.

Commercial Banking

We evaluate the credit risk of commercial loans using a risk rating system. We assign internal risk ratings to loans based on relevant information about the ability of the borrowers to repay their debt. In determining the risk rating of a particular loan, some of the factors considered are the borrower's current financial condition, historical and projected future credit performance, prospects for support from financially responsible guarantors, the estimated realizable value of any collateral and current economic trends. The scale based on our internal risk rating system is as follows:

- *Noncriticized:* Loans that have not been designated as criticized, frequently referred to as "pass" loans.
- *Criticized performing:* Loans in which the financial condition of the obligor is stressed, affecting earnings, cash flows or collateral values. The borrower currently has adequate capacity to meet near-term obligations; however, the stress, left unabated, may result in deterioration of the repayment prospects at some future date.
- *Criticized nonperforming:* Loans that are not adequately protected by the current net worth and paying capacity of the obligor or the collateral pledged, if any. Loans classified as criticized nonperforming have a well-defined weakness, or weaknesses, which jeopardize the full repayment of the debt. These loans are characterized by the distinct possibility that we will sustain a credit loss if the deficiencies are not corrected and are generally placed on nonaccrual status.

We use our internal risk rating system for regulatory reporting, determining the frequency of credit exposure reviews, and evaluating and determining the allowance for loan and lease losses for commercial loans. Generally, loans that are designated as criticized performing and criticized nonperforming are reviewed quarterly by management to determine if they are appropriately classified/rated and whether any impairment exists. Noncriticized loans are also generally reviewed, at least annually, to determine the appropriate risk rating. In addition, we evaluate the risk rating during the renewal process of any loan or if a loan becomes past due.

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The following table presents the geographic concentration and internal risk ratings of our commercial loan portfolio as of December 31, 2018 and 2017.

Table 4.7: Commercial Banking Risk Profile by Geographic Region and Internal Risk Rating

December 31, 2018								
<i>(Dollars in millions)</i>	Commercial and Multifamily Real Estate	% of Total	Commercial and Industrial	% of Total	Small-Ticket Commercial Real Estate	% of Total	Total Commercial Banking	% of Total
Geographic concentration:⁽¹⁾								
Northeast	\$ 15,562	53.8%	\$ 7,573	18.4%	\$ 213	62.1%	\$ 23,348	33.2%
Mid-Atlantic	3,410	11.8	4,710	11.5	12	3.5	8,132	11.6
South	4,247	14.7	15,367	37.4	20	5.8	19,634	27.9
Other	5,680	19.7	13,441	32.7	98	28.6	19,219	27.3
Total	\$ 28,899	100.0%	\$ 41,091	100.0%	\$ 343	100.0%	\$ 70,333	100.0%
Internal risk rating:⁽²⁾								
Noncriticized	\$ 28,239	97.7%	\$ 39,468	96.1%	\$ 336	98.0%	\$ 68,043	96.8%
Criticized performing	555	1.9	1,292	3.1	1	0.3	1,848	2.6
Criticized nonperforming	83	0.3	223	0.5	6	1.7	312	0.4
PCI loans	22	0.1	108	0.3	0	0.0	130	0.2
Total	\$ 28,899	100.0%	\$ 41,091	100.0%	\$ 343	100.0%	\$ 70,333	100.0%
December 31, 2017								
<i>(Dollars in millions)</i>	Commercial and Multifamily Real Estate	% of Total ⁽¹⁾	Commercial and Industrial	% of Total	Small-Ticket Commercial Real Estate	% of Total	Total Commercial Banking	% of Total
Geographic concentration:⁽¹⁾								
Northeast	\$ 14,969	57.3%	\$ 7,774	20.4%	\$ 250	62.4%	\$ 22,993	35.7%
Mid-Atlantic	2,675	10.2	3,922	10.3	15	3.8	6,612	10.2
South	3,719	14.2	14,739	38.8	22	5.5	18,480	28.6
Other	4,787	18.3	11,590	30.5	113	28.3	16,490	25.5
Total	\$ 26,150	100.0%	\$ 38,025	100.0%	\$ 400	100.0%	\$ 64,575	100.0%
Internal risk rating:⁽²⁾								
Noncriticized	\$ 25,609	98.0%	\$ 35,161	92.5%	\$ 392	97.9%	\$ 61,162	94.7%
Criticized performing	478	1.8	2,170	5.7	1	0.3	2,649	4.1
Criticized nonperforming	38	0.1	239	0.6	7	1.8	284	0.4
PCI loans	25	0.1	455	1.2	0	0.0	480	0.8
Total	\$ 26,150	100.0%	\$ 38,025	100.0%	\$ 400	100.0%	\$ 64,575	100.0%

⁽¹⁾ Geographic concentration is generally determined by the location of the borrower's business or the location of the collateral associated with the loan. Northeast consists of CT, MA, ME, NH, NJ, NY, PA and VT. Mid-Atlantic consists of DC, DE, MD, VA and WV. South consists of AL, AR, FL, GA, KY, LA, MO, MS, NC, SC, TN and TX.

⁽²⁾ Criticized exposures correspond to the "Special Mention," "Substandard" and "Doubtful" asset categories defined by bank regulatory authorities.

Impaired Loans

The following table presents information on our impaired loans as of December 31, 2018 and 2017, and for the years ended December 31, 2018, 2017 and 2016. Impaired loans include loans modified in troubled debt restructurings ("TDRs"), all nonperforming commercial loans and nonperforming home loans with a specific impairment. Impaired loans without an allowance generally represent loans that have been charged down to the fair value of the underlying collateral for which we believe no additional losses have been incurred, or where the fair value of the underlying collateral meets or exceeds the loan's amortized cost. PCI loans are excluded from the following tables.

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Table 4.8: Impaired Loans

<i>(Dollars in millions)</i>	December 31, 2018					
	With an Allowance	Without an Allowance	Total Recorded Investment	Related Allowance	Net Recorded Investment	Unpaid Principal Balance
Credit Card:						
Domestic credit card	\$ 666	\$ 0	\$ 666	\$ 186	\$ 480	\$ 654
International card businesses	189	0	189	91	98	183
Total credit card ⁽¹⁾	855	0	855	277	578	837
Consumer Banking:						
Auto ⁽²⁾	301	38	339	22	317	420
Retail banking	42	12	54	5	49	60
Total consumer banking	343	50	393	27	366	480
Commercial Banking:						
Commercial and multifamily real estate	92	28	120	5	115	121
Commercial and industrial	301	169	470	29	441	593
Total commercial lending	393	197	590	34	556	714
Small-ticket commercial real estate	0	6	6	0	6	9
Total commercial banking	393	203	596	34	562	723
Total	<u>\$ 1,591</u>	<u>\$ 253</u>	<u>\$ 1,844</u>	<u>\$ 338</u>	<u>\$ 1,506</u>	<u>\$ 2,040</u>

<i>(Dollars in millions)</i>	December 31, 2017					
	With an Allowance	Without an Allowance	Total Recorded Investment	Related Allowance	Net Recorded Investment	Unpaid Principal Balance
Credit Card:						
Domestic credit card	\$ 639	\$ 0	\$ 639	\$ 208	\$ 431	\$ 625
International card businesses	173	0	173	84	89	167
Total credit card ⁽¹⁾	812	0	812	292	520	792
Consumer Banking:						
Auto ⁽²⁾	363	118	481	30	451	730
Home loan	192	41	233	15	218	298
Retail banking	51	10	61	8	53	66
Total consumer banking	606	169	775	53	722	1,094
Commercial Banking:						
Commercial and multifamily real estate	138	2	140	13	127	143
Commercial and industrial	489	222	711	63	648	844
Total commercial lending	627	224	851	76	775	987
Small-ticket commercial real estate	7	0	7	0	7	9
Total commercial banking	634	224	858	76	782	996
Total	<u>\$ 2,052</u>	<u>\$ 393</u>	<u>\$ 2,445</u>	<u>\$ 421</u>	<u>\$ 2,024</u>	<u>\$ 2,882</u>

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	Year Ended December 31,					
	2018		2017		2016	
	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized
<i>(Dollars in millions)</i>						
Credit Card:						
Domestic credit card	\$ 655	\$ 63	\$ 602	\$ 63	\$ 540	\$ 58
International card businesses	184	12	154	11	133	10
Total credit card ⁽¹⁾	<u>839</u>	<u>75</u>	<u>756</u>	<u>74</u>	<u>673</u>	<u>68</u>
Consumer Banking:						
Auto ⁽²⁾	397	45	495	53	501	86
Home loan	91	1	299	5	361	5
Retail banking	59	2	59	1	62	2
Total consumer banking	<u>547</u>	<u>48</u>	<u>853</u>	<u>59</u>	<u>924</u>	<u>93</u>
Commercial Banking:						
Commercial and multifamily real estate	93	2	134	4	111	3
Commercial and industrial	621	20	1,118	18	1,215	13
Total commercial lending	<u>714</u>	<u>22</u>	<u>1,252</u>	<u>22</u>	<u>1,326</u>	<u>16</u>
Small-ticket commercial real estate	5	0	7	0	7	0
Total commercial banking	<u>719</u>	<u>22</u>	<u>1,259</u>	<u>22</u>	<u>1,333</u>	<u>16</u>
Total	<u>\$ 2,105</u>	<u>\$ 145</u>	<u>\$ 2,868</u>	<u>\$ 155</u>	<u>\$ 2,930</u>	<u>\$ 177</u>

⁽¹⁾ The period-end and average recorded investments of credit card loans include finance charges and fees.

⁽²⁾ Includes certain TDRs that are recorded as other assets on our consolidated balance sheets.

Troubled Debt Restructurings

Total recorded TDRs were \$1.6 billion and \$2.2 billion as of December 31, 2018 and 2017, respectively. TDRs classified as performing in our credit card and consumer banking loan portfolios totaled \$1.2 billion and \$1.3 billion as of December 31, 2018 and 2017, respectively. TDRs classified as performing in our commercial banking loan portfolio totaled \$282 million and \$574 million as of December 31, 2018 and 2017, respectively. Commitments to lend additional funds on loans modified in TDRs totaled \$256 million and \$241 million as of December 31, 2018 and 2017, respectively.

Loans Modified in TDRs

As part of our loan modification programs to borrowers experiencing financial difficulty, we may provide multiple concessions to minimize our economic loss and improve long-term loan performance and collectability. The following tables present the major modification types, recorded investment amounts and financial effects of loans modified in TDRs during the years ended December 31, 2018, 2017 and 2016.

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Table 4.9: Troubled Debt Restructurings

<i>(Dollars in millions)</i>	Year Ended December 31, 2018						
	Total Loans Modified ⁽¹⁾	Reduced Interest Rate		Term Extension		Balance Reduction	
		% of TDR Activity ⁽²⁾	Average Rate Reduction	% of TDR Activity ⁽²⁾	Average Term Extension (Months)	% of TDR Activity ⁽²⁾	Gross Balance Reduction
Credit Card:							
Domestic credit card	\$ 412	100%	15.93%	0%	0	0%	\$ 0
International card businesses	184	100	26.96	0	0	0	0
Total credit card	<u>596</u>	<u>100</u>	<u>19.34</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Consumer Banking:							
Auto ⁽³⁾	227	49	3.88	89	8	1	1
Home loan	6	28	1.78	83	214	0	0
Retail banking	8	16	10.92	43	12	0	0
Total consumer banking	<u>241</u>	<u>48</u>	<u>3.93</u>	<u>87</u>	<u>13</u>	<u>1</u>	<u>1</u>
Commercial Banking:							
Commercial and multifamily real estate	43	0	0.00	80	5	0	0
Commercial and industrial	170	0	1.03	54	13	0	0
Total commercial lending	<u>213</u>	<u>0</u>	<u>1.03</u>	<u>60</u>	<u>11</u>	<u>0</u>	<u>0</u>
Small-ticket commercial real estate	3	0	0.00	0	0	0	0
Total commercial banking	<u>216</u>	<u>0</u>	<u>1.03</u>	<u>59</u>	<u>11</u>	<u>0</u>	<u>0</u>
Total	<u>\$ 1,053</u>	<u>68</u>	<u>16.84</u>	<u>32</u>	<u>12</u>	<u>0</u>	<u>\$ 1</u>
Year Ended December 31, 2017							
<i>(Dollars in millions)</i>	Total Loans Modified ⁽¹⁾	Reduced Interest Rate		Term Extension		Balance Reduction	
		% of TDR Activity ⁽²⁾	Average Rate Reduction	% of TDR Activity ⁽²⁾	Average Term Extension (Months)	% of TDR Activity ⁽²⁾	Gross Balance Reduction
	Credit Card:						
Domestic credit card	\$ 406	100%	14.50%	0%	0	0%	\$ 0
International card businesses	169	100	26.51	0	0	0	0
Total credit card	<u>575</u>	<u>100</u>	<u>18.02</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Consumer Banking:							
Auto ⁽³⁾	324	44	3.82	95	6	2	7
Home loan	19	48	2.77	78	233	2	0
Retail banking	13	22	5.77	73	10	0	0
Total consumer banking	<u>356</u>	<u>44</u>	<u>3.79</u>	<u>93</u>	<u>16</u>	<u>2</u>	<u>7</u>
Commercial Banking:							
Commercial and multifamily real estate	29	7	0.02	26	5	0	0
Commercial and industrial	557	19	0.80	59	17	0	0
Total commercial lending	<u>586</u>	<u>18</u>	<u>0.79</u>	<u>57</u>	<u>16</u>	<u>0</u>	<u>0</u>
Small-ticket commercial real estate	3	0	0.00	4	0	0	0
Total commercial banking	<u>589</u>	<u>18</u>	<u>0.79</u>	<u>57</u>	<u>16</u>	<u>0</u>	<u>0</u>
Total	<u>\$ 1,520</u>	<u>55</u>	<u>13.19</u>	<u>44</u>	<u>16</u>	<u>0</u>	<u>\$ 7</u>

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<i>(Dollars in millions)</i>	Year Ended December 31, 2016						
	Total Loans Modified ⁽¹⁾	Reduced Interest Rate		Term Extension		Balance Reduction	
		% of TDR Activity ⁽²⁾	Average Rate Reduction	% of TDR Activity ⁽²⁾	Average Term Extension (Months)	% of TDR Activity ⁽²⁾	Gross Balance Reduction
Credit Card:							
Domestic credit card	\$ 312	100%	13.19%	0%	0	0%	\$ 0
International card businesses	138	100	25.87	0	0	0	0
Total credit card	<u>450</u>	<u>100</u>	<u>17.09</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Consumer Banking:							
Auto ⁽³⁾	356	44	3.91	74	7	25	78
Home loan	48	64	2.25	87	243	2	0
Retail banking	18	23	7.89	68	10	9	1
Total consumer banking	<u>422</u>	<u>46</u>	<u>3.73</u>	<u>75</u>	<u>38</u>	<u>22</u>	<u>79</u>
Commercial Banking:							
Commercial and multifamily real estate	38	0	0.00	67	6	32	3
Commercial and industrial	743	5	0.09	57	20	7	26
Total commercial lending	<u>781</u>	<u>4</u>	<u>0.09</u>	<u>57</u>	<u>19</u>	<u>8</u>	<u>29</u>
Small-ticket commercial real estate	1	0	0.00	0	0	0	0
Total commercial banking	<u>782</u>	<u>4</u>	<u>0.09</u>	<u>57</u>	<u>19</u>	<u>8</u>	<u>29</u>
Total	<u>\$ 1,654</u>	<u>41</u>	<u>12.42</u>	<u>46</u>	<u>27</u>	<u>9</u>	<u>\$ 108</u>

⁽¹⁾ Represents the recorded investment of total loans modified in TDRs at the end of the quarter in which they were modified. As not every modification type is included in the table above, the total percentage of TDR activity may not add up to 100%. Some loans may receive more than one type of concession as part of the modification.

⁽²⁾ Due to multiple concessions granted to some troubled borrowers, percentages may total more than 100% for certain loan types.

⁽³⁾ Includes certain TDRs that are recorded as other assets on our consolidated balance sheets.

Subsequent Defaults of Completed TDR Modifications

The following table presents the type, number and recorded investment of loans modified in TDRs that experienced a default during the period and had completed a modification event in the twelve months prior to the default. A default occurs if the loan is either 90 days or more delinquent, has been charged off as of the end of the period presented or has been reclassified from accrual to nonaccrual status.

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Table 4.10: TDR—Subsequent Defaults

	Year Ended December 31,					
	2018		2017		2016	
	Number of Contracts	Amount	Number of Contracts	Amount	Number of Contracts	Amount
<i>(Dollars in millions)</i>						
Credit Card:						
Domestic credit card	61,070	\$ 126	55,121	\$ 111	42,250	\$ 73
International card businesses	61,014	106	51,641	93	40,498	82
Total credit card	<u>122,084</u>	<u>232</u>	<u>106,762</u>	<u>204</u>	<u>82,748</u>	<u>155</u>
Consumer Banking:						
Auto	6,980	79	9,446	109	8,587	96
Home loan	3	1	28	7	56	7
Retail banking	26	2	41	4	48	9
Total consumer banking	<u>7,009</u>	<u>82</u>	<u>9,515</u>	<u>120</u>	<u>8,691</u>	<u>112</u>
Commercial Banking:						
Commercial and multifamily real estate	1	3	0	0	1	1
Commercial and industrial	26	120	244	269	150	281
Total commercial lending	<u>27</u>	<u>123</u>	<u>244</u>	<u>269</u>	<u>151</u>	<u>282</u>
Small-ticket commercial real estate	0	0	2	1	7	1
Total commercial banking	<u>27</u>	<u>123</u>	<u>246</u>	<u>270</u>	<u>158</u>	<u>283</u>
Total	<u>129,120</u>	<u>\$ 437</u>	<u>116,523</u>	<u>\$ 594</u>	<u>91,597</u>	<u>\$ 550</u>

Finance Charge and Fee Reserve

We continue to accrue finance charges and fees on credit card loans until the account is charged off. Our methodology for estimating the uncollectible portion of billed finance charges and fees is consistent with the methodology we use to estimate the allowance for incurred principal losses on our credit card loan receivables. Total net revenue was reduced by \$1.3 billion, \$1.4 billion and \$1.1 billion in 2018, 2017 and 2016, respectively, for the estimated uncollectible amount of billed finance charges and fees and related losses. The finance charge and fee reserve, which is recorded as a contra asset on our consolidated balance sheets, totaled \$468 million and \$491 million as of December 31, 2018 and 2017, respectively.

Loans Held for Sale

Our total loans held for sale was \$1.2 billion and \$971 million as of December 31, 2018 and 2017, respectively. We originated for sale \$8.7 billion of commercial multifamily real estate loans in 2018, \$8.4 billion and \$7.6 billion of conforming residential mortgage loans and commercial multifamily real estate loans in 2017 and 2016, respectively. We retained servicing on approximately 100% of multifamily real estate loans. In 2018, we sold mortgage servicing rights related to loans serviced for others.

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NOTE 5—ALLOWANCE FOR LOAN AND LEASE LOSSES AND RESERVE FOR UNFUNDED LENDING COMMITMENTS

Our allowance for loan and lease losses represents management's best estimate of incurred loan and lease losses inherent in our loans held for investment portfolio as of each balance sheet date. In addition to the allowance for loan and lease losses, we also estimate probable losses related to unfunded lending commitments, such as letters of credit, financial guarantees and binding unfunded loan commitments. The provision for losses on unfunded lending commitments is included in the provision for credit losses in our consolidated statements of income and the related reserve for unfunded lending commitments is included in other liabilities on our consolidated balance sheets. See "Note 1—Summary of Significant Accounting Policies" for further discussion of our methodology and policy for determining the allowance for loan and lease losses for each of our loan portfolio segments, as well as information on our reserve for unfunded lending commitments.

Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments Activity

The table below summarizes changes in the allowance for loan and lease losses and reserve for unfunded lending commitments by portfolio segment for the years ended December 31, 2018, 2017 and 2016.

Table 5.1: Allowance for Loan and Lease Losses and Reserve for Unfunded Lending Commitments Activity

<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking	Other ⁽¹⁾⁽²⁾	Total
Allowance for loan and lease losses:					
Balance as of December 31, 2015	\$ 3,654	\$ 868	\$ 604	\$ 4	\$ 5,130
Charge-offs	(5,019)	(1,226)	(307)	(3)	(6,555)
Recoveries ⁽³⁾	1,066	406	15	6	1,493
Net charge-offs	(3,953)	(820)	(292)	3	(5,062)
Provision (benefit) for loan and lease losses	4,926	1,055	515	(5)	6,491
Allowance build (release) for loan and lease losses	973	235	223	(2)	1,429
Other changes ⁽⁴⁾	(21)	(1)	(34)	0	(56)
Balance as of December 31, 2016	4,606	1,102	793	2	6,503
Reserve for unfunded lending commitments:					
Balance as of December 31, 2015	0	7	161	0	168
Benefit for losses on unfunded lending commitments	0	0	(32)	0	(32)
Balance as of December 31, 2016	0	7	129	0	136
Combined allowance and reserve as of December 31, 2016	\$ 4,606	\$ 1,109	\$ 922	\$ 2	\$ 6,639
Allowance for loan and lease losses:					
Balance as of December 31, 2016	\$ 4,606	\$ 1,102	\$ 793	\$ 2	\$ 6,503
Charge-offs	(6,321)	(1,677)	(481)	(34)	(8,513)
Recoveries ⁽³⁾	1,267	639	16	29	1,951
Net charge-offs	(5,054)	(1,038)	(465)	(5)	(6,562)
Provision for loan and lease losses	6,066	1,180	313	4	7,563
Allowance build (release) for loan and lease losses	1,012	142	(152)	(1)	1,001
Other changes ⁽⁴⁾	30	(2)	(30)	0	(2)
Balance as of December 31, 2017	5,648	1,242	611	1	7,502
Reserve for unfunded lending commitments:					
Balance as of December 31, 2016	0	7	129	0	136
Benefit for losses on unfunded lending commitments	0	0	(12)	0	(12)
Balance as of December 31, 2017	0	7	117	0	124
Combined allowance and reserve as of December 31, 2017	\$ 5,648	\$ 1,249	\$ 728	\$ 1	\$ 7,626

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<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking	Other ⁽¹⁾⁽²⁾	Total
Allowance for loan and lease losses:					
Balance as of December 31, 2017	\$ 5,648	\$ 1,242	\$ 611	\$ 1	\$ 7,502
Charge-offs	(6,657)	(1,832)	(119)	(7)	(8,615)
Recoveries ⁽³⁾	1,588	851	63	1	2,503
Net charge-offs	(5,069)	(981)	(56)	(6)	(6,112)
Provision (benefit) for loan and lease losses	4,984	841	82	(49)	5,858
Allowance build (release) for loan and lease losses	(85)	(140)	26	(55)	(254)
Other changes ⁽¹⁾⁽⁴⁾	(28)	(54)	0	54	(28)
Balance as of December 31, 2018	5,535	1,048	637	0	7,220
Reserve for unfunded lending commitments:					
Balance as of December 31, 2017	0	7	117	0	124
Provision (benefit) for losses on unfunded lending commitments	0	(3)	1	0	(2)
Balance as of December 31, 2018	0	4	118	0	122
Combined allowance and reserve as of December 31, 2018	\$ 5,535	\$ 1,052	\$ 755	\$ 0	\$ 7,342

⁽¹⁾ In 2018, we sold all of our consumer home loan portfolio and recognized a gain of approximately \$499 million in the Other category, including a benefit for credit losses of \$46 million.

⁽²⁾ Includes the legacy loan portfolio of our discontinued GreenPoint mortgage operations.

⁽³⁾ The amount and timing of recoveries is impacted by our collection strategies, which are based on customer behavior and risk profile and include direct customer communications, repossession of collateral, the periodic sale of charged-off loans as well as additional strategies, such as litigation.

⁽⁴⁾ Represents foreign currency translation adjustments and the net impact of loan transfers and sales where applicable.

Components of Allowance for Loan and Lease Losses by Impairment Methodology

The table below presents the components of our allowance for loan and lease losses by portfolio segment and impairment methodology as of December 31, 2018 and 2017. See "Note 1—Summary of Significant Accounting Policies" for further discussion of allowance methodologies for each of the loan portfolios.

Table 5.2: Components of Allowance for Loan and Lease Losses by Impairment Methodology

<i>(Dollars in millions)</i>	December 31, 2018			
	Credit Card	Consumer Banking	Commercial Banking	Total
Allowance for loan and lease losses:				
Collectively evaluated	\$ 5,258	\$ 1,021	\$ 603	\$ 6,882
Asset-specific	277	27	34	338
Total allowance for loan and lease losses	\$ 5,535	\$ 1,048	\$ 637	\$ 7,220
Loans held for investment:				
Collectively evaluated	\$ 115,505	\$ 58,808	\$ 69,607	\$ 243,920
Asset-specific	855	393	596	1,844
PCI loans	1	4	130	135
Total loans held for investment	\$ 116,361	\$ 59,205	\$ 70,333	\$ 245,899
Allowance coverage ratio ⁽¹⁾	4.76%	1.77%	0.91%	2.94%

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<i>(Dollars in millions)</i>	December 31, 2017				
	Credit Card	Consumer Banking	Commercial Banking	Other	Total
Allowance for loan and lease losses:					
Collectively evaluated	\$ 5,356	\$ 1,158	\$ 529	\$ 1	\$ 7,044
Asset-specific	292	53	76	0	421
PCI loans	0	31	6	0	37
Total allowance for loan and lease losses	<u>\$ 5,648</u>	<u>\$ 1,242</u>	<u>\$ 611</u>	<u>\$ 1</u>	<u>\$ 7,502</u>
Loans held for investment:					
Collectively evaluated	\$ 113,948	\$ 64,080	\$ 63,237	\$ 58	\$ 241,323
Asset-specific	812	705	858	0	2,375
PCI loans	2	10,293	480	0	10,775
Total loans held for investment	<u>\$ 114,762</u>	<u>\$ 75,078</u>	<u>\$ 64,575</u>	<u>\$ 58</u>	<u>\$ 254,473</u>
Allowance coverage ratio ⁽¹⁾	4.92%	1.65%	0.95%	1.72%	2.95%

⁽¹⁾ Allowance coverage ratio is calculated by dividing the period-end allowance for loan and lease losses by period-end loans held for investment within the specified loan category.

We have certain credit card partnership agreements that are presented within our consolidated financial statements on a net basis, in which our partner agrees to share a portion of the credit losses on the underlying loan portfolio. The expected reimbursements from these partners, which are netted against our allowance for loan and lease losses, result in reductions to net charge-offs and provision for credit losses. See "Note 1—Summary of Significant Accounting Policies" for further discussion of our credit card partnership agreements.

The table below summarizes the changes in the estimated reimbursements from these partners for the years ended December 31, 2018, 2017 and 2016.

Table 5.3: Summary of Loss Sharing Arrangements Impacts

<i>(Dollars in millions)</i>	Estimated Reimbursements from Loss Sharing Partners
Balance as of December 31, 2015	\$ 194
Amounts due from partners which reduced net charge-offs	(229)
Amounts estimated to be charged to partners which reduced provision for credit losses	263
Balance as of December 31, 2016	228
Amounts due from partners which reduced net charge-offs	(285)
Amounts estimated to be charged to partners which reduced provision for credit losses	437
Balance as of December 31, 2017	380
Amounts due from partners which reduced net charge-offs	(382)
Amounts estimated to be charged to partners which reduced provision for credit losses	381
Balance as of December 31, 2018	<u>\$ 379</u>

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NOTE 6—VARIABLE INTEREST ENTITIES AND SECURITIZATIONS

In the normal course of business, we enter into various types of transactions with entities that are considered to be VIEs. Our primary involvement with VIEs has been related to our securitization transactions in which we transferred assets to securitization trusts. We have primarily securitized credit card loans, which have provided a source of funding for us and enabled us to transfer a certain portion of the economic risk of the loans or related debt securities to third parties.

The entity that has a controlling financial interest in a VIE is referred to as the primary beneficiary and is required to consolidate the VIE. The majority of the VIEs in which we are involved have been consolidated in our financial statements.

Summary of Consolidated and Unconsolidated VIEs

The assets of our consolidated VIEs primarily consist of cash, credit card loan receivables and the related allowance for loan and lease losses, which we report on our consolidated balance sheets under restricted cash for securitization investors, loans held in consolidated trusts and allowance for loan and lease losses, respectively. The assets of a particular VIE are the primary source of funds to settle its obligations. Creditors of these VIEs typically do not have recourse to our general credit. Liabilities primarily consist of debt securities issued by the VIEs, which we report under securitized debt obligations on our consolidated balance sheets. For unconsolidated VIEs, we present the carrying amount of assets and liabilities reflected on our consolidated balance sheets and our maximum exposure to loss. Our maximum exposure to loss is estimated based on the unlikely event that all of the assets in the VIEs become worthless and we are required to meet our maximum remaining funding obligations.

The tables below present a summary of VIEs in which we had continuing involvement or held a variable interest, aggregated based on VIEs with similar characteristics as of December 31, 2018 and 2017. We separately present information for consolidated and unconsolidated VIEs.

Table 6.1: Carrying Amount of Consolidated and Unconsolidated VIEs

	December 31, 2018				
	Consolidated		Unconsolidated		
	Carrying Amount of Assets	Carrying Amount of Liabilities	Carrying Amount of Assets	Carrying Amount of Liabilities	Maximum Exposure to Loss
<i>(Dollars in millions)</i>					
Securitization-Related VIEs:					
Credit card loan securitizations ⁽¹⁾	\$ 33,574	\$ 18,885	\$ 0	\$ 0	\$ 0
Home loan securitizations	0	0	211	74	554
Total securitization-related VIEs	33,574	18,885	211	74	554
Other VIEs:⁽²⁾					
Affordable housing entities	243	17	4,238	1,303	4,238
Entities that provide capital to low-income and rural communities	1,739	117	0	0	0
Other	0	0	353	0	353
Total other VIEs	1,982	134	4,591	1,303	4,591
Total VIEs	\$ 35,556	\$ 19,019	\$ 4,802	\$ 1,377	\$ 5,145

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December 31, 2017

	Consolidated		Unconsolidated		Maximum Exposure to Loss
	Carrying Amount of Assets	Carrying Amount of Liabilities	Carrying Amount of Assets	Carrying Amount of Liabilities	
<i>(Dollars in millions)</i>					
Securitization-Related VIEs:					
Credit card loan securitizations ⁽¹⁾	\$ 34,976	\$ 20,651	\$ 0	\$ 0	\$ 0
Home loan securitizations	0	0	455	390	1,057
Total securitization-related VIEs	34,976	20,651	455	390	1,057
Other VIEs:⁽²⁾					
Affordable housing entities	226	10	4,175	1,284	4,175
Entities that provide capital to low-income and rural communities	1,498	129	0	0	0
Other	0	0	318	0	318
Total other VIEs	1,724	139	4,493	1,284	4,493
Total VIEs	\$ 36,700	\$ 20,790	\$ 4,948	\$ 1,674	\$ 5,550

⁽¹⁾ Represents the carrying amount of assets and liabilities owned by the VIE, which includes the seller's interest and repurchased notes held by other related parties.

⁽²⁾ In certain investment structures, we consolidate a VIE which in turn holds as its primary asset an investment in an unconsolidated VIE. In these instances, we disclose the carrying amount of assets and liabilities on our consolidated balance sheets as unconsolidated VIEs to avoid duplicating our exposure, as the unconsolidated VIEs are generally the operating entities generating the exposure. The carrying amount of assets and liabilities included in the unconsolidated VIE columns above related to these investment structures were \$2.3 billion of assets and \$811 million of liabilities as of December 31, 2018 and \$2.2 billion of assets and \$901 million of liabilities as of December 31, 2017.

Securitization-Related VIEs

In a securitization transaction, assets are transferred to a trust, which generally meets the definition of a VIE. Our primary securitization activity is in the form of credit card securitizations, conducted through securitization trusts which we consolidate. Our continuing involvement in these securitization transactions mainly consists of acting as the primary servicer and holding certain retained interests.

We transfer multifamily commercial loans that we originate to the government-sponsored enterprises ("GSEs") and retain the right to service the transferred loans pursuant to the guidelines set forth by the GSEs. Subsequent to such transfers, these loans are commonly securitized into CMBS by the GSEs. We also hold RMBS and CMBS in our investment securities portfolio, which represent an interest in the respective securitization trusts employed in the transactions under which those securities were issued. We do not consolidate the securitization trusts employed in these transactions as we do not have the power to direct the activities that most significantly impact the economic performance of these securitization trusts. Our maximum exposure to loss as a result of our involvement with these VIEs is the carrying value of MSRs and investment securities on our consolidated balance sheets. See "Note 7—Goodwill and Intangible Assets" for information related to our MSRs associated with these multifamily commercial loan securitizations and "Note 3—Investment Securities" for more information on the securities held in our investment securities portfolio. We exclude these VIEs from the tables within this note because we do not consider our continuing involvement with these VIEs to be significant as we either invest in securities issued by the VIE and were not involved in the design of the VIE or no transfers have occurred between the VIE and us. In addition, where we have certain lending arrangements in the normal course of business with entities that could be VIEs, we have also excluded these VIEs from the tables presented in this note. See "Note 4—Loans" for additional information regarding our lending arrangements in the normal course of business.

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The table below presents our continuing involvement in certain securitization-related VIEs as of December 31, 2018 and 2017.

Table 6.2: Continuing Involvement in Securitization-Related VIEs

<i>(Dollars in millions)</i>	Credit Card	Mortgages
December 31, 2018:		
Securities held by third-party investors	\$ 18,307	\$ 1,276
Receivables in the trust	34,197	1,305
Cash balance of spread or reserve accounts	0	116
Retained interests	Yes	Yes
Servicing retained	Yes	Yes ⁽¹⁾
December 31, 2017:		
Securities held by third-party investors	\$ 20,010	\$ 1,774
Receivables in the trust	35,667	1,812
Cash balance of spread or reserve accounts	0	124
Retained interests	Yes	Yes
Servicing retained	Yes	Yes ⁽¹⁾

⁽¹⁾ We retain servicing on a portion of our remaining mortgage loans in mortgage securitizations.

Credit Card Securitizations

We securitize a portion of our credit card loans which provides a source of funding for us. The credit card securitizations involve the transfer of credit card receivables from our balance sheet to securitization trusts. These trusts then issue debt securities collateralized by the transferred receivables to third-party investors. We hold certain retained interests in our credit card securitizations and continue to service the receivables in these trusts. We consolidate these trusts because we are deemed to be the primary beneficiary as we have the power to direct the activities that most significantly impact the economic performance of the trusts, and the right to receive benefits or the obligation to absorb losses that could potentially be significant to the trusts.

Mortgage Securitizations

We had previously securitized mortgage loans by transferring these loans to securitization trusts that had issued mortgage-backed securities to investors. These mortgage trusts consist of option-adjustable rate mortgage ("option-ARM") securitizations and securitizations from our discontinued operations which include the mortgage origination operations of our wholesale mortgage banking unit, GreenPoint Mortgage Funding, Inc. ("GreenPoint") and the manufactured housing operations of GreenPoint Credit, LLC, a subsidiary of GreenPoint (collectively "GreenPoint securitizations").

We continue to service a portion of the remaining mortgage loans in the option-ARM securitizations and also retain rights to certain future cash flows arising from these securitizations. We also retain servicing on a portion of the remaining mortgage loans in the GreenPoint securitizations and have the right to receive any funds remaining in the pre-funded letters of credit after the securities are released. We do not consolidate the mortgage securitizations because we do not have the right to receive the benefits nor the obligation to absorb losses that could potentially be significant to the trusts or we do not have the power to direct the activities that most significantly impact the economic performance of the trusts.

Other VIEs

Affordable Housing Entities

As part of our community reinvestment initiatives, we invest in private investment funds that make equity investments in multifamily affordable housing properties. We receive affordable housing tax credits for these investments. The activities of these entities are financed with a combination of invested equity capital and debt. We account for certain of our investments in qualified affordable housing projects using the proportional amortization method if certain criteria are met. The proportional amortization method amortizes the cost of the investment over the period in which the investor expects to receive tax credits and other tax benefits, and

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the resulting amortization is recognized as a component of income tax expense attributable to continuing operations. For the years ended December 31, 2018 and 2017, we recognized amortization of \$477 million and \$582 million, respectively, and tax credits of \$529 million and \$504 million, respectively, associated with these investments within income tax provision. The carrying value of our equity investments in these qualified affordable housing projects was \$4.2 billion and \$3.9 billion as of December 31, 2018 and 2017, respectively. We are periodically required to provide additional financial or other support during the period of the investments. Our liability for these unfunded commitments was \$1.5 billion and \$1.4 billion as of December 31, 2018 and 2017, respectively and is largely expected to be paid from 2019 to 2021.

For those investment funds considered to be VIEs, we are not required to consolidate them if we do not have the power to direct the activities that most significantly impact the economic performance of those entities. We record our interests in these unconsolidated VIEs in loans held for investment, other assets and other liabilities on our consolidated balance sheets. Our maximum exposure to these entities is limited to our variable interests in the entities which consisted of assets of approximately \$4.2 billion as of both December 31, 2018 and 2017. The creditors of the VIEs have no recourse to our general credit and we do not provide additional financial or other support other than during the period that we are contractually required to provide it. The total assets of the unconsolidated VIE investment funds were approximately \$10.8 billion and \$11.5 billion as of December 31, 2018 and 2017, respectively.

Entities that Provide Capital to Low-Income and Rural Communities

We hold variable interests in entities (“Investor Entities”) that invest in community development entities (“CDEs”) that provide debt financing to businesses and non-profit entities in low-income and rural communities. Variable interests in the CDEs held by the consolidated Investor Entities are also our variable interests. The activities of the Investor Entities are financed with a combination of invested equity capital and debt. The activities of the CDEs are financed solely with invested equity capital. We receive federal and state tax credits for these investments. We consolidate the VIEs in which we have the power to direct the activities that most significantly impact the VIE’s economic performance and where we have the obligation to absorb losses or right to receive benefits that could be potentially significant to the VIE. We have also consolidated other investments and CDEs that are not considered to be VIEs, but where we hold a controlling financial interest. The assets of the VIEs that we consolidated, which totaled approximately \$1.7 billion and \$1.5 billion as of December 31, 2018 and 2017, respectively, are reflected on our consolidated balance sheets in cash, loans held for investment, and other assets. The liabilities are reflected in other liabilities. The creditors of the VIEs have no recourse to our general credit. We have not provided additional financial or other support other than during the period that we are contractually required to provide it.

Other

Other VIEs include variable interests that we hold in companies that promote renewable energy sources and other equity method investments. We were not required to consolidate these entities because we do not have the power to direct the activities that most significantly impact their economic performance. Our maximum exposure to these entities is limited to the investment on our consolidated balance sheets of \$353 million and \$318 million as of December 31, 2018 and 2017, respectively. The creditors of the other VIEs have no recourse to our general credit. We have not provided additional financial or other support other than during the period that we are contractually required to provide it.

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NOTE 7—GOODWILL AND INTANGIBLE ASSETS

The table below presents our goodwill, intangible assets and MSRs as of December 31, 2018 and 2017. Goodwill is presented separately, while intangible assets and MSRs are included in other assets on our consolidated balance sheets.

Table 7.1: Components of Goodwill, Intangible Assets and MSRs

	December 31, 2018			
	Carrying Amount of Assets	Accumulated Amortization	Net Carrying Amount	Remaining Amortization Period
<i>(Dollars in millions)</i>				
Goodwill	\$ 14,544	N/A	\$ 14,544	N/A
Intangible assets:				
Purchased credit card relationship ("PCCR") intangibles	2,102	\$ (1,952)	150	3.7 years
Core deposit intangibles	1,149	(1,148)	1	0.2 years
Other ⁽¹⁾	271	(168)	103	7.1 years
Total intangible assets	3,522	(3,268)	254	5.0 years
Total goodwill and intangible assets	\$ 18,066	\$ (3,268)	\$ 14,798	
Commercial MSRs ⁽²⁾	\$ 459	\$ (185)	\$ 274	
	December 31, 2017			
	Carrying Amount of Assets	Accumulated Amortization	Net Carrying Amount	Remaining Amortization Period
<i>(Dollars in millions)</i>				
Goodwill	\$ 14,533	N/A	\$ 14,533	N/A
Intangible assets:				
PCCR intangibles	2,105	\$ (1,844)	261	3.6 years
Core deposit intangibles	1,149	(1,133)	16	1.0 years
Other ⁽¹⁾	300	(156)	144	7.8 years
Total intangible assets	3,554	(3,133)	421	4.9 years
Total goodwill and intangible assets	\$ 18,087	\$ (3,133)	\$ 14,954	
MSRs:				
Consumer MSRs ⁽³⁾	\$ 92	N/A	\$ 92	
Commercial MSRs ⁽²⁾	355	\$ (126)	229	
Total MSRs	\$ 447	\$ (126)	\$ 321	

⁽¹⁾ Primarily consists of intangibles for sponsorship relationships, partnership and other contract intangibles and trade name intangibles.

⁽²⁾ Commercial MSRs are accounted for under the amortization method on our consolidated balance sheets. We recorded \$59 million and \$44 million of amortization expense for the years ended December 31, 2018 and 2017, respectively.

⁽³⁾ Consumer MSRs were carried at fair value on our consolidated balance sheets as of December 31, 2017. In the first quarter of 2018, we sold the substantial majority of these MSRs.

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Goodwill

The following table presents changes in the carrying amount of goodwill by each of our business segments as of December 31, 2018 and 2017. We did not recognize any goodwill impairment during 2018, 2017 or 2016.

Table 7.2: Goodwill by Business Segments

<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking	Total
Balance as of December 31, 2015	\$ 4,997	\$ 4,600	\$ 4,883	\$ 14,480
Acquisitions	36	0	18	54
Other adjustments ⁽¹⁾	(15)	0	0	(15)
Balance as of December 31, 2016	5,018	4,600	4,901	14,519
Acquisitions	6	0	0	6
Other adjustments ⁽¹⁾	8	0	0	8
Balance as of December 31, 2017	5,032	4,600	4,901	14,533
Acquisitions	33	0	0	33
Reductions in goodwill related to divestitures	0	0	(17)	(17)
Other adjustments ⁽¹⁾	(5)	0	0	(5)
Balance as of December 31, 2018	\$ 5,060	\$ 4,600	\$ 4,884	\$ 14,544

⁽¹⁾ Represents foreign currency translation adjustments.

The goodwill impairment test, performed as of October 1 of each year, is a two-step test. The first step identifies whether there is potential impairment by comparing the fair value of a reporting unit to its carrying amount, including goodwill. If the fair value of a reporting unit is less than its carrying amount, the second step of the impairment test is required to measure the amount of any potential impairment loss.

The fair value of reporting units is calculated using a discounted cash flow methodology, a form of the income approach. The calculation uses projected cash flows based on each reporting unit's internal forecast and uses the perpetuity growth method to calculate terminal values. These cash flows and terminal values are then discounted using appropriate discount rates, which are largely based on our external cost of equity with adjustments for risk inherent in each reporting unit. Cash flows are adjusted, as necessary, in order to maintain each reporting unit's equity capital requirements. Our discounted cash flow analysis requires management to make judgments about future loan and deposit growth, revenue growth, credit losses, and capital rates. The key inputs into the discounted cash flow analysis were consistent with market data, where available, indicating that assumptions used were within a reasonable range of observable market data.

Intangible Assets

In connection with our acquisitions, we recorded intangible assets that include PCCR intangibles, core deposit intangibles, brokerage relationship intangibles, partnership contract intangibles, other contract intangibles and trademark intangibles. At acquisition, the PCCR intangibles reflect the estimated value of existing credit card holder relationships and the core deposit intangibles reflect the estimated value of deposit relationships. There were no meaningful impairments of intangible assets in 2018 and 2017. We recorded an impairment charge of \$17 million in 2016 related primarily to our brokerage relationship intangibles.

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Intangible assets are typically amortized over their respective estimated useful lives on either an accelerated or straight-line basis. The following table summarizes the actual amortization expense recorded for the years ended December 31, 2018, 2017 and 2016 and the estimated future amortization expense for intangible assets as of December 31, 2018:

Table 7.3: Amortization Expense

<i>(Dollars in millions)</i>	Amortization Expense
Actual for the year ended December 31,	
2016	\$ 386
2017	245
2018	174
Estimated future amounts for the year ended December 31,	
2019	109
2020	58
2021	28
2022	20
2023	14
Thereafter	17
Total estimated future amounts	<u>\$ 246</u>

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NOTE 8—PREMISES, EQUIPMENT AND LEASE COMMITMENTS

Premises and Equipment

The following table presents our premises and equipment as of December 31, 2018 and 2017.

Table 8.1: Components of Premises and Equipment

<i>(Dollars in millions)</i>	December 31,	
	2018	2017
Land	\$ 386	\$ 406
Buildings and improvements	3,994	3,302
Furniture and equipment	2,018	1,901
Computer software	1,847	1,753
In progress	482	902
Total premises and equipment, gross	8,727	8,264
Less: Accumulated depreciation and amortization	(4,536)	(4,231)
Total premises and equipment, net	<u>\$ 4,191</u>	<u>\$ 4,033</u>

Depreciation and amortization expense was \$728 million, \$662 million and \$710 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Lease Commitments

Certain premises and equipment are leased under agreements that expire at various dates through 2071, without taking into consideration available renewal options. Many of these leases provide for payment by us, as the lessee, of variable costs including property taxes, insurance premiums, cost of maintenance and other costs. Total rent expense was \$322 million, \$307 million and \$330 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Future minimum rental commitments as of December 31, 2018, for all non-cancellable operating leases with initial or remaining terms of one year or more are as follows:

Table 8.2: Lease Commitments

<i>(Dollars in millions)</i>	Estimated Future Minimum Rental Commitments
2019	\$ 352
2020	309
2021	279
2022	249
2023	213
Thereafter	949
Total	<u>\$ 2,351</u>

The table above does not include minimum sublease rental income of \$183 million expected to be received in future years under all non-cancellable leases.

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NOTE 9—DEPOSITS AND BORROWINGS

Our deposits, which are our largest source of funding for our assets and operations, consist of non-interest-bearing and interest-bearing deposits, which include checking accounts, money market deposit accounts, negotiable order of withdrawals, savings deposits and time deposits.

We use a variety of other funding sources including short-term borrowings, senior and subordinated notes, securitized debt obligations and other borrowings. In addition, we utilize FHLB advances, which are secured by certain portions of our loan and investment securities portfolios. Securitized debt obligations are presented separately on our consolidated balance sheets, as they represent obligations of consolidated securitization trusts, while federal funds purchased and securities loaned or sold under agreements to repurchase, senior and subordinated notes and other borrowings, including FHLB advances, are included in other debt on our consolidated balance sheets.

The following tables summarize the components of our deposits, short-term borrowings and long-term debt as of December 31, 2018 and 2017. Our total short-term borrowings consist of federal funds purchased, securities loaned or sold under agreements to repurchase, and short-term FHLB advances. Our long-term debt consists of borrowings with an original contractual maturity of greater than one year. The carrying value presented below for these borrowings includes unamortized debt premiums and discounts, net of debt issuance costs and fair value hedge accounting adjustments.

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Table 9.1: Components of Deposits, Short-Term Borrowings and Long-Term Debt

<i>(Dollars in millions)</i>	December 31, 2018	December 31, 2017
Deposits:		
Non-interest-bearing deposits	\$ 23,483	\$ 26,404
Interest-bearing deposits ⁽¹⁾	226,281	217,298
Total deposits	<u>\$ 249,764</u>	<u>\$ 243,702</u>
Short-term borrowings:		
Federal funds purchased and securities loaned or sold under agreements to repurchase	\$ 352	\$ 576
FHLB advances	9,050	0
Total short-term borrowings	<u>\$ 9,402</u>	<u>\$ 576</u>

<i>(Dollars in millions)</i>	December 31, 2018			December 31, 2017	
	Maturity Dates	Stated Interest Rates	Weighted- Average Interest Rate	Carrying Value	Carrying Value
Long-term debt:					
Securitized debt obligations	2019-2025	1.33 - 3.31%	2.31%	\$ 18,307	\$ 20,010
Senior and subordinated notes:					
Fixed unsecured senior debt	2019-2028	1.85 - 4.75	3.03	23,290	22,776
Floating unsecured senior debt	2019-2023	2.97 - 3.72	3.39	2,993	3,446
Total unsecured senior debt			3.08	<u>26,283</u>	<u>26,222</u>
Fixed unsecured subordinated debt	2019-2026	3.38 - 8.80	4.09	4,543	4,533
Total senior and subordinated notes				<u>30,826</u>	<u>30,755</u>
Other long-term borrowings:					
FHLB advances	2020-2023	2.48 - 5.36	2.49	251	8,609
Other borrowings	2019-2035	1.00 - 13.63	6.16	119	331
Total other long-term borrowings				<u>370</u>	<u>8,940</u>
Total long-term debt				<u>\$ 49,503</u>	<u>\$ 59,705</u>
Total short-term borrowings and long-term debt				<u>\$ 58,905</u>	<u>\$ 60,281</u>

⁽¹⁾ Includes \$4.0 billion and \$1.3 billion of time deposits in denominations in excess of the \$250,000 federal insurance limit as of December 31, 2018 and 2017, respectively.

The following table presents the carrying value of our interest-bearing time deposits, securitized debt obligations and other debt by remaining contractual maturity as of December 31, 2018.

Table 9.2: Maturity Profile of Borrowings

<i>(Dollars in millions)</i>	2019	2020	2021	2022	2023	Thereafter	Total
Interest-bearing time deposits	\$ 22,548	\$ 6,524	\$ 4,065	\$ 4,036	\$ 1,176	\$ 122	\$ 38,471
Securitized debt obligations	6,845	5,266	2,298	2,531	714	653	18,307
Federal funds purchased and securities loaned or sold under agreements to repurchase	352	0	0	0	0	0	352
Senior and subordinated notes	5,314	4,350	4,920	2,504	4,163	9,575	30,826
Other borrowings	9,060	310	6	6	5	33	9,420
Total	<u>\$ 44,119</u>	<u>\$ 16,450</u>	<u>\$ 11,289</u>	<u>\$ 9,077</u>	<u>\$ 6,058</u>	<u>\$ 10,383</u>	<u>\$ 97,376</u>

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NOTE 10—DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

Use of Derivatives and Accounting for Derivatives

We regularly enter into derivative transactions to support our overall risk management activities. Our primary market risks stem from the impact on our earnings and economic value of equity due to changes in interest rates and, to a lesser extent, changes in foreign exchange rates. We manage our interest rate sensitivity by employing several techniques, which include changing the duration and re-pricing characteristics of various assets and liabilities by using interest rate derivatives. We also use foreign currency derivatives to limit our earnings and capital exposures to foreign exchange risk by hedging exposures denominated in foreign currencies. In addition to interest rate and foreign currency derivatives, we may also use a variety of other derivative instruments, including caps, floors, options, futures and forward contracts, to manage our interest rate and foreign exchange risks. We designate these risk management derivatives as either qualifying accounting hedges or free-standing derivatives. Qualifying accounting hedges are further designated as fair value hedges, cash flow hedges or net investment hedges, and free-standing derivatives are economic hedges that do not qualify for hedge accounting.

We also offer various interest rate, commodity and foreign currency derivatives as accommodation to our customers within our Commercial Banking business. We enter into these derivatives with our customers primarily to help them manage interest rate risks, hedge their energy and other commodities exposures, and manage foreign currency fluctuations. We then enter into offsetting derivative contracts with counterparties to economically hedge the majority of our subsequent exposures.

See below for additional information on our use of derivatives and how we account for them:

- *Fair Value Hedges:* We designate derivatives as fair value hedges when they are used to manage our exposure to changes in the fair value of certain financial assets and liabilities, which fluctuate in value as a result of movements in interest rates. Changes in the fair value of derivatives designated as fair value hedges are presented in the same line item on our consolidated statements of income as the earnings effect of the hedged items. Our fair value hedges consist of interest rate swaps that are intended to modify our exposure to interest rate risk on various fixed-rate financial assets and liabilities.
- *Cash Flow Hedges:* We designate derivatives as cash flow hedges when they are used to manage our exposure to variability in cash flows related to forecasted transactions. Changes in the fair value of derivatives designated as cash flow hedges are recorded as a component of AOCI. Those amounts are reclassified into earnings in the same period during which the forecasted transactions impact earnings and presented in the same line item on our consolidated statements of income as the earnings effect of the hedged items. Our cash flow hedges use interest rate swaps and floors that are intended to hedge the variability in interest receipts or interest payments on some of our variable-rate financial assets or liabilities. We also enter into foreign currency forward contracts to hedge our exposure to variability in cash flows related to intercompany borrowings denominated in a foreign currency.
- *Net Investment Hedges:* We use net investment hedges to manage the foreign currency exposure related to our net investments in foreign operations that have functional currencies other than the U.S. dollar. Changes in the fair value of net investment hedges are recorded in the translation adjustment component of AOCI, offsetting the translation gain or loss from those foreign operations. We execute net investment hedges using foreign currency forward contracts to hedge the translation exposure of the net investment in our foreign operations under the forward method.
- *Free-Standing Derivatives:* Our free-standing derivatives primarily consist of our customer accommodation derivatives and other economic hedges. The customer accommodation derivatives and the related offsetting contracts are mainly interest rate, commodity and foreign currency contracts. The other free-standing derivatives are primarily used to economically hedge the risk of changes in the fair value of our commercial mortgage loan origination and purchase commitments as well as other interests held. Changes in the fair value of free-standing derivatives are recorded in earnings as a component of other non-interest income.

In the first quarter of 2018, we adopted ASU No. 2017-12, Derivatives and Hedging (Topic 815): *Targeted Improvements to Accounting for Hedging Activities*. The disclosures below reflect the adoption changes.

**CAPITAL ONE FINANCIAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

Derivatives Counterparty Credit Risk

Counterparty Types

Derivative instruments contain an element of credit risk that arises from the potential failure of a counterparty to perform according to the terms of the contract. We execute our derivative contracts primarily in over-the-counter (“OTC”) markets. We also execute minimal amounts of interest rate and commodity futures in the exchange-traded derivative markets. Our OTC derivatives consist of both centrally cleared and uncleared bilateral contracts. In our centrally cleared contracts, our counterparties are central counterparty clearinghouses (“CCPs”), such as the Chicago Mercantile Exchange (“CME”) and the LCH Group (“LCH”). In our uncleared bilateral contracts, we enter into agreements directly with our derivative counterparties.

Counterparty Credit Risk Management

We generally manage our counterparty credit risk associated with derivative instruments by entering into legally enforceable master netting arrangements, where possible, and exchanging margin and collateral with our counterparties, typically in the form of cash or high-quality liquid securities. The amount of collateral exchanged is dependent upon the fair value of the derivative instruments as well as the fair value of the pledged collateral. When valuing collateral, an estimate of the variation in price and liquidity over time is subtracted in the form of a “haircut” to discount the value of the collateral pledged. Our exposure to derivative counterparty credit risk, at any point in time, is equal to the amount reported as a derivative asset on our balance sheet. The fair value of derivatives is adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements and any associated cash collateral received or pledged. See Table 10.3 for our net exposure associated with derivatives.

The terms under which we collateralize our exposures differ between cleared exposures and uncleared bilateral exposures.

- *CCPs:* We clear eligible OTC derivatives as part of our regulatory requirements with CCPs. Futures commission merchants (“FCMs”) serve as the intermediary between CCPs and us. CCPs require that we post initial and variation margin through our FCMs to mitigate the risk of non-payment or default. Initial margin is required upfront by CCPs as collateral against potential losses on our cleared derivative contracts. Variation margin is exchanged on a daily basis to account for mark-to-market changes in the derivative contracts. For CME-cleared OTC derivatives, we characterize variation margin cash payments as settlements. Effective January 16, 2018, LCH amended its rulebook to legally characterize variation margin payments as settlements. We adopted this rule change in the first quarter of 2018. As a result, the balances for the LCH-cleared OTC derivatives are reduced to reflect the settlement of these positions. Our FCM agreements governing these derivative transactions include provisions that may require us to post additional collateral.
- *Bilateral Counterparties:* We generally enter into legally enforceable master netting agreements and collateral agreements, where possible, with bilateral derivative counterparties to mitigate the risk of default. We review our collateral positions on a daily basis and exchange collateral with our counterparties in accordance with these agreements. These bilateral agreements typically provide the right to offset exposure with the same counterparty and require the party in a net liability position to post collateral. Agreements with certain bilateral counterparties require both parties to maintain collateral in the event the fair values of derivative instruments exceed established exposure thresholds. Certain of these bilateral agreements include provisions requiring that our debt maintain a credit rating of investment grade or above by each of the major credit rating agencies. In the event of a downgrade of our debt credit rating below investment grade, some of our counterparties would have the right to terminate the derivative contract and close out the existing positions.

Credit Risk Valuation Adjustments

We record counterparty credit valuation adjustments (“CVAs”) on our derivative assets to properly reflect the credit quality of the counterparty. We consider collateral and legally enforceable master netting agreements that mitigate our credit exposure to each counterparty in determining CVA, which may be adjusted in future periods due to changes in the fair values of the derivative contracts, collateral and creditworthiness of the counterparty. We also record debit valuation adjustments (“DVAs”) to adjust the fair values of our derivative liabilities to reflect the impact of our own credit quality. We calculate this adjustment by comparing the spreads on our credit default swaps to the discount benchmark curve.

CAPITAL ONE FINANCIAL CORPORATION
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Balance Sheet Presentation

The following table summarizes the notional and fair values of our derivative instruments as of December 31, 2018 and 2017, which are segregated by derivatives that are designated as accounting hedges and those that are not, and are further segregated by type of contract within those two categories. The total derivative assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements and any associated cash collateral received or pledged. Derivative assets and liabilities are included in other assets and other liabilities, respectively, on our consolidated balance sheets.

Table 10.1: Derivative Assets and Liabilities at Fair Value

<i>(Dollars in millions)</i>	December 31, 2018			December 31, 2017		
	Notional or Contractual Amount	Derivative ⁽¹⁾⁽²⁾		Notional or Contractual Amount	Derivative ⁽¹⁾	
		Assets	Liabilities		Assets	Liabilities
Derivatives designated as accounting hedges:						
Interest rate contracts:						
Fair value hedges	\$ 53,413	\$ 64	\$ 28	\$ 56,604	\$ 102	\$ 164
Cash flow hedges	81,200	83	70	77,300	30	125
Total interest rate contracts	134,613	147	98	133,904	132	289
Foreign exchange contracts:						
Cash flow hedges	5,745	184	2	6,086	19	75
Net investment hedges	2,607	178	0	3,036	1	164
Total foreign exchange contracts	8,352	362	2	9,122	20	239
Total derivatives designated as accounting hedges	142,965	509	100	143,026	152	528
Derivatives not designated as accounting hedges:						
Customer accommodation:						
Interest rate contracts	49,386	190	256	39,429	316	221
Commodity contracts	10,673	797	786	8,111	518	496
Foreign exchange and other contracts	1,418	12	11	980	14	10
Total customer accommodation	61,477	999	1,053	48,520	848	727
Other interest rate exposures ⁽³⁾	6,427	29	36	3,857	40	8
Other contracts	1,636	2	12	1,209	0	5
Total derivatives not designated as accounting hedges	69,540	1,030	1,101	53,586	888	740
Total derivatives	\$ 212,505	\$ 1,539	\$ 1,201	\$ 196,612	\$ 1,040	\$ 1,268
Less: netting adjustment ⁽⁴⁾		(1,079)	(287)		(275)	(662)
Total derivative assets/liabilities		\$ 460	\$ 914		\$ 765	\$ 606

⁽¹⁾ Derivative assets and liabilities presented above exclude valuation adjustments related to non-performance risk. As of December 31, 2018 and 2017, the cumulative CVA balances were \$3 million and \$2 million, respectively, and the cumulative DVA balances were approximately \$1 million as of both December 31, 2018 and 2017.

⁽²⁾ Reflects a reduction in derivative assets of \$431 million and a reduction in derivative liabilities of \$397 million on our consolidated balance sheets as a result of adopting the LCH variation margin rule change in the first quarter of 2018.

⁽³⁾ Other interest rate exposures include commercial mortgage-related derivatives and interest rate swaps.

⁽⁴⁾ Represents balance sheet netting of derivative assets and liabilities, and related payables and receivables for cash collateral held or placed with the same counterparty.

**CAPITAL ONE FINANCIAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

The following table summarizes the carrying value of our hedged assets and liabilities in fair value hedges and the associated cumulative basis adjustments included in those carrying values as of December 31, 2018.

Table 10.2: Hedged Items in Fair Value Hedging Relationships

<i>(Dollars in millions)</i>	December 31, 2018		
	Carrying Amount Assets/(Liabilities)	Cumulative Amount of Basis Adjustments Included in the Carrying Amount	
		Total Assets/(Liabilities)	Discontinued- Hedging Relationships
Line item on our consolidated balance sheets in which the hedged item is included:			
Investment securities available for sale ⁽¹⁾⁽²⁾	\$ 14,067	\$ (6)	\$ (2)
Interest-bearing deposits	(13,101)	247	0
Securitized debt obligations	(5,887)	168	143
Senior and subordinated notes	(23,572)	315	392

⁽¹⁾ These amounts include the amortized cost basis of our investment securities designated in hedging relationships for which the hedged item is the last layer expected to be remaining at the end of the hedging relationship. As of December 31, 2018, the amortized cost basis of this portfolio was \$8.3 billion, the amount of the designated hedged items was \$4.0 billion, and the cumulative basis adjustment associated with these hedges was \$26 million.

⁽²⁾ Carrying value represents amortized cost.

Balance Sheet Offsetting of Financial Assets and Liabilities

Derivative contracts and repurchase agreements that we execute bilaterally in the OTC market are governed by enforceable master netting arrangements where we generally have the right to offset exposure with the same counterparty. Either counterparty can generally request to net settle all contracts through a single payment upon default on, or termination of, any one contract. We elect to offset the derivative assets and liabilities under netting arrangements for balance sheet presentation where a right of setoff exists. For derivative contracts entered into under master netting arrangements for which we have not been able to confirm the enforceability of the setoff rights, or those not subject to master netting arrangements, we do not offset our derivative positions for balance sheet presentation.

CAPITAL ONE FINANCIAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table presents as of December 31, 2018 and 2017 the gross and net fair values of our derivative assets and liabilities and repurchase agreements, as well as the related offsetting amounts permitted under U.S. GAAP. The table also includes cash and non-cash collateral received or pledged in accordance with such arrangements. The amount of collateral presented, however, is limited to the amount of the related net derivative fair values or outstanding balances; therefore, instances of over-collateralization are excluded.

Table 10.3: Offsetting of Financial Assets and Financial Liabilities

<i>(Dollars in millions)</i>	Gross Amounts Offset in the Balance Sheet			Net Amounts as Recognized	Securities Collateral Held Under Master Netting Agreements	Net Exposure
	Gross Amounts	Financial Instruments	Cash Collateral Received			
As of December 31, 2018						
Derivative assets ⁽¹⁾⁽²⁾	\$ 1,539	\$ (205)	\$ (874)	\$ 460	\$ 0	\$ 460
As of December 31, 2017						
Derivative assets ⁽¹⁾	1,040	(202)	(73)	765	0	765
<i>(Dollars in millions)</i>	Gross Amounts Offset in the Balance Sheet			Net Amounts as Recognized	Securities Collateral Pledged Under Master Netting Agreements	Net Exposure
	Gross Amounts	Financial Instruments	Cash Collateral Pledged			
As of December 31, 2018						
Derivative liabilities ⁽¹⁾⁽²⁾	\$ 1,201	\$ (205)	\$ (82)	\$ 914	\$ 0	\$ 914
Repurchase agreements ⁽³⁾	352	0	0	352	(352)	0
As of December 31, 2017						
Derivative liabilities ⁽¹⁾	1,268	(202)	(460)	606	0	606
Repurchase agreements	576	0	0	576	(576)	0

⁽¹⁾ We received cash collateral from derivative counterparties totaling \$925 million and \$91 million as of December 31, 2018 and 2017, respectively. We also received securities from derivative counterparties with a fair value of \$1 million as of both December 31, 2018 and 2017, which we have the ability to re-pledge. We posted \$633 million and \$966 million of cash collateral as of December 31, 2018 and 2017, respectively.

⁽²⁾ Reflects a reduction in derivative assets of \$431 million and a reduction in derivative liabilities of \$397 million on our consolidated balance sheets as a result of adopting the LCH variation margin rule change in the first quarter of 2018.

⁽³⁾ Represents customer repurchase agreements that mature the next business day. As of December 31, 2018, we pledged collateral with a fair value of \$359 million under these customer repurchase agreements, which were primarily agency RMBS securities.

Income Statement and AOCI Presentation

Fair Value and Cash Flow Hedges

The net gains (losses) recognized in our consolidated statements of income related to derivatives in fair value and cash flow hedging relationships are presented below for the years ended December 31, 2018, 2017 and 2016. Prior period amounts were not reclassified to conform to the current period presentation.

**CAPITAL ONE FINANCIAL CORPORATION
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Table 10.4: Effects of Fair Value and Cash Flow Hedge Accounting

<i>(Dollars in millions)</i>	Year Ended December 31, 2018						
	Net Interest Income						Non-Interest Income
	Investment Securities	Loans, Including Loans Held for Sale	Other	Deposits	Securitized Debt Obligations	Senior and Subordinated Notes	Other
Total amounts presented in our consolidated statements of income	\$ 2,211	\$ 24,728	\$ 237	\$ (2,598)	\$ (496)	\$ (1,125)	\$ 1,002
Fair value hedging relationships:							
Interest rate contracts:							
Interest recognized on derivatives	(23)	0	0	(76)	(53)	2	0
Gains (losses) recognized on derivatives	34	0	0	(60)	(61)	(212)	0
Gains (losses) recognized on hedged items ⁽¹⁾	(33)	0	0	52	38	131	0
Net income (expense) recognized on fair value hedges	(22)	0	0	(84)	(76)	(79)	0
Cash flow hedging relationships:⁽²⁾							
Interest rate contracts:							
Realized gains (losses) reclassified from AOCI into net income	(9)	(82)	0	0	0	0	0
Foreign exchange contracts:							
Realized gains (losses) reclassified from AOCI into net income ⁽³⁾	0	0	47	0	0	0	(2)
Net income (expense) recognized on cash flow hedges	\$ (9)	\$ (82)	\$ 47	\$ 0	\$ 0	\$ 0	\$ (2)

⁽¹⁾ Includes amortization expense of \$75 million for the year ended December 31, 2018 related to basis adjustments on discontinued hedges.

⁽²⁾ See "Note 11—Stockholders' Equity" for the effects of cash flow and net investment hedges on AOCI and amounts reclassified to net income, net of tax.

⁽³⁾ The amount recognized in non-interest income represents the net impact of \$191 million of realized gains on foreign exchange contracts reclassified from AOCI into net income to offset \$193 million of foreign currency transaction losses on our foreign currency denominated inter-company borrowings for the year ended December 31, 2018.

<i>(Dollars in millions)</i>	Year Ended December 31,	
	2017	2016
Derivatives designated as fair value hedges:		
Fair value interest rate contracts:		
Gains (losses) recognized in net income on derivatives	\$ (212)	\$ (613)
Gains (losses) recognized in net income on hedged items	216	603
Net fair value hedge ineffectiveness gains (losses)	4	(10)
Derivatives designated as cash flow hedges:		
Gains (losses) reclassified from AOCI into net income:		
Interest rate contracts	91	192
Foreign exchange contracts	17	3
Subtotal	108	195
Gains (losses) recognized in net income due to ineffectiveness:		
Interest rate contracts	2	(4)
Net derivative gains (losses) recognized in net income	\$ 110	\$ 191

CAPITAL ONE FINANCIAL CORPORATION
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In the next 12 months, we expect to reclassify to earnings net after-tax losses of \$167 million recorded in AOCI as of December 31, 2018. These amounts will offset the cash flows associated with the hedged forecasted transactions. The maximum length of time over which forecasted transactions were hedged was approximately five years as of December 31, 2018. The amount we expect to reclassify into earnings may change as a result of changes in market conditions and ongoing actions taken as part of our overall risk management strategy.

Free-Standing Derivatives

The net impacts to our consolidated statements of income related to free-standing derivatives are presented below for the years ended December 31, 2018, 2017 and 2016. These gains or losses are recognized in other non-interest income on our consolidated statements of income.

Table 10.5: Gains (Losses) on Free-Standing Derivatives

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Gains (losses) recognized in other non-interest income:			
Customer accommodation:			
Interest rate contracts	\$ 25	\$ 20	\$ 24
Commodity contracts	16	13	10
Foreign exchange and other contracts	7	5	3
Total customer accommodation	48	38	37
Other interest rate exposures	33	61	67
Other contracts	(21)	0	(9)
Total	<u>\$ 60</u>	<u>\$ 99</u>	<u>\$ 95</u>

**CAPITAL ONE FINANCIAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

NOTE 11—STOCKHOLDERS' EQUITY

Preferred Stock

The following table summarizes the Company's preferred stock issued and outstanding as of December 31, 2018 and 2017.

Table 11.1: Preferred Stock Issued and Outstanding⁽¹⁾

Series	Description	Issuance Date	Redeemable by Issuer Beginning	Per Annum Dividend Rate	Dividend Frequency	Liquidation Preference per Share	Total Shares Outstanding	Carrying Value (in millions)	
								December 31, 2018	December 31, 2017
Series B	6.00% Non-Cumulative	August 20, 2012	September 1, 2017	6.00%	Quarterly	\$ 1,000	875,000	\$ 853	\$ 853
Series C	6.25% Non-Cumulative	June 12, 2014	September 1, 2019	6.25	Quarterly	1,000	500,000	484	484
Series D	6.70% Non-Cumulative	October 31, 2014	December 1, 2019	6.70	Quarterly	1,000	500,000	485	485
Series E	Fixed-to-Floating Rate Non-Cumulative	May 14, 2015	June 1, 2020	5.55% through 5/31/2020; 3-mo. LIBOR+ 380 bps thereafter	Semi-Annually through 5/31/2020; Quarterly thereafter	1,000	1,000,000	988	988
Series F	6.20% Non-Cumulative	August 24, 2015	December 1, 2020	6.20	Quarterly	1,000	500,000	484	484
Series G	5.20% Non-Cumulative	July 29, 2016	December 1, 2021	5.20	Quarterly	1,000	600,000	583	583
Series H	6.00% Non-Cumulative	November 29, 2016	December 1, 2021	6.00	Quarterly	1,000	500,000	483	483
Total								\$ 4,360	\$ 4,360

⁽¹⁾ Except for Series E, ownership is held in the form of depository shares, each representing a 1/40th interest in a share of fixed-rate non-cumulative perpetual preferred stock.

Accumulated Other Comprehensive Income

Accumulated other comprehensive income primarily consists of accumulated net unrealized gains or losses associated with available for sale securities, the changes in fair value of derivatives designated as cash flow hedges, unrealized gains and losses on securities held to maturity on the transfer date from the available for sale category and foreign currency translation adjustments. Unrealized gains and losses for securities held to maturity are amortized over the remaining life of the security with no expected impact on future net income as amortization of these gains or losses will be offset by the amortization of premium or discount created from the transfer of securities from available to sale to held to maturity.

CAPITAL ONE FINANCIAL CORPORATION
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The following table includes the AOCI impacts from the adoption of accounting standards and the changes in AOCI by component for the years ended December 31, 2018, 2017 and 2016.

Table 11.2: Accumulated Other Comprehensive Income (Loss)

<i>(Dollars in millions)</i>	Securities Available for Sale	Securities Held to Maturity	Cash Flow Hedges	Foreign Currency Translation Adjustments ⁽¹⁾	Other	Total
AOCI as of December 31, 2015	\$ 162	\$ (725)	\$ 120	\$ (143)	\$ (30)	\$ (616)
Other comprehensive income (loss) before reclassifications	(172)	0	(3)	(79)	7	(247)
Amounts reclassified from AOCI into earnings	6	104	(195)	0	(1)	(86)
Other comprehensive income (loss), net of tax	(166)	104	(198)	(79)	6	(333)
AOCI as of December 31, 2016	(4)	(621)	(78)	(222)	(24)	(949)
Other comprehensive income (loss) before reclassifications	62	0	(95)	84	30	81
Amounts reclassified from AOCI into earnings	(41)	97	(108)	0	(6)	(58)
Other comprehensive income (loss), net of tax	21	97	(203)	84	24	23
AOCI as of December 31, 2017	17	(524)	(281)	(138)	0	(926)
Cumulative effects from adoption of new accounting standards	3	(113)	(63)	0	(28)	(201)
Transfer of securities held to maturity to available for sale ⁽²⁾	(325)	407	0	0	0	82
Other comprehensive income (loss) before reclassifications	(293)	0	38	(39)	(8)	(302)
Amounts reclassified from AOCI into earnings	159	40	(112)	0	(3)	84
Other comprehensive income (loss), net of tax	(459)	447	(74)	(39)	(11)	(136)
AOCI as of December 31, 2018	\$ (439)	\$ (190)	\$ (418)	\$ (177)	\$ (39)	\$ (1,263)

⁽¹⁾ Includes other comprehensive gain of \$150 million, loss of \$143 million and gain of \$280 million for the years ended December 31, 2018, 2017 and 2016, respectively, from hedging instruments designated as net investment hedges.

⁽²⁾ In the first quarter of 2018, we made a one-time transfer of held to maturity securities with a carrying value of \$9.0 billion to available for sale as a result of our adoption of ASU No. 2017-12. This transfer resulted in an after-tax gain of \$82 million (\$107 million pre-tax) to AOCI.

**CAPITAL ONE FINANCIAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

The following table presents the impacts on net income of amounts reclassified from each component of AOCI for the years ended December 31, 2018, 2017 and 2016.

Table 11.3: Reclassifications from AOCI

<i>(Dollars in millions)</i>		Year Ended December 31,		
AOCI Components	Affected Income Statement Line Item	2018	2017	2016
Securities available for sale:				
	Non-interest income	\$ (209)	\$ 65	\$ (10)
	Income tax provision (benefit)	(50)	24	(4)
	Net income (loss)	(159)	41	(6)
Securities held to maturity:⁽¹⁾				
	Interest income	(53)	(150)	(164)
	Income tax benefit	(13)	(53)	(60)
	Net loss	(40)	(97)	(104)
Cash flow hedges:				
Interest rate contracts:	Interest income	(91)	145	306
Foreign exchange contracts:	Interest income	47	27	6
	Non-interest income	191	1	(2)
	Income from continuing operations before income taxes	147	173	310
	Income tax provision	35	65	115
	Net income	112	108	195
Other:				
	Non-interest income and non-interest expense	4	9	2
	Income tax provision	1	3	1
	Net income	3	6	1
Total reclassifications		\$ (84)	\$ 58	\$ 86

⁽¹⁾ The amortization of unrealized holding gains or losses reported in AOCI for securities held to maturity will be offset by the amortization of premium or discount created from the transfer of securities from available for sale to held to maturity, which occurred at fair value. These unrealized gains or losses will be amortized over the remaining life of the security with no expected impact on future net income.

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The table below summarizes other comprehensive income (loss) activity and the related tax impact for the years ended December 31, 2018, 2017 and 2016.

Table 11.4: Other Comprehensive Income (Loss)

<i>(Dollars in millions)</i>	Year Ended December 31,								
	2018			2017			2016		
	Before Tax	Provision (Benefit)	After Tax	Before Tax	Provision (Benefit)	After Tax	Before Tax	Provision (Benefit)	After Tax
Other comprehensive income (loss):									
Net unrealized gains (losses) on securities available for sale	\$ (605)	\$ (146)	\$ (459)	\$ 23	\$ 2	\$ 21	\$ (254)	\$ (88)	\$ (166)
Net changes in securities held to maturity	588	141	447	150	53	97	164	60	104
Net unrealized losses on cash flow hedges	(98)	(24)	(74)	(325)	(122)	(203)	(315)	(117)	(198)
Foreign currency translation adjustments ⁽¹⁾	9	48	(39)	3	(81)	84	86	165	(79)
Other	(15)	(4)	(11)	38	14	24	10	4	6
Other comprehensive income (loss)	\$ (121)	\$ 15	\$ (136)	\$ (111)	\$ (134)	\$ 23	\$ (309)	\$ 24	\$ (333)

⁽¹⁾ Includes the impact of hedging instruments designated as net investment hedges.

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NOTE 12—REGULATORY AND CAPITAL ADEQUACY

Regulation and Capital Adequacy

Bank holding companies (“BHCs”) and national banks are subject to capital adequacy standards adopted by the Federal Reserve, Office of the Comptroller of the Currency and Federal Deposit Insurance Corporation (collectively, the “Federal Banking Agencies”), including the Basel III Capital Rule. Moreover, the Banks, as insured depository institutions, are subject to prompt corrective action (“PCA”) capital regulations, which require the Federal Banking Agencies to take prompt corrective action for banks that do not meet PCA capital requirements. We entered parallel run under Advanced Approaches on January 1, 2015, during which we calculate capital ratios under both the Basel III Standardized Approach and the Basel III Advanced Approaches, though we continue to use the Standardized Approach for purposes of meeting regulatory capital requirements.

Under the Basel III Capital Rule, the regulatory minimum risk-based and leverage capital requirements for Advanced Approaches banking organizations include a common equity Tier 1 capital ratio of at least 4.5%, a Tier 1 capital ratio of at least 6.0%, a total capital ratio of at least 8.0% and a Tier 1 leverage capital ratio of at least 4.0%. The Basel III Capital Rule introduced a supplementary leverage ratio for all Advanced Approaches banking organizations, which compares Tier 1 capital to total leverage exposure, which includes all on-balance sheet assets and certain off-balance sheet exposures, including derivatives and unused commitments. Given that we are in our Basel III Advanced Approaches parallel run, we calculate the ratio based on Tier 1 capital under the Standardized Approach. The supplementary leverage ratio minimum requirement of 3.0% became effective on January 1, 2018.

For additional information about the capital adequacy guidelines we are subject to, see “PART I—Item 1. Business—Supervision and Regulation.”

**CAPITAL ONE FINANCIAL CORPORATION
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The following table provides a comparison of our regulatory capital amounts and ratios under the Basel III Standardized Approach subject to the applicable transition provisions, the regulatory minimum capital adequacy ratios and the PCA well-capitalized level for each ratio, where applicable, as of December 31, 2018 and 2017.

Table 12.1: Capital Ratios Under Basel III⁽¹⁾

<i>(Dollars in millions)</i>	December 31, 2018				December 31, 2017			
	Capital Amount	Capital Ratio	Minimum Capital Adequacy	Well-Capitalized	Capital Amount	Capital Ratio	Minimum Capital Adequacy	Well-Capitalized
Capital One Financial Corp:								
Common equity Tier 1 capital ⁽²⁾	\$ 33,071	11.2%	4.5%	N/A	\$ 30,036	10.3%	4.5%	N/A
Tier 1 capital ⁽³⁾	37,431	12.7	6.0	6.0%	34,396	11.8	6.0	6.0%
Total capital ⁽⁴⁾	44,645	15.1	8.0	10.0	41,962	14.4	8.0	10.0
Tier 1 leverage ⁽⁵⁾	37,431	10.7	4.0	N/A	34,396	9.9	4.0	N/A
Supplementary leverage ⁽⁶⁾	37,431	9.0	3.0	N/A	34,396	8.4	N/A	N/A
COBNA:								
Common equity Tier 1 capital ⁽²⁾	16,378	15.3	4.5	6.5	14,791	14.3	4.5	6.5
Tier 1 capital ⁽³⁾	16,378	15.3	6.0	8.0	14,791	14.3	6.0	8.0
Total capital ⁽⁴⁾	18,788	17.6	8.0	10.0	17,521	16.9	8.0	10.0
Tier 1 leverage ⁽⁵⁾	16,378	14.0	4.0	5.0	14,791	12.7	4.0	5.0
Supplementary leverage ⁽⁶⁾	16,378	11.5	3.0	N/A	14,791	10.4	N/A	N/A
CONA:								
Common equity Tier 1 capital ⁽²⁾	25,637	13.0	4.5	6.5	23,771	12.2	4.5	6.5
Tier 1 capital ⁽³⁾	25,637	13.0	6.0	8.0	23,771	12.2	6.0	8.0
Total capital ⁽⁴⁾	27,912	14.2	8.0	10.0	26,214	13.4	8.0	10.0
Tier 1 leverage ⁽⁵⁾	25,637	9.1	4.0	5.0	23,771	8.6	4.0	5.0
Supplementary leverage ⁽⁶⁾	25,637	8.0	3.0	N/A	23,771	7.7	N/A	N/A

⁽¹⁾ Capital ratios are calculated based on the Basel III Standardized Approach framework, subject to applicable transition provisions, such as the inclusion of the unrealized gains and losses on securities available for sale included in AOCI and adjustments related to intangible assets other than goodwill. The inclusion of AOCI and the adjustments related to intangible assets are phased-in at 80% for 2017 and 100% for 2018. Capital requirements that are not applicable are denoted by "N/A."

⁽²⁾ Common equity Tier 1 capital ratio is a regulatory capital measure calculated based on common equity Tier 1 capital divided by risk-weighted assets.

⁽³⁾ Tier 1 capital ratio is a regulatory capital measure calculated based on Tier 1 capital divided by risk-weighted assets.

⁽⁴⁾ Total capital ratio is a regulatory capital measure calculated based on total capital divided by risk-weighted assets.

⁽⁵⁾ Tier 1 leverage ratio is a regulatory capital measure calculated based on Tier 1 capital divided by adjusted average assets.

⁽⁶⁾ Supplementary leverage ratio is a regulatory capital measure calculated based on Tier 1 capital divided by total leverage exposure.

We exceeded the minimum capital requirements and each of the Banks exceeded the minimum regulatory requirements and were well-capitalized under PCA requirements as of both December 31, 2018 and 2017.

Regulatory restrictions exist that limit the ability of the Banks to transfer funds to our BHC. As of December 31, 2018, funds available for dividend payments from COBNA and CONA were \$3.2 billion and \$2.2 billion, respectively. Applicable provisions that may be contained in our borrowing agreements or the borrowing agreements of our subsidiaries may limit our subsidiaries' ability to pay dividends to us or our ability to pay dividends to our stockholders.

The Federal Reserve requires depository institutions to maintain certain cash reserves against specified deposit liabilities. As of December 31, 2018 and 2017, our reserve requirements totaled \$1.9 billion and \$2.2 billion, respectively.

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NOTE 13—EARNINGS PER COMMON SHARE

The following table sets forth the computation of basic and diluted earnings per common share. Dividends and undistributed earnings allocated to participating securities represent the undistributed earnings allocated to participating securities using the two-class method permitted by U.S. GAAP for computing earnings per share.

Table 13.1: Computation of Basic and Diluted Earnings per Common Share

	Year Ended December 31,		
	2018	2017	2016
<i>(Dollars and shares in millions, except per share data)</i>			
Income from continuing operations, net of tax	\$ 6,025	\$ 2,117	\$ 3,770
Loss from discontinued operations, net of tax	(10)	(135)	(19)
Net income	6,015	1,982	3,751
Dividends and undistributed earnings allocated to participating securities	(40)	(13)	(24)
Preferred stock dividends	(265)	(265)	(214)
Net income available to common stockholders	\$ 5,710	\$ 1,704	\$ 3,513
Total weighted-average basic shares outstanding	479.9	484.2	504.9
Effect of dilutive securities:			
Stock options	1.6	2.5	2.0
Other contingently issuable shares	1.1	1.2	1.3
Warrants ⁽¹⁾	0.5	0.7	1.6
Total effect of dilutive securities	3.2	4.4	4.9
Total weighted-average diluted shares outstanding	483.1	488.6	509.8
Basic earnings per common share:			
Net income from continuing operations	\$ 11.92	\$ 3.80	\$ 7.00
Loss from discontinued operations	(0.02)	(0.28)	(0.04)
Net income per basic common share	\$ 11.90	\$ 3.52	\$ 6.96
Diluted earnings per common share:⁽²⁾			
Net income from continuing operations	\$ 11.84	\$ 3.76	\$ 6.93
Loss from discontinued operations	(0.02)	(0.27)	(0.04)
Net income per diluted common share	\$ 11.82	\$ 3.49	\$ 6.89

⁽¹⁾ Represents warrants issued as part of the U.S. Department of Treasury's Troubled Assets Relief Program which had all been exercised or expired on November 14, 2018. There were 1.3 million and 4.1 million warrants to purchase common stock outstanding as of December 31, 2017 and 2016, respectively.

⁽²⁾ Excluded from the computation of diluted earnings per share were 56 thousand shares related to options with an exercise price of \$86.34, 233 thousand shares related to options with exercise prices ranging from \$82.08 to \$86.34 and 1.7 million shares related to options with exercise prices ranging from \$63.73 to \$88.81 for the years ended December 31, 2018, 2017 and 2016, respectively, because their inclusion would be anti-dilutive.

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NOTE 14—STOCK-BASED COMPENSATION PLANS

Stock Plans

We have one active stock-based compensation plan available for the issuance of shares to employees, directors and third-party service providers (if applicable). As of December 31, 2018, under the Amended and Restated 2004 Stock Incentive plan (“2004 Plan”), we are authorized to issue 55 million common shares in various forms, including incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards (“RSAs”), share-settled restricted stock units (“RSUs”), performance share awards (“PSAs”) and performance share units (“PSUs”). Of this amount, approximately 13 million shares remain available for future issuance as of December 31, 2018. The 2004 Plan permits the use of newly issued shares or treasury shares upon the settlement of options and stock-based incentive awards, and we generally settle by issuing new shares.

We also issue cash-settled restricted stock units (and in the past issued cash equity units). These cash-settled units are not counted against the common shares authorized for issuance or available for issuance under the 2004 Plan.

Total stock-based compensation expense recognized during 2018, 2017 and 2016 was \$170 million, \$244 million and \$239 million, respectively. The total income tax benefit for stock-based compensation recognized during 2018, 2017 and 2016 was \$34 million, \$92 million and \$89 million, respectively.

Stock Options

Stock options have a maximum contractual term of ten years. Generally, the exercise price of stock options will equal the fair market value of our common stock on the date of grant. Option vesting is determined at the time of grant and may be subject to the achievement of any applicable performance conditions. Options generally become exercisable over three years beginning on the first anniversary of the date of grant; however, some option grants cliff-vest on or shortly after the first or third anniversary of the grant date.

The following table presents a summary of 2018 activity for stock options and the balance of stock options exercisable as of December 31, 2018.

Table 14.1: Summary of Stock Options Activity

<i>(Shares in thousands, and intrinsic value in millions)</i>	Shares Subject to Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding as of January 1, 2018	4,766	\$ 48.50		
Granted	0	0.00		
Exercised	(1,310)	28.65		
Forfeited	0	0.00		
Expired	0	0.00		
Outstanding as of December 31, 2018	<u>3,456</u>	<u>\$ 56.03</u>	3.88 years	\$ 71
Exercisable as of December 31, 2018	<u>3,043</u>	<u>\$ 53.36</u>	3.37 years	\$ 68

There were no stock options granted in 2018 and the weighted-average fair value of stock options granted during 2017 and 2016 was \$21.48 and \$16.36, respectively. The total intrinsic value of stock options exercised during 2018, 2017 and 2016 was \$94 million, \$92 million and \$31 million, respectively.

Effective January 1, 2017, we adopted the new accounting guidance related to employee share-based payments. As a result of the adoption of this new guidance, all excess tax benefits on share-based payment awards are recognized within income tax expense in the consolidated statements of income. The following table presents the cash received from the exercise of stock options under all stock-based incentive arrangements, and the actual income tax benefit for the tax deductions from the exercise of the stock options.

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Table 14.2: Stock Options Cash Flow Impact

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Cash received for options exercised	\$ 38	\$ 122	\$ 135
Tax benefit	22	34	12

Compensation expense for stock options is based on the grant date fair value, which is estimated using the Black-Scholes option-pricing model. This option pricing model requires the use of numerous assumptions, many of which are subjective. Certain stock options have discretionary vesting conditions and are remeasured at fair value each reporting period.

The following table presents the weighted-average assumptions used to value stock options granted during 2017 and 2016, and there were no stock options granted in 2018. Dividend yield represents the expected dividend rate over the life of the option, and expected option lives are calculated based on historical activities.

Table 14.3: Assumptions Used to Value Stock Options Granted

	Year Ended December 31,	
	2017	2016
Dividend yield	1.85%	2.07%
Volatility ⁽¹⁾	27.00	30.00
Risk-free interest rate (U.S. Treasury yield curve)	2.30	1.64
Expected option lives	6.6 years	6.6 years

⁽¹⁾ The volatility assumption was based on the implied volatility of exchange-traded options and the historical volatility of common stock.

Restricted Stock Awards and Units

RSAs and RSUs represent share-settled awards that do not contain performance conditions and are granted to certain employees at no cost to the recipient. RSAs and RSUs generally vest over three years from the date of grant; however, some RSAs and RSUs cliff vest on or shortly after the first or third anniversary of the grant date. These awards and units are subject to forfeiture until certain restrictions have lapsed, including continued employment for a specified period of time. A recipient of an RSA is entitled to voting rights and is generally entitled to dividends on the common stock. A recipient of an RSU is entitled to receive a share of common stock after the applicable restrictions lapse. Additionally, a recipient of an RSU is generally entitled to receive cash payments or additional shares of common stock equivalent to any dividends paid on the underlying common stock during the period the RSU is outstanding, but is not entitled to voting rights.

Generally, the value of RSAs and RSUs will equal the fair value of our common stock on the date of grant and the expense is recognized over the vesting period.

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The following table presents a summary of 2018 activity for RSAs and RSUs.

Table 14.4: Summary of Restricted Stock Awards and Units

	Restricted Stock Awards		Restricted Stock Units	
	Shares	Weighted-Average Grant Date Fair Value per Share	Units	Weighted-Average Grant Date Fair Value per Unit
<i>(Shares/units in thousands)</i>				
Unvested as of January 1, 2018	16	\$ 56.39	3,379	\$ 74.06
Granted	0	N/A	1,547	100.73
Vested	(16)	56.39	(1,426)	75.62
Forfeited	0	0.00	(155)	88.16
Unvested as of December 31, 2018	0	\$ 0.00	3,345	\$ 85.01

There were no RSAs granted in 2018, and the total fair value of RSAs that vested during 2018, 2017 and 2016 was \$2 million, \$3 million and \$21 million, respectively. There was no unrecognized compensation expense related to unvested RSAs as of December 31, 2018.

The weighted-average grant date fair value of RSUs in 2018, 2017 and 2016 was \$100.73, \$86.20 and \$65.19, respectively. The total fair value of RSUs that vested during 2018, 2017 and 2016 was \$139 million, \$110 million and \$42 million, respectively. The unrecognized compensation expense related to unvested RSUs as of December 31, 2018 was \$139 million, which is expected to be amortized over a weighted-average period of approximately 1.8 years.

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Performance Share Awards and Units

PSAs and PSUs represent share-settled awards that contain performance conditions and are granted to certain employees at no cost to the recipient. PSAs and PSUs generally vest over three years from the date of grant; however, some PSUs cliff vest on or shortly after the third anniversary of the grant date. Generally, the value of PSAs and PSUs will equal the fair market value of our common stock on the date of grant and the expense is recognized over the vesting period. Certain PSAs and PSUs have discretionary vesting conditions and are remeasured at fair value each reporting period. A recipient of a PSA is entitled to voting rights and is generally entitled to dividends on the common stock. A recipient of a PSU is entitled to receive a share of common stock after the applicable restrictions lapse. Additionally, a recipient of a PSU is generally entitled to receive cash payments or additional shares of common stock equivalent to any dividends paid on the underlying common stock during the period the PSU is outstanding, but is not entitled to voting rights.

The number of PSUs that step vest over three years can be reduced by 50% or 100% depending on whether specific performance goals are met during the vesting period. The number of three-year cliff vesting PSUs that will ultimately vest is contingent upon meeting specific performance goals over a three-year period. These PSUs also include an opportunity to receive from 0% to 150% of the target number of common shares.

There were no unvested PSAs at the beginning of the year, and no new PSAs were granted during the year. As such, the following table presents a summary of 2018 activity for PSUs only.

Table 14.5: Summary of Performance Share Units

<i>(Shares/units in thousands)</i>	Performance Share Units	
	Units	Weighted-Average Grant Date Fair Value per Unit
Unvested as of January 1, 2018	1,918	\$ 75.38
Granted ⁽¹⁾	878	100.65
Vested ⁽¹⁾	(932)	74.80
Forfeited	(60)	90.35
Unvested as of December 31, 2018	1,804	\$ 87.48

⁽¹⁾ Granted and vested include adjustments for achievement of specific performance goals for performance share units granted in prior periods.

The weighted-average grant date fair value of PSUs granted during 2018, 2017 and 2016 was \$100.65, \$82.48 and \$62.89, respectively. The total fair value of PSUs that vested was \$92 million, \$90 million and \$54 million in 2018, 2017 and 2016, respectively. The unrecognized compensation expense related to unvested PSUs as of December 31, 2018 was \$31 million, which is expected to be amortized over a weighted-average period of approximately 11 months.

Cash-Settled Units

Cash-settled units are recorded as liabilities and measured at fair value on a quarterly basis. Cash-settled units are settled with a cash payment for each unit vested that is equal to the average fair market value of our common stock for the 15 trading days preceding the vesting date. Cash-settled units generally vest over three years beginning on the first anniversary of the date of grant; however, some cash-settled units cliff vest shortly before the one year anniversary of the grant date or on or shortly after the third anniversary of the grant date. Cash-settled units vesting during 2018, 2017 and 2016 resulted in cash payments to associates of \$39 million, \$42 million and \$36 million, respectively. There was no unrecognized compensation cost for unvested cash-settled units as of December 31, 2018.

Associate Stock Purchase Plan

We maintain an Associate Stock Purchase Plan ("Purchase Plan"), which is a compensatory plan under the accounting guidance for stock-based compensation. We recognized \$23 million, \$23 million and \$18 million in compensation expense for 2018, 2017 and 2016, respectively, under the Purchase Plan.

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Under the Purchase Plan, eligible associates are permitted to contribute between 1% and 15% of their base compensation through payroll deductions and receive a 15% Company match on the contribution. Both the associates' contributions and the Company match are applied to the purchase of our unissued common or treasury stock at the current market price. Shares may also be acquired on the open market. Dividends for active participants are automatically reinvested in additional shares of common stock. Of the 33 million total authorized shares as of December 31, 2018, 16 million shares were available for issuance.

Dividend Reinvestment and Stock Purchase Plan

We maintain a Dividend Reinvestment and Stock Purchase Plan ("DRP"), which allows participating stockholders to purchase additional shares of our common stock through automatic reinvestment of dividends or optional cash investments. Of the 8 million total authorized shares as of December 31, 2018, 7 million shares were available for issuance under the DRP.

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NOTE 15—EMPLOYEE BENEFIT PLANS

Defined Contribution Plan

We sponsor a contributory Associate Savings Plan (the “Plan”) in which all full-time and part-time associates over the age of 18 are eligible to participate. We make non-elective contributions to each eligible associates’ account and match a portion of associate contributions. We also sponsor a voluntary non-qualified deferred compensation plan in which select groups of employees are eligible to participate. We make contributions to this plan based on participants’ deferral of salary, bonuses and other eligible pay. In addition, we match participants’ excess compensation (compensation over the Internal Revenue Service compensation limit) less deferrals. We contributed a total of \$291 million, \$282 million and \$252 million to these plans during the years ended December 31, 2018, 2017 and 2016, respectively.

Defined Benefit Pension and Other Postretirement Benefit Plans

We sponsor a frozen qualified defined benefit pension plan and several non-qualified defined benefit pension plans. We also sponsor a plan that provides other postretirement benefits, including medical and life insurance coverage.

Our pension plans and the other postretirement benefit plan are valued using December 31, 2018 and 2017 measurement dates. Our policy is to amortize prior service amounts on a straight-line basis over the average remaining years of service to full eligibility for benefits of active plan participants.

The following table sets forth, on an aggregated basis, changes in the benefit obligation and plan assets, the funded status and how the funded status is recognized on our consolidated balance sheets.

Table 15.1: Changes in Benefit Obligation and Plan Assets

	Defined Pension Benefits		Other Postretirement Benefits	
	2018	2017	2018	2017
<i>(Dollars in millions)</i>				
Change in benefit obligation:				
Accumulated benefit obligation as of January 1,	\$ 178	\$ 180	\$ 35	\$ 39
Service cost	1	2	0	0
Interest cost	6	7	1	2
Benefits paid	(15)	(18)	(2)	(3)
Net actuarial loss (gain)	(13)	7	(5)	(3)
Accumulated benefit obligation as of December 31,	<u>\$ 157</u>	<u>\$ 178</u>	<u>\$ 29</u>	<u>\$ 35</u>
Change in plan assets:				
Fair value of plan assets as of January 1,	\$ 246	\$ 226	\$ 6	\$ 6
Actual return on plan assets	(14)	37	0	1
Employer contributions	1	1	2	2
Benefits paid	(15)	(18)	(2)	(3)
Fair value of plan assets as of December 31,	<u>\$ 218</u>	<u>\$ 246</u>	<u>\$ 6</u>	<u>\$ 6</u>
Over (under) funded status as of December 31,	<u>\$ 61</u>	<u>\$ 68</u>	<u>\$ (23)</u>	<u>\$ (29)</u>
<i>(Dollars in millions)</i>				
Balance sheet presentation as of December 31,				
Other assets	\$ 71	\$ 80	\$ 0	\$ 0
Other liabilities	(10)	(12)	(23)	(29)
Net amount recognized as of December 31,	<u>\$ 61</u>	<u>\$ 68</u>	<u>\$ (23)</u>	<u>\$ (29)</u>

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The following table presents the components of net periodic benefit costs and other amounts recognized in other comprehensive income.

Table 15.2: Components of Net Periodic Benefit Cost

	Year Ended December 31,					
	2018			2017		
	2018	2017	2016	2018	2017	2016
	Defined Pension Benefits			Other Postretirement Benefits		
<i>(Dollars in millions)</i>						
Components of net periodic benefit cost:						
Service cost	\$ 1	\$ 2	\$ 2	\$ 0	\$ 0	\$ 0
Interest cost	6	7	7	1	2	2
Expected return on plan assets	(15)	(14)	(14)	0	0	0
Amortization of transition obligation, prior service credit and net actuarial loss (gain)	1	1	1	(6)	(6)	(6)
Net periodic benefit gain	<u>\$ (7)</u>	<u>\$ (4)</u>	<u>\$ (4)</u>	<u>\$ (5)</u>	<u>\$ (4)</u>	<u>\$ (4)</u>
Changes recognized in other comprehensive income, pretax:						
Net actuarial gain (loss)	\$ (17)	\$ 16	\$ 4	\$ 5	\$ 4	\$ 5
Reclassification adjustments for amounts recognized in net periodic benefit cost	1	1	1	(6)	(6)	(6)
Total gain (loss) recognized in other comprehensive income	<u>\$ (16)</u>	<u>\$ 17</u>	<u>\$ 5</u>	<u>\$ (1)</u>	<u>\$ (2)</u>	<u>\$ (1)</u>

Pre-tax amounts recognized in AOCI that have not yet been recognized as a component of net periodic benefit cost consist of net actuarial loss of \$64 million and \$49 million for our defined benefit pension plans as of December 31, 2018 and 2017, respectively, and net actuarial gain of \$9 million and \$10 million for our other postretirement benefit plan as of December 31, 2018 and 2017, respectively. There was no meaningful prior service cost recognized in AOCI.

The following table presents weighted-average assumptions used in the accounting for the plans:

Table 15.3: Assumptions Used in the Accounting for the Plans

	December 31,					
	2018			2017		
	2018	2017	2016	2018	2017	2016
	Defined Pension Benefits			Other Postretirement Benefits		
Assumptions for benefit obligations at measurement date:						
Discount rate	4.2%	3.5%	4.0%	4.2%	3.5%	4.0%
Assumptions for periodic benefit cost for the year ended:						
Discount rate	3.5	4.0	4.2	3.5	4.0	4.2
Expected long-term rate of return on plan assets	6.5	6.5	6.5	6.5	6.5	6.5
Assumptions for year-end valuations:						
Health care cost trend rate assumed for next year:						
Pre-age 65	N/A	N/A	N/A	6.2	6.5	6.7
Post-age 65	N/A	N/A	N/A	6.2	6.5	6.8
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	N/A	N/A	N/A	4.5	4.5	4.5
Year the rate reaches the ultimate trend rate	N/A	N/A	N/A	2037	2037	2037

To develop the expected long-term rate of return on plan assets assumption, consideration was given to the current level of expected returns on risk-free investments (primarily government bonds), the historical level of the risk premium associated with the other asset classes in which the portfolio is invested and the expectations for future returns of each asset class. The expected return for each asset class was then weighted based on the target asset allocation to develop the expected long-term rate of return on the plan assets assumption for the portfolio.

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Plan Assets and Fair Value Measurement

Plan assets are invested using a total return investment approach whereby a mix of equity securities and debt securities are used to preserve asset values, diversify risk and enhance our ability to achieve our benchmark for long-term investment return. Investment strategies and asset allocations are based on careful consideration of plan liabilities, the plan's funded status and our financial condition. Investment performance and asset allocation are measured and monitored on a quarterly basis.

Plan assets are managed in a balanced portfolio comprised of three major components: domestic equity, international equity and domestic fixed income investments. The expected role of plan equity investments is to maximize the long-term real growth of fund assets, while the role of fixed income investments is to generate current income, provide for more stable periodic returns and provide some protection against a prolonged decline in the market value of fund equity investments.

The investment guidelines provide the following asset allocation targets and ranges: domestic equity target of 39% and allowable range of 34% to 44%, international equity target of 16% and allowable range of 11% to 21%, fixed income investments target of 45% and allowable range of 35% to 55%.

As of December 31, 2018, substantially all of our plan assets of \$224 million were invested in common collective trusts, which primarily consist of government securities, corporate and municipal bonds, and domestic and international equity securities. As of December 31, 2017, our plan assets totaled \$252 million, of which approximately 60% were invested in common collective trusts and the remaining 40% were primarily invested in corporate bonds and government securities. The common collective trusts are measured at net asset value per share, or its equivalent, as a practical expedient and therefore are not classified in the fair value hierarchy, and the remaining investments were classified as Level 2 in the fair value hierarchy. For information on fair value measurements, including descriptions of Level 1, 2 and 3 of the fair value hierarchy and the valuation methods we utilize, see "Note 17—Fair Value Measurement."

Expected Future Benefit Payments

As of December 31, 2018, the benefits expected to be paid in the next ten years totaled \$103 million for our defined pension benefit plans and \$20 million for our other postretirement benefit plan, respectively.

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NOTE 16—INCOME TAXES

We recognize the current and deferred tax consequences of all transactions that have been recognized in the financial statements using the provisions of the enacted tax laws. Current income tax expense represents our estimated taxes to be paid or refunded for the current period and includes income tax expense related to our uncertain tax positions, as well as tax-related interest and penalties. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. We record valuation allowances to reduce deferred tax assets to the amount that is more likely than not to be realized. We record the effect of remeasuring deferred tax assets and liabilities due to a change in tax rates or laws as a component of income tax expense related to continuing operations for the period in which the change is enacted. We subsequently release income tax effects stranded in AOCI using a portfolio approach. Income tax benefits are recognized when, based on their technical merits, they are more likely than not to be sustained upon examination. The amount recognized is the largest amount of benefit that is more likely than not to be realized upon settlement.

In the fourth quarter of 2017, we recorded charges of \$1.8 billion associated with the impacts of the Tax Act, and there were no material adjustments made to this amount during the measurement period which ended in December 2018. In the fourth quarter of 2018, we recognized a tax benefit of \$284 million as a result of an approval from the Internal Revenue Service (IRS) related to a tax methodology change on rewards costs.

The following table presents significant components of the provision for income taxes attributable to continuing operations:

Table 16.1: Significant Components of the Provision for Income Taxes Attributable to Continuing Operations

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Current income tax provision:			
Federal taxes	\$ 210	\$ 1,585	\$ 2,087
State taxes	234	223	209
International taxes	135	133	104
Total current provision	\$ 579	\$ 1,941	\$ 2,400
Deferred income tax provision (benefit):			
Federal taxes	\$ 620	\$ 1,509	\$ (621)
State taxes	115	(69)	(63)
International taxes	(21)	(6)	(2)
Total deferred provision (benefit)	714	1,434	(686)
Total income tax provision	\$ 1,293	\$ 3,375	\$ 1,714

The international income tax provision is related to pre-tax earnings from foreign operations of approximately \$382 million, \$410 million and \$287 million in 2018, 2017 and 2016, respectively.

Total income tax provision does not reflect the tax effects of items that are included in accumulated other comprehensive income, which include a tax provision of \$15 million, tax benefit of \$134 million and tax provision of \$24 million in 2018, 2017 and 2016, respectively. See "Note 11—Stockholders' Equity" for additional information.

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The following table presents the reconciliation of the U.S. federal statutory income tax rate to the effective income tax rate applicable to income from continuing operations for the years ended December 31, 2018, 2017 and 2016:

Table 16.2: Effective Income Tax Rate

	Year Ended December 31,		
	2018	2017	2016
Income tax at U.S. federal statutory tax rate	21.0 %	35.0 %	35.0 %
Affordable housing, new markets and other tax credits	(4.0)	(5.8)	(4.9)
IRS method changes	(3.9)	0.0	0.0
Tax-exempt interest and other nontaxable income	(0.7)	(1.5)	(1.4)
Impacts of the Tax Act	(0.3)	32.2	N/A
State taxes, net of federal benefit	3.2	2.2	1.9
Non-deductible expenses	2.2	0.7	0.9
Other, net	0.2	(1.3)	(0.2)
Effective income tax rate	<u>17.7 %</u>	<u>61.5 %</u>	<u>31.3 %</u>

The following table presents significant components of our deferred tax assets and liabilities as of December 31, 2018 and 2017. The valuation allowance below represents the adjustment of certain state deferred tax assets and net operating loss carryforwards to the amount we have determined is more likely than not to be realized.

Table 16.3: Significant Components of Deferred Tax Assets and Liabilities

<i>(Dollars in millions)</i>	December 31, 2018	December 31, 2017
Deferred tax assets:		
Allowance for loan and lease losses	\$ 1,700	\$ 1,768
Rewards programs	500	936
Security and loan valuations	288	424
Net operating loss and tax credit carryforwards	271	244
Goodwill and intangibles	187	201
Compensation and employee benefits	167	208
Partnership investments	162	130
Net unrealized losses on derivatives	135	104
Unearned income	114	130
Other assets	152	156
Subtotal	<u>3,676</u>	<u>4,301</u>
Valuation allowance	(245)	(226)
Total deferred tax assets	<u>3,431</u>	<u>4,075</u>
Deferred tax liabilities:		
Original issue discount	720	703
Fixed assets and leases	204	168
Loan fees and expenses	75	68
Mortgage servicing rights	48	57
Other liabilities	239	215
Total deferred tax liabilities	<u>1,286</u>	<u>1,211</u>
Net deferred tax assets	<u>\$ 2,145</u>	<u>\$ 2,864</u>

Our federal net operating loss carryforwards were less than \$1 million and \$15 million as of December 31, 2018 and 2017, respectively. These operating loss carryforwards were attributable to prior acquisitions and will expire from 2019 to 2035. Under

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IRS rules, our ability to utilize these losses against future income is limited. The net tax value of our state net operating loss carryforwards was \$253 million and \$241 million as of December 31, 2018 and 2017, respectively, and they will expire from 2019 to 2038. Our foreign tax credit carryforward was \$19 million as of December 31, 2018 and will expire in 2028.

We recognize accrued interest and penalties related to income taxes as a component of income tax expense. We recognized \$6 million and \$5 million of expense in 2018 and 2017, respectively, and \$5 million of benefit in 2016.

The following table presents the accrued balance of tax, interest and penalties related to unrecognized tax benefits:

Table 16.4: Reconciliation of the Change in Unrecognized Tax Benefits

<i>(Dollars in millions)</i>	Gross Unrecognized Tax Benefits	Accrued Interest and Penalties	Gross Tax, Interest and Penalties
Balance as of January 1, 2016	\$ 130	\$ 33	\$ 163
Additions for tax positions related to prior years	0	6	6
Reductions for tax positions related to prior years due to IRS and other settlements	(45)	(15)	(60)
Balance as of December 31, 2016	85	24	109
Additions for tax positions related to prior years	5	7	12
Reductions for tax positions related to prior years due to IRS and other settlements	(4)	(2)	(6)
Balance as of December 31, 2017	86	29	115
Additions for tax positions related to the current year	28	0	28
Additions for tax positions related to prior years	402	25	427
Reductions for tax positions related to prior years due to IRS and other settlements	(76)	(19)	(95)
Balance as of December 31, 2018	<u>\$ 440</u>	<u>\$ 35</u>	<u>\$ 475</u>
Portion of balance at December 31, 2018 that, if recognized, would impact the effective income tax rate	<u>\$ 181</u>	<u>\$ 28</u>	<u>\$ 209</u>

We are subject to examination by the IRS and other tax authorities in certain countries and states in which we operate. The tax years subject to examination vary by jurisdiction. During 2018, we continued our participation in the IRS Compliance Assurance Process ("CAP") for our 2017 federal income tax return. On that filed return, we requested a change in method of accounting with respect to the proper timing for the recognition of the costs associated with our reward programs for 2017 and prior years. This method change was granted by the IRS during the fourth quarter of 2018, resulting in the withdrawal of our pending refund claims with respect to this issue for the 2012 and 2013 tax years and resolving this issue up through the 2017 tax year. As in prior years, the examination of our 2017 federal income tax return was substantially completed prior to the filing of the return, with the IRS reserving a limited number of issues for further post-filing review. We continued our participation in CAP for the 2018 tax year, with a similar expectation that the IRS examination will be substantially completed prior to the filing of our 2018 federal income tax return in 2019. We have been accepted into CAP for 2019. During 2018, the Company also entered into settlement agreements with various states to resolve outstanding economic nexus issues for prior tax years.

It is reasonably possible that further adjustments to our unrecognized tax benefits may be made within 12 months of the reporting date as a result of future judicial or regulatory interpretations of existing tax laws. At this time, an estimate of the potential change to the amount of unrecognized tax benefits cannot be made.

The Tax Act requires that all unremitted earnings of our subsidiaries operating outside the U.S. are deemed to be repatriated as of December 31, 2017. As such, a liability of \$111 million was paid with our 2017 federal tax return for the deemed repatriation of \$1.5 billion of undistributed foreign earnings. No actual distributions of these earnings have been made as of December 31, 2018. Upon repatriation of these earnings, there would be no additional U.S. federal income taxes. In accordance with the accounting for income taxes in special areas, these earnings are considered by management to be invested indefinitely, except for the earnings of our Philippines subsidiary from which we expect to make distributions in 2019.

As of December 31, 2018, U.S. income taxes of \$69 million have not been provided for approximately \$287 million of previously acquired thrift bad debt reserves created for tax purposes as of December 31, 1987. These amounts, acquired as a result of previous mergers and acquisitions, are subject to recapture in the unlikely event that CONA, as the successor to the merged and acquired entities, makes distributions in excess of earnings and profits, redeems its stock or liquidates.

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NOTE 17—FAIR VALUE MEASUREMENT

Fair value, also referred to as an exit price, is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The fair value accounting guidance provides a three-level fair value hierarchy for classifying financial instruments. This hierarchy is based on the markets in which the assets or liabilities trade and whether the inputs to the valuation techniques used to measure fair value are observable or unobservable. The fair value measurement of a financial asset or liability is assigned a level based on the lowest level of any input that is significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are described below:

- Level 1: Valuation is based on quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Valuation is based on observable market-based inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Valuation is generated from techniques that use significant assumptions not observable in the market. Valuation techniques include pricing models, discounted cash flow methodologies or similar techniques.

The accounting guidance for fair value measurements requires that we maximize the use of observable inputs and minimize the use of unobservable inputs in determining fair value. The accounting guidance provides for the irrevocable option to elect, on a contract-by-contract basis, to measure certain financial assets and liabilities at fair value at inception of the contract and record any subsequent changes in fair value in earnings. We have not made any material fair value option elections as of or for the periods disclosed herein.

Fair Value Governance and Control

We have a governance framework and a number of key controls that are intended to ensure that our fair value measurements are appropriate and reliable. Our governance framework provides for independent oversight and segregation of duties. Our control processes include review and approval of new transaction types, price verification, and review of valuation judgments, methods, models, process controls and results.

Groups independent of our trading and investing functions participate in the review and validation process. Tasks performed by these groups include periodic verification of fair value measurements to determine if assigned fair values are reasonable, including comparing prices from vendor pricing services to other available market information.

Our Fair Value Committee (“FVC”), which includes representation from business areas, Risk Management and Finance, provides guidance and oversight to ensure an appropriate valuation control environment. The FVC regularly reviews and approves our fair valuations to ensure that our valuation practices are consistent with industry standards and adhere to regulatory and accounting guidance.

We have a model policy, established by an independent Model Risk Office, which governs the validation of models and related supporting documentation to ensure the appropriate use of models for pricing and fair value measurements. The Model Risk Office validates all models and provides ongoing monitoring of their performance.

The fair value governance process is set up in a manner that allows the Chairperson of the FVC to escalate valuation disputes that cannot be resolved by the FVC to a more senior committee called the Valuations Advisory Committee (“VAC”) for resolution. The VAC is chaired by the Chief Financial Officer and includes other members of senior management. The VAC convenes to review escalated valuation disputes.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

In 2018, we adopted ASU No. 2016-01, Financial Instrument-Overall (Subtopic 825-10): *Recognition and Measurement of Financial Assets and Financial Liabilities* and in the fourth quarter of 2018, we early adopted ASU No. 2018-13 Fair Value Measurement (Topic 820): *Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement*. The disclosures below reflect the adoption changes.

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The following describes the valuation techniques used in estimating the fair value of our financial assets and liabilities recorded at fair value on a recurring basis.

Investment Securities

Quoted prices in active markets are used to measure the fair value of U.S. Treasury securities. For the majority of securities in other investment categories, we utilize multiple vendor pricing services to obtain fair value measurements. A waterfall of pricing vendors is determined in order of preference. The determination of the top-ranked pricing vendor is made on an annual basis as part of an assessment of the performance of pricing services provided by the vendors. A pricing service may be considered as the preferred or primary pricing provider depending on how closely aligned its prices are to other vendor prices, and how consistent the prices are with other available market information. The price of each security is confirmed by comparing with other vendor prices before it is finalized.

RMBS and CMBS securities are generally classified as Level 2 or 3. When significant assumptions are not consistently observable, fair values are derived using the best available data. Such data may include quotes provided by dealers, valuation from external pricing services, independent pricing models, or other model-based valuation techniques, for example, calculation of the present values of future cash flows incorporating assumptions such as benchmark yields, spreads, prepayment speeds, credit ratings and losses. Generally, the pricing services utilize observable market data to the extent available. Pricing models may be used, which can vary by asset class and may also incorporate available trade, bid and other market information. Across asset classes, information such as trader/dealer inputs, credit spreads, forward curves and prepayment speeds are used to help determine appropriate valuations. Because many fixed income securities do not trade on a daily basis, the pricing models may apply available information through processes such as benchmarking curves, grouping securities based on their characteristics and using matrix pricing to prepare valuations. In addition, model processes are used by the pricing services to develop prepayment assumptions.

We validate the pricing obtained from the primary pricing providers through comparison of pricing to additional sources, including other pricing services, dealer pricing indications in transaction results and other internal sources. Pricing variances among different pricing sources are analyzed. Additionally, on an on-going basis, we request more detailed information from the valuation vendors to understand the pricing methodology and assumptions used to value the securities.

Derivative Assets and Liabilities

We use both exchange-traded and OTC derivatives to manage our interest rate and foreign currency risk exposures. When quoted market prices are available and used to value our exchange-traded derivatives, we classify them as Level 1. However, predominantly all of our derivatives do not have readily available quoted market prices. Therefore, we value most of our derivatives using vendor-based valuation techniques. We primarily rely on market observable inputs for our models, such as interest rate yield curves, credit curves, option volatility and currency rates. These inputs can vary depending on the type of derivatives and nature of the underlying rate, price or index upon which the value of the derivative is based. We typically classify derivatives as Level 2 when significant inputs can be observed in a liquid market and the model itself does not require significant judgment. When instruments are traded in less liquid markets and significant inputs are unobservable, such as interest rate swaps whose remaining terms do not correlate with market observable interest rate yield curves, such derivatives are classified as Level 3. The impact of credit risk valuation adjustments are considered when measuring the fair value of derivative contracts in order to reflect the credit quality of the counterparty and our own credit quality. Official internal pricing is compared against additional pricing sources such as external valuation agents and other internal sources. Pricing variances among different pricing sources are analyzed and validated. These derivatives are included in other assets or other liabilities on the consolidated balance sheets.

Retained Interests in Securitizations

We have retained interests in various mortgage securitizations from previous acquisitions. Our retained interests primarily include amounts previously funded under letters of credit to cover losses on certain manufactured housing securitizations, interest-only bonds issued by a trust and negative amortization bonds. We record these retained interests at fair value using market indications and valuation models to calculate the present value of future cash flows. The models incorporate various assumptions that market participants use in estimating future cash flows including constant prepayment rate, discount rate, default rate and loss severity. Due to the use of significant unobservable inputs, retained interests in securitizations are classified as Level 3 under the fair value hierarchy.

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Deferred Compensation Plan Assets

We offer a voluntary non-qualified deferred compensation plan to eligible associates. In addition to participant deferrals, we make contributions to the plan. Participants invest these contributions in a variety of publicly traded mutual funds. The plan assets, which consist of publicly traded mutual funds, are classified as Level 1.

The determination of the leveling of financial instruments in the fair value hierarchy is performed at the end of each reporting period. We consider all available information, including observable market data, indications of market liquidity and orderliness, and our understanding of the valuation techniques and significant inputs. Based upon the specific facts and circumstances of each instrument or instrument category, judgments are made regarding the significance of the observable or unobservable inputs to the instruments' fair value measurement in its entirety. If unobservable inputs are considered significant, the instrument is classified as Level 3. The process for determining fair value using unobservable inputs is generally more subjective and involves a high degree of management judgment and assumptions.

The following table displays our assets and liabilities measured on our consolidated balance sheets at fair value on a recurring basis as of December 31, 2018 and 2017.

Table 17.1: Assets and Liabilities Measured at Fair Value on a Recurring Basis

<i>(Dollars in millions)</i>	December 31, 2018				
	Fair Value Measurements Using			Netting Adjustments ⁽¹⁾	Total
	Level 1	Level 2	Level 3		
Assets:					
Securities available for sale:					
U.S. Treasury securities	\$ 6,144	\$ 0	\$ 0	—	\$ 6,144
RMBS	0	33,212	433	—	33,645
CMBS	0	4,729	10	—	4,739
Other securities	219	1,403	0	—	1,622
Total securities available for sale	6,363	39,344	443	—	46,150
Other assets:					
Derivative assets ⁽²⁾	0	1,501	38	\$ (1,079)	460
Other ⁽³⁾	265	0	158	—	423
Total assets	\$ 6,628	\$ 40,845	\$ 639	\$ (1,079)	\$ 47,033
Liabilities:					
Other liabilities:					
Derivative liabilities ⁽²⁾	\$ 0	\$ 1,153	\$ 48	\$ (287)	\$ 914
Total liabilities	\$ 0	\$ 1,153	\$ 48	\$ (287)	\$ 914

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<i>(Dollars in millions)</i>	December 31, 2017				
	Fair Value Measurements Using				
	Level 1	Level 2	Level 3	Netting Adjustments ⁽¹⁾	Total
Assets:					
Securities available for sale:					
U.S. Treasury securities	\$ 5,171	\$ 0	\$ 0	—	\$ 5,171
RMBS	0	27,178	614	—	27,792
CMBS	0	3,161	14	—	3,175
Other securities	320	1,192	5	—	1,517
Total securities available for sale	5,491	31,531	633	—	37,655
Other assets:					
Derivative assets ⁽²⁾	1	1,002	37	\$ (275)	765
Other ⁽³⁾	281	0	264	—	545
Total assets	\$ 5,773	\$ 32,533	\$ 934	\$ (275)	\$ 38,965
Liabilities:					
Other liabilities:					
Derivative liabilities ⁽²⁾	\$ 1	\$ 1,243	\$ 24	\$ (662)	\$ 606
Total liabilities	\$ 1	\$ 1,243	\$ 24	\$ (662)	\$ 606

⁽¹⁾ Represents balance sheet netting of derivative assets and liabilities, and related payables and receivables for cash collateral held or placed with the same counterparty. See "Note 10 — Derivative Instruments and Hedging Activities" for additional information.

⁽²⁾ Does not reflect \$2 million recognized as a net valuation allowance on derivative assets and liabilities for non-performance risk as of both December 31, 2018 and 2017. Non-performance risk is included in derivative assets and liabilities, which are part of other assets and liabilities on the consolidated balance sheets, and is offset through non-interest income in the consolidated statements of income.

⁽³⁾ As of December 31, 2018, other includes retained interests in securitizations of \$158 million, deferred compensation plan assets of \$264 million and equity securities of \$1 million. As of December 31, 2017, other includes consumer MSRs of \$92 million, retained interests in securitizations of \$172 million and deferred compensation plan assets of \$281 million.

Level 3 Recurring Fair Value Rollforward

The table below presents a reconciliation for all assets and liabilities measured and recognized at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended December 31, 2018, 2017 and 2016. Generally, transfers into Level 3 were primarily driven by the usage of unobservable assumptions in the pricing of these financial instruments as evidenced by wider pricing variations among pricing vendors and transfers out of Level 3 were primarily driven by the usage of assumptions corroborated by market observable information as evidenced by tighter pricing among multiple pricing sources.

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Table 17.2: Level 3 Recurring Fair Value Rollforward

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
Year Ended December 31, 2018

<i>(Dollars in millions)</i>	Balance, January 1, 2018	Total Gains (Losses) (Realized/Unrealized)		Purchases	Sales	Issuances	Settlements	Transfers Into Level 3	Transfers Out of Level 3	Balance, December 31, 2018	Net Unrealized Gains (Losses) Included in Net Income Related to Assets and Liabilities Still Held as of December 31, 2018 ⁽¹⁾
		Included in Net Income ⁽¹⁾	Included in OCI								
Securities available for sale: ⁽²⁾											
RMBS	\$ 614	\$ 32	\$ (8)	\$ 0	\$ 0	\$ 0	\$ (74)	\$ 203	\$ (334)	\$ 433	\$ 28
CMBS	14	0	0	0	0	0	(4)	0	0	10	0
Other securities	5	0	0	0	0	0	(5)	0	0	0	0
Total securities available for sale	633	32	(8)	0	0	0	(83)	203	(334)	443	28
Other assets:											
Consumer MSRs	92	3	0	0	(97)	2	0	0	0	0	0
Retained interest in securitizations	172	(14)	0	0	0	0	0	0	0	158	(14)
Net derivative assets (liabilities)⁽³⁾	13	(20)	0	0	0	13	(17)	0	1	(10)	(20)

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
Year Ended December 31, 2017

<i>(Dollars in millions)</i>	Balance, January 1, 2017	Total Gains (Losses) (Realized/Unrealized)		Purchases	Sales	Issuances	Settlements	Transfers Into Level 3	Transfers Out of Level 3	Balance, December 31, 2017	Net Unrealized Gains (Losses) Included in Net Income Related to Assets and Liabilities Still Held as of December 31, 2017 ⁽¹⁾
		Included in Net Income ⁽¹⁾	Included in OCI								
Securities available for sale:											
RMBS	\$ 518	\$ 90	\$ (24)	\$ 0	\$ (116)	\$ 0	\$ (92)	\$ 572	\$ (334)	\$ 614	\$ 19
CMBS	51	0	0	110	(50)	0	(4)	0	(93)	14	0
Other securities	9	0	0	0	0	0	(4)	0	0	5	0
Total securities available for sale	578	90	(24)	110	(166)	0	(100)	572	(427)	633	19
Other assets:											
Consumer MSRs	80	(5)	0	0	(3)	27	(7)	0	0	92	(5)
Retained interest in securitizations	201	(29)	0	0	0	0	0	0	0	172	(29)
Net derivative assets (liabilities)⁽³⁾	18	0	0	0	0	46	(44)	0	(7)	13	0

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Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
Year Ended December 31, 2016

<i>(Dollars in millions)</i>	Balance, January 1, 2016	Total Gains (Losses) (Realized/Unrealized)		Purchases	Sales	Issuances	Settlements	Transfers Into Level 3	Transfers Out of Level 3	Balance, December 31, 2016	Net Unrealized Gains (Losses) Included in Net Income Related to Assets and Liabilities Still Held as of December 31, 2016 ⁽¹⁾
		Included in Net Income ⁽¹⁾	Included in OCI								
Securities available for sale:											
RMBS	\$ 504	\$ 31	\$ 9	\$ 110	\$ 0	\$ 0	\$ (98)	\$ 380	\$ (418)	\$ 518	\$ 32
CMBS	97	0	0	266	0	0	(14)	64	(362)	51	0
Other securities	14	(9)	0	44	0	0	(10)	0	(30)	9	0
Total securities available for sale	615	22	9	420	0	0	(122)	444	(810)	578	32
Other assets:											
Consumer MSRs	68	(5)	0	0	0	23	(6)	0	0	80	(5)
Retained interest in securitizations	211	(10)	0	0	0	0	0	0	0	201	(10)
Net derivative assets (liabilities)⁽²⁾	30	(5)	0	0	0	36	(33)	0	(10)	18	(5)

⁽¹⁾ Realized gains (losses) on securities available for sale are included in net securities gains (losses), retained interests in securitizations and consumer MSRs are reported as a component of non-interest income in our consolidated statements of income. Gains (losses) on derivatives are included as a component of net interest income or non-interest income in our consolidated statements of income.

⁽²⁾ Net unrealized losses included in other comprehensive income related to Level 3 securities available for sale still held as of December 31, 2018 were \$17 million.

⁽³⁾ Includes derivative assets and liabilities of \$38 million and \$48 million, respectively, as of December 31, 2018, \$37 million and \$24 million, respectively, as of December 31, 2017, and \$47 million and \$29 million, respectively, as of December 31, 2016.

Significant Level 3 Fair Value Asset and Liability Inputs

Generally, uncertainties in fair value measurements of financial instruments, such as changes in unobservable inputs, may have a significant impact on fair value. Certain of these unobservable inputs will, in isolation, have a directionally consistent impact on the fair value of the instrument for a given change in that input. Alternatively, the fair value of the instrument may move in an opposite direction for a given change in another input. In general, an increase in the discount rate, default rates, loss severity and credit spreads, in isolation, would result in a decrease in the fair value measurement. In addition, an increase in default rates would generally be accompanied by a decrease in recovery rates, slower prepayment rates and an increase in liquidity spreads.

Techniques and Inputs for Level 3 Fair Value Measurements

The following table presents the significant unobservable inputs used to determine the fair values of our Level 3 financial instruments on a recurring basis. We utilize multiple vendor pricing services to obtain fair value for our securities. Several of our vendor pricing services are only able to provide unobservable input information for a limited number of securities due to software licensing restrictions. Other vendor pricing services are able to provide unobservable input information for all securities for which they provide a valuation. As a result, the unobservable input information for the securities available for sale presented below represents a composite summary of all information we are able to obtain. The unobservable input information for all other Level 3 financial instruments is based on the assumptions used in our internal valuation models.

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Table 17.3: Quantitative Information about Level 3 Fair Value Measurements

Quantitative Information about Level 3 Fair Value Measurements						
(Dollars in millions)	Fair Value at December 31, 2018	Significant Valuation Techniques	Significant Unobservable Inputs	Range	Weighted Average ⁽¹⁾	
Securities available for sale:						
RMBS	\$ 433	Discounted cash flows (vendor pricing)	Yield	3-11%	5%	
			Voluntary prepayment rate	0-17%	5%	
			Default rate	0-7%	3%	
			Loss severity	0-75%	65%	
CMBS	10	Discounted cash flows (vendor pricing)	Yield	3%	3%	
Other assets:						
Retained interests in securitization ⁽²⁾	158	Discounted cash flows	Life of receivables (months)	3-56		
			Voluntary prepayment rate	3-14%		
			Discount rate	4-6%	N/A	
			Default rate	2-4%		
			Loss severity	50-104%		
Net derivative assets (liabilities)	(10)	Discounted cash flows	Swap rates	3%	3%	

Quantitative Information about Level 3 Fair Value Measurements						
(Dollars in millions)	Fair Value at December 31, 2017	Significant Valuation Techniques	Significant Unobservable Inputs	Range	Weighted Average	
Securities available for sale:						
RMBS	\$ 614	Discounted cash flows (vendor pricing)	Yield	2-9%	5%	
			Voluntary prepayment rate	0-15%	4%	
			Default rate	0-8%	3%	
			Loss severity	0-90%	62%	
CMBS	14	Discounted cash flows (vendor pricing)	Yield	3%	3%	
			Voluntary prepayment rate	0%	0%	
Other securities	5	Discounted cash flows	Yield	2%	2%	
Other assets:						
Consumer MSRs	92	Discounted cash flows	Total prepayment rate	7-30%	16%	
			Discount rate	14%	14%	
			Option-adjusted spread rate	200-1,500 bps	458 bps	
			Servicing cost (\$ per loan)	\$75-\$100	\$76	
Retained interests in securitization ⁽²⁾	172	Discounted cash flows	Life of receivables (months)	6-79		
			Voluntary prepayment rate	2-12%		
			Discount rate	3-10%	N/A	
			Default rate	1-6%		
			Loss severity	3-115%		
Net derivative assets (liabilities)	13	Discounted cash flows	Swap rates	2%	2%	

⁽¹⁾ Weighted averages are calculated by using the product of the input multiplied by the relative fair value of the instruments.

⁽²⁾ Due to the nature of the various mortgage securitization structures in which we have retained interests, it is not meaningful to present a consolidated weighted average for the significant unobservable inputs.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

We are required to measure and recognize certain assets at fair value on a nonrecurring basis on the consolidated balance sheets. These assets are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances (for example, from the application of lower of cost or fair value accounting or when we evaluate for impairment). The following describes the valuation techniques used in estimating the fair value of our financial assets and liabilities recorded at fair value on a nonrecurring basis.

Net Loans Held for Investment

For loans held for investment that are recorded at fair value on our consolidated balance sheets and measured on a nonrecurring basis, the fair value is determined using appraisal values that are obtained from independent appraisers, broker pricing opinions or other available market information, adjusted for the estimated cost to sell. Due to the use of significant unobservable inputs,

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these loans are classified as Level 3 under the fair value hierarchy. Fair value adjustments for individually impaired collateralized loans held for investment are recorded in provision for credit losses in the consolidated statements of income.

Loans Held for Sale

Loans held for sale are carried at the lower of aggregate cost, net of deferred fees and deferred origination costs, or fair value. We originate loans with the intent to sell them. Certain commercial mortgage loans are sold to government-sponsored enterprises as part of a delegated underwriting and servicing ("DUS") program. For DUS commercial mortgage loans, the fair value is estimated primarily using contractual prices and other market observable inputs. Credit card loans held for sale are valued based on other market observable inputs. These assets are therefore classified as Level 2. Fair value adjustments to loans held for sale are recorded in other non-interest income in our consolidated statements of income.

Other Assets

Other assets subject to nonrecurring fair value measurements include equity investments accounted for under measurement alternative, foreclosed property, other repossessed assets and long-lived assets held for sale. These assets held for sale are carried at the lower of the carrying amount or fair value less costs to sell. The fair value is determined based on the appraisal value, listing price of the property or collateral provided by independent appraisers, and is adjusted for the estimated costs to sell. Due to the use of significant unobservable inputs, these assets are classified as Level 3 under the fair value hierarchy. Fair value adjustments for these assets are recorded in other non-interest expense in the consolidated statements of income.

The following table presents the carrying value of the assets measured at fair value on a nonrecurring basis and still held as of December 31, 2018 and 2017, and for which a nonrecurring fair value measurement was recorded during the year then ended:

Table 17.4: Nonrecurring Fair Value Measurements

<i>(Dollars in millions)</i>	December 31, 2018		
	Estimated Fair Value Hierarchy		
	Level 2	Level 3	Total
Loans held for investment	\$ 0	\$ 129	\$ 129
Loans held for sale	38	0	38
Other assets ⁽¹⁾	0	100	100
Total	\$ 38	\$ 229	\$ 267
	December 31, 2017		
	Estimated Fair Value Hierarchy		
	Level 2	Level 3	Total
Loans held for investment	\$ 0	\$ 182	\$ 182
Loans held for sale	177	1	178
Other assets ⁽¹⁾	0	35	35
Total	\$ 177	\$ 218	\$ 395

⁽¹⁾ As of December 31, 2018, other assets included equity investments accounted for under measurement alternative of \$24 million, foreclosed property and repossessed assets of \$57 million and long-lived assets held for sale of \$19 million. As of December 31, 2017, other assets included foreclosed property and repossessed assets of \$17 million and long-lived assets held for sale of \$18 million.

In the above table, loans held for investment are generally valued based in part on the estimated fair value of the underlying collateral and the non-recoverable rate, which is considered to be a significant unobservable input. The non-recoverable rate ranged from 0% to 84%, with a weighted average of 33%, and from 0% to 77%, with a weighted average of 21%, as of December 31, 2018 and 2017, respectively. The weighted average non-recoverable rate is calculated based on the estimated market value of the underlying collateral. The significant unobservable inputs and related quantitative information related to fair value of the other assets are not meaningful to disclose as they vary significantly across properties and collateral.

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The following table presents total nonrecurring fair value measurements for the period, included in earnings, attributable to the change in fair value relating to assets that are still held at December 31, 2018, 2017 and 2016.

Table 17.5: Nonrecurring Fair Value Measurements Included in Earnings

<i>(Dollars in millions)</i>	Total Gains (Losses)		
	Year Ended December 31,		
	2018	2017	2016
Loans held for investment	\$ (85)	\$ (100)	\$ (230)
Loans held for sale	0	(3)	(2)
Other assets ⁽¹⁾	(74)	(12)	(19)
Total	\$ (159)	\$ (115)	\$ (251)

⁽¹⁾ Other assets include fair value adjustments related to equity investments accounted for under the measurement alternative, foreclosed property, repossessed assets and long-lived assets held for sale.

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Fair Value of Financial Instruments

The following table presents the carrying value and estimated fair value, including the level within the fair value hierarchy, of our financial instruments that are not measured at fair value on a recurring basis on our consolidated balance sheets as of December 31, 2018 and 2017.

Table 17.6: Fair Value of Financial Instruments

<i>(Dollars in millions)</i>	December 31, 2018				
	Carrying Value	Estimated Fair Value	Estimated Fair Value Hierarchy		
			Level 1	Level 2	Level 3
Financial assets:					
Cash and cash equivalents	\$ 13,186	\$ 13,186	\$ 4,768	\$ 8,418	\$ 0
Restricted cash for securitization investors	303	303	303	0	0
Securities held to maturity	36,771	36,619	0	36,513	106
Net loans held for investment	238,679	241,556	0	0	241,556
Loans held for sale	1,192	1,218	0	1,218	0
Interest receivable	1,614	1,614	0	1,614	0
Other investments ⁽¹⁾	1,725	1,725	0	1,725	0
Financial liabilities:					
Deposits with defined maturities	38,471	38,279	0	38,279	0
Securitized debt obligations	18,307	18,359	0	18,359	0
Senior and subordinated notes	30,826	30,635	0	30,635	0
Federal funds purchased and securities loaned or sold under agreements to repurchase	352	352	0	352	0
Other borrowings ⁽²⁾	9,354	9,354	0	9,354	0
Interest payable	458	458	0	458	0
December 31, 2017					
<i>(Dollars in millions)</i>	December 31, 2017				
	Carrying Value	Estimated Fair Value	Estimated Fair Value Hierarchy		
			Level 1	Level 2	Level 3
Financial assets:					
Cash and cash equivalents	\$ 14,040	\$ 14,040	\$ 4,458	\$ 9,582	\$ 0
Restricted cash for securitization investors	312	312	312	0	0
Securities held to maturity	28,984	29,437	200	29,217	20
Net loans held for investment	246,971	251,468	0	0	251,468
Loans held for sale	971	952	0	949	3
Interest receivable	1,536	1,536	0	1,536	0
Other investments ⁽¹⁾	1,689	1,689	0	1,680	9
Financial liabilities:					
Deposits	243,702	243,732	26,404	217,328	0
Securitized debt obligations	20,010	20,122	0	20,122	0
Senior and subordinated notes	30,755	31,392	0	31,392	0
Federal funds purchased and securities loaned or sold under agreements to repurchase	576	576	0	576	0
Other borrowings ⁽²⁾	8,892	8,892	0	8,892	0
Interest payable	413	413	0	413	0

⁽¹⁾ Other investments as of December 31, 2018 include FHLB and Federal Reserve stock. Other investments as of December 31, 2017 include FHLB and Federal Reserve stock, as well as cost method investments. These investments are included in other assets on our consolidated balance sheets.

⁽²⁾ Other borrowings excludes capital lease obligations.

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NOTE 18—BUSINESS SEGMENTS AND REVENUE FROM CONTRACTS WITH CUSTOMERS

Our principal operations are organized into three major business segments, which are defined primarily based on the products and services provided or the type of customer served: Credit Card, Consumer Banking and Commercial Banking. The operations of acquired businesses have been integrated into our existing business segments. Certain activities that are not part of a segment, such as management of our corporate investment portfolio, asset/liability management by our centralized Corporate Treasury group and residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments, are included in the Other category.

- *Credit Card*: Consists of our domestic consumer and small business card lending, and international card businesses in Canada and the United Kingdom.
- *Consumer Banking*: Consists of our branch-based deposit gathering and lending activities for consumers and small businesses, national deposit gathering and national auto lending.
- *Commercial Banking*: Consists of our lending, deposit gathering, capital markets and treasury management services to commercial real estate and commercial and industrial customers. Our commercial and industrial customers typically include companies with annual revenues between \$20 million and \$2 billion.
- *Other category*: Includes the residual impact of the allocation of our centralized Corporate Treasury group activities, such as management of our corporate investment portfolio and asset/liability management, to our business segments. Accordingly, net gains and losses on our investment securities portfolio and certain trading activities are included in the Other category. Other category also includes foreign exchange-rate fluctuations on foreign currency-denominated transactions; unallocated corporate expenses that do not directly support the operations of the business segments or for which the business segments are not considered financially accountable in evaluating their performance, such as certain restructuring charges; certain material items that are non-recurring in nature; offsets related to certain line-item reclassifications; and residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments.

Basis of Presentation

We report the results of each of our business segments on a continuing operations basis. The results of our individual businesses reflect the manner in which management evaluates performance and makes decisions about funding our operations and allocating resources.

Business Segment Reporting Methodology

The results of our business segments are intended to present each segment as if it were a stand-alone business. Our internal management and reporting process used to derive our segment results employs various allocation methodologies, including funds transfer pricing, to assign certain balance sheet assets, deposits and other liabilities and their related revenue and expenses directly or indirectly attributable to each business segment. Our funds transfer pricing process provides a funds credit for sources of funds, such as deposits generated by our Consumer Banking and Commercial Banking businesses, and a funds charge for the use of funds by each segment. Due to the integrated nature of our business segments, estimates and judgments have been made in allocating certain revenue and expense items. Transactions between segments are based on specific criteria or approximate third-party rates. We regularly assess the assumptions, methodologies and reporting classifications used for segment reporting, which may result in the implementation of refinements or changes in future periods.

The following is additional information on the principles and methodologies used in preparing our business segment results.

- *Net interest income*: Interest income from loans held for investment and interest expense from deposits and other interest-bearing liabilities are reflected within each applicable business segment. Because funding and asset/liability management are managed centrally by our Corporate Treasury group, net interest income for our business segments also includes the results of a funds transfer pricing process that is intended to allocate a cost of funds used or credit for funds provided to all business segment assets and liabilities, respectively, using a matched funding concept. The taxable-equivalent benefit of tax-exempt products is also allocated to each business unit with a corresponding increase in income tax expense.

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- *Non-interest income:* Non-interest fees and other revenue associated with loans or customers managed by each business segment and other direct revenues are accounted for within each business segment.
- *Provision for credit losses:* The provision for credit losses is directly attributable to the business segment in accordance with the loans each business segment manages.
- *Non-interest expense:* Non-interest expenses directly managed and incurred by a business segment are accounted for within each business segment. We allocate certain non-interest expenses indirectly incurred by business segments, such as corporate support functions, to each business segment based on various factors, including the actual cost of the services from the service providers, the utilization of the services, the number of employees or other relevant factors.
- *Goodwill and intangible assets:* Goodwill and intangible assets that are not directly attributable to business segments are assigned to business segments based on the relative fair value of each segment. Intangible amortization is included in the results of the applicable segment.
- *Income taxes:* Income taxes are assessed for each business segment based on a standard tax rate with the residual tax expense or benefit to arrive at the consolidated effective tax rate included in the Other category.
- *Loans held for investment:* Loans are reported within each business segment based on product or customer type served by that business segment.
- *Deposits:* Deposits are reported within each business segment based on product or customer type served by that business segment.

Segment Results and Reconciliation

We may periodically change our business segments or reclassify business segment results based on modifications to our management reporting methodologies or changes in organizational alignment. In the first quarter of 2018, we made a change in how revenue is measured in our Commercial Banking business to include the tax benefits of losses on certain tax-advantaged investments. These tax benefits are included in revenue on a taxable-equivalent basis within our Commercial Banking business, with an offsetting reduction in the Other category. This change in measurement of our Commercial Banking revenue did not have any impact to the consolidated financial statements.

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The following tables present our business segment results for the years ended December 31, 2018, 2017 and 2016, selected balance sheet data as of December 31, 2018, 2017 and 2016, and a reconciliation of our total business segment results to our reported consolidated income from continuing operations, loans held for investment and deposits.

Table 18.1: Segment Results and Reconciliation

<i>(Dollars in millions)</i>	Year Ended December 31, 2018				
	Credit Card	Consumer Banking	Commercial Banking ⁽¹⁾⁽²⁾	Other ⁽¹⁾⁽²⁾⁽³⁾	Consolidated Total
Net interest income	\$ 14,167	\$ 6,549	\$ 2,152	\$ 7	\$ 22,875
Non-interest income	3,520	663	744	274	5,201
Total net revenue	17,687	7,212	2,896	281	28,076
Provision (benefit) for credit losses	4,984	838	83	(49)	5,856
Non-interest expense	8,542	4,027	1,654	679	14,902
Income (loss) from continuing operations before income taxes	4,161	2,347	1,159	(349)	7,318
Income tax provision (benefit)	970	547	270	(494)	1,293
Income from continuing operations, net of tax	\$ 3,191	\$ 1,800	\$ 889	\$ 145	\$ 6,025
Loans held for investment	\$ 116,361	\$ 59,205	\$ 70,333	\$ 0	\$ 245,899
Deposits	0	198,607	29,480	21,677	249,764

<i>(Dollars in millions)</i>	Year Ended December 31, 2017				
	Credit Card	Consumer Banking	Commercial Banking ⁽¹⁾	Other ⁽¹⁾	Consolidated Total
Net interest income	\$ 13,648	\$ 6,380	\$ 2,261	\$ 171	\$ 22,460
Non-interest income	3,325	749	708	(5)	4,777
Total net revenue	16,973	7,129	2,969	166	27,237
Provision for credit losses	6,066	1,180	301	4	7,551
Non-interest expense	7,916	4,233	1,603	442	14,194
Income (loss) from continuing operations before income taxes	2,991	1,716	1,065	(280)	5,492
Income tax provision	1,071	626	389	1,289	3,375
Income (loss) from continuing operations, net of tax	\$ 1,920	\$ 1,090	\$ 676	\$ (1,569)	\$ 2,117
Loans held for investment	\$ 114,762	\$ 75,078	\$ 64,575	\$ 58	\$ 254,473
Deposits	0	185,842	33,938	23,922	243,702

<i>(Dollars in millions)</i>	Year Ended December 31, 2016				
	Credit Card	Consumer Banking	Commercial Banking ⁽¹⁾	Other ⁽¹⁾	Consolidated Total
Net interest income	\$ 12,635	\$ 5,829	\$ 2,216	\$ 193	\$ 20,873
Non-interest income	3,380	733	578	(63)	4,628
Total net revenue	16,015	6,562	2,794	130	25,501
Provision (benefit) for credit losses	4,926	1,055	483	(5)	6,459
Non-interest expense	7,703	4,139	1,407	309	13,558
Income (loss) from continuing operations before income taxes	3,386	1,368	904	(174)	5,484
Income tax provision (benefit)	1,226	498	329	(339)	1,714
Income from continuing operations, net of tax	\$ 2,160	\$ 870	\$ 575	\$ 165	\$ 3,770
Loans held for investment	\$ 105,552	\$ 73,054	\$ 66,916	\$ 64	\$ 245,586
Deposits	0	181,917	33,866	20,985	236,768

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- ⁽¹⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate (21% for 2018 and 35% for 2017 and 2016) and state taxes where applicable, with offsetting reductions to the Other category.
- ⁽²⁾ In 2018, we made a change in how revenue is measured in our Commercial Banking business to include the tax benefits of losses on certain tax-advantaged investments. These tax benefits are included in revenue on a taxable-equivalent basis within our Commercial Banking business, with an offsetting reduction to the Other category. In addition, all revenue presented on a taxable-equivalent basis in our Commercial Banking business was impacted by the reduction of the federal tax rate set forth in the Tax Act. The net impact of the measurement change and the reduction of the federal tax rate was a decrease of \$126 million in revenue in our Commercial Banking business for the year ended December 31, 2018, with an offsetting impact to the Other category.
- ⁽³⁾ In 2018, we sold all of our consumer home loan portfolio and recognized a gain of approximately \$499 million in the Other category, including a benefit for credit losses of \$46 million.

Revenue from Contracts with Customers

In 2018, we adopted ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606) under the modified retrospective transition method. The majority of our revenue from contracts with customers consists of interchange fees in our Credit Card business, service charges and other customer-related fees, and other contract revenue in our Consumer Banking and Commercial Banking businesses.

Interchange fees are primarily from our Credit Card business and are recognized upon settlement with the interchange networks, net of rewards earned by customers. Service charges and other customer-related fees within our Consumer Banking business are primarily related to fees earned on consumer deposit accounts for account maintenance and various transaction-based services such as overdrafts and ATM usage. Service charges and other customer-related fees within our Commercial Banking business are mostly related to fees earned on treasury management and capital markets services. Other contract revenue consists primarily of revenue earned on certain marketing and promotional events from our auto dealers within our Consumer Banking business. Revenue from contracts with customers is included in non-interest income in our consolidated statements of income.

The following table presents revenue from contracts with customers and a reconciliation to non-interest income by business segment for the year ended December 31, 2018.

Table 18.2: Revenue from Contracts with Customers and Reconciliation to Segments Results

<i>(Dollars in millions)</i>	Year Ended December 31, 2018				
	Credit Card	Consumer Banking	Commercial Banking ⁽¹⁾	Other ⁽¹⁾	Consolidated Total
Contract revenue:					
Interchange fees, net ⁽²⁾	\$ 2,609	\$ 185	\$ 33	\$ (4)	\$ 2,823
Service charges and other customer-related fees	0	367	123	(1)	489
Other	8	109	2	0	119
Total contract revenue	2,617	661	158	(5)	3,431
Revenue from other sources	903	2	586	279	1,770
Total non-interest income	\$ 3,520	\$ 663	\$ 744	\$ 274	\$ 5,201

- ⁽¹⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate of 21% and state taxes where applicable, with offsetting reclassifications to the Other category.
- ⁽²⁾ Interchange fees are presented net of customer reward expenses of \$4.4 billion for the year ended December 31, 2018.

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NOTE 19—COMMITMENTS, CONTINGENCIES, GUARANTEES AND OTHERS

Commitments to Lend

Our unfunded lending commitments primarily consist of credit card lines, loan commitments to customers of both our Commercial Banking and Consumer Banking businesses, as well as standby and commercial letters of credit. These commitments, other than credit card lines, are legally binding conditional agreements that have fixed expirations or termination dates and specified interest rates and purposes. The contractual amount of these commitments represents the maximum possible credit risk to us should the counterparty draw upon the commitment. We generally manage the potential risk of unfunded lending commitments by limiting the total amount of arrangements, monitoring the size and maturity structure of these portfolios, and applying the same credit standards for all of our credit activities.

For unused credit card lines, we have not experienced and do not anticipate that all of our customers will access their entire available line at any given point in time. Commitments to extend credit other than credit card lines generally require customers to maintain certain credit standards. Collateral requirements and loan-to-value (“LTV”) ratios are the same as those for funded transactions and are established based on management’s credit assessment of the customer. These commitments may expire without being drawn upon; therefore, the total commitment amount does not necessarily represent future funding requirements.

We also issue letters of credit, such as financial standby, performance standby and commercial letters of credit, to meet the financing needs of our customers. Standby letters of credit are conditional commitments issued by us to guarantee the performance of a customer to a third party in a borrowing arrangement. Commercial letters of credit are short-term commitments issued primarily to facilitate trade finance activities for customers and are generally collateralized by the goods being shipped to the client. These collateral requirements are similar to those for funded transactions and are established based on management’s credit assessment of the customer. Management conducts regular reviews of all outstanding letters of credit and the results of these reviews are considered in assessing the adequacy of reserves for unfunded lending commitments.

The following table presents the contractual amount and carrying value of our unfunded lending commitments as of December 31, 2018 and 2017. The carrying value represents our reserve and deferred revenue on legally binding commitments.

Table 19.1: Unfunded Lending Commitments: Contractual Amount and Carrying Value

	Contractual Amount		Carrying Value	
	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017
<i>(Dollars in millions)</i>				
Credit card lines	\$ 346,186	\$ 351,481	N/A	N/A
Other loan commitments ⁽¹⁾	34,449	31,840	\$ 95	\$ 84
Standby letters of credit and commercial letters of credit ⁽²⁾	1,792	2,046	29	43
Total unfunded lending commitments	<u>\$ 382,427</u>	<u>\$ 385,367</u>	<u>\$ 124</u>	<u>\$ 127</u>

⁽¹⁾ Includes \$1.3 billion and \$1.0 billion of advised lines of credit as of December 31, 2018 and 2017, respectively.

⁽²⁾ These financial guarantees have expiration dates ranging from 2019 to 2025 as of December 31, 2018.

Loss Sharing Agreements and Other Obligations

Within our Commercial Banking business, we originate multifamily commercial real estate loans with the intent to sell them to the GSEs. We enter into loss sharing agreements with the GSEs upon the sale of the loans. At inception, we record a liability representing the fair value of our obligation which is subsequently amortized as we are released from risk of payment under the loss sharing agreement. If payment under the loss sharing agreement becomes probable and estimable, an additional liability may be recorded on the consolidated balance sheets and a non-interest expense may be recognized in the consolidated statements of income. The liability recognized on our consolidated balance sheets for our loss sharing agreements was \$59 million and \$60 million as of December 31, 2018 and 2017, respectively.

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U.K. Payment Protection Insurance

In the U.K., we previously sold payment protection insurance (“PPI”). In response to an elevated level of customer complaints across the industry, heightened media coverage and pressure from consumer advocacy groups, the U.K. Financial Conduct Authority (“FCA”), formerly the Financial Services Authority, investigated and raised concerns about the way the industry has handled complaints related to the sale of these insurance policies. For the past several years, the U.K.’s Financial Ombudsman Service (“FOS”) has been adjudicating customer complaints relating to PPI, escalated to it by consumers who disagree with the rejection of their complaint by firms, leading to customer remediation payments by us and others within the industry. On March 2, 2017, the FCA issued a statement that sets out final rules and guidance on the PPI complaints deadline, which has been set as August 29, 2019. The statement also provides clarity on how to handle PPI complaints under s.140A of the Consumer Credit Act, including guidance on how redress for such complaints should be calculated. The final rules and guidance came into force on August 29, 2017.

In determining our best estimate of incurred losses for future remediation payments, management considers numerous factors, including (i) the number of customer complaints we expect in the future; (ii) our expectation of upholding those complaints; (iii) the expected number of complaints customers escalate to the FOS; (iv) our expectation of the FOS upholding such escalated complaints; (v) the number of complaints that fall under s.140A of the Consumer Credit Act; (vi) the number of litigation claims being pursued under s.140A of the Consumer Credit Act; and (vii) the estimated remediation payout to customers. We monitor these factors each quarter and adjust our reserves to reflect the latest data.

Management’s best estimate of incurred losses related to U.K. PPI totaled \$133 million and \$249 million as of December 31, 2018 and 2017, respectively. In 2018, we recognized additional charges of \$99 million to reflect greater than expected complaint volumes. Other movements to the reserve were a combination of utilization of the reserve through customer refund payments and foreign exchange movements. Our best estimate of reasonably possible future losses beyond our reserve as of December 31, 2018 is approximately \$100 million.

Litigation

In accordance with the current accounting standards for loss contingencies, we establish reserves for litigation related matters that arise from the ordinary course of our business activities when it is probable that a loss associated with a claim or proceeding has been incurred and the amount of the loss can be reasonably estimated. None of the amounts we currently have recorded individually or in the aggregate are considered to be material to our financial condition. Litigation claims and proceedings of all types are subject to many uncertain factors that generally cannot be predicted with assurance. Below we provide a description of potentially material legal proceedings and claims.

For some of the matters disclosed below, we are able to estimate reasonably possible losses above existing reserves, and for other disclosed matters, such an estimate is not possible at this time. For those matters below where an estimate is possible, management currently estimates the reasonably possible future losses beyond our reserves as of December 31, 2018 are approximately \$1.1 billion. Our reserve and reasonably possible loss estimates involve considerable judgment and reflect that there is still significant uncertainty regarding numerous factors that may impact the ultimate loss levels. Notwithstanding our attempt to estimate a reasonably possible range of loss beyond our current accrual levels for some litigation matters based on current information, it is possible that actual future losses will exceed both the current accrual level and the range of reasonably possible losses disclosed here. Given the inherent uncertainties involved in these matters, especially those involving governmental agencies, and the very large or indeterminate damages sought in some of these matters, there is significant uncertainty as to the ultimate liability we may incur from these litigation matters and an adverse outcome in one or more of these matters could be material to our results of operations or cash flows for any particular reporting period.

Interchange

In 2005, a putative class of retail merchants filed antitrust lawsuits against MasterCard and Visa and several issuing banks, including Capital One, seeking both injunctive relief and monetary damages for an alleged conspiracy by defendants to fix the level of interchange fees. Other merchants have asserted similar claims in separate lawsuits, and while these separate cases did not name any issuing banks, Visa, MasterCard and issuers, including Capital One, have entered settlement and judgment sharing agreements allocating the liabilities of any judgment or settlement arising from all interchange-related cases.

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The lawsuits were consolidated before the U.S. District Court for the Eastern District of New York for certain purposes and were settled in 2012. The class settlement, however, was invalidated by the United States Court of Appeals for the Second Circuit in June 2016, and the suit was separated into separate class actions seeking injunctive and monetary relief, respectively. In addition, numerous merchant groups opted out of the 2012 settlement and have pursued their own claims. The claims by the injunctive relief class have not been resolved, but the parties reached a new settlement agreement with the monetary damages class in August 2018, whereby the class would receive up to approximately \$6.2 billion collectively from the defendants in exchange for a release of their claims, depending on the percentage of class plaintiffs who opt out. The trial court preliminarily approved the settlement in January 2019. Visa and MasterCard have also settled several of the opt-out cases, which required non-material payments from issuing banks, including Capital One. Visa created a litigation escrow account following its IPO of stock in 2008 that funds settlements for its member banks, and any settlements related to MasterCard-allocated losses have either already been paid or are reflected in Capital One's reserves.

Mortgage Representation and Warranty

We face residual exposure related to subsidiaries that originated residential mortgage loans and sold these loans to various purchasers, including purchasers who created securitization trusts. In connection with their sales of mortgage loans, these subsidiaries entered into agreements containing varying representations and warranties about, among other things, the ownership of the loan, the validity of the lien securing the loan, the loan's compliance with any applicable criteria established by the purchaser, including underwriting guidelines and the existence of mortgage insurance, and the loan's compliance with applicable federal, state and local laws. Each of these subsidiaries may be required to repurchase mortgage loans or indemnify certain purchasers and others against losses they incur in the event of certain breaches of these representations and warranties.

The substantial majority of our representation and warranty exposure has been resolved through litigation, and our remaining representation and warranty exposure is almost entirely litigation-related. Accordingly, we establish litigation reserves for representation and warranty losses that we consider to be both probable and reasonably estimable. The reserve process relies heavily on estimates, which are inherently uncertain, and requires the application of judgment. Our reserves and estimates of reasonably possible losses could be impacted by claims which may be brought by securitization trustees and sponsors, bond-insurers, investors, and GSEs, as well as claims brought by governmental agencies under the Financial Institutions Reform, Recovery and Enforcement Act ("FIRREA"), the False Claims Act or other federal or state statutes.

In May, June and July 2012, the Federal Housing Finance Agency ("FHFA") (acting as conservator for Freddie Mac) filed three summonses with notice in the New York state court against GreenPoint, on behalf of the trustees for three RMBS trusts backed by loans originated by GreenPoint with an aggregate original principal balance of \$3.4 billion. In January 2013, the plaintiffs filed an amended consolidated complaint in the name of the three trusts, acting by the respective trustees, alleging breaches of contractual representations and warranties regarding compliance with GreenPoint underwriting guidelines relating to certain loans ("FHFA Litigation"). Plaintiffs seek specific performance of the repurchase obligations with respect to the loans for which they have provided notice of alleged breaches as well as all other allegedly breaching loans, rescissory damages, indemnification, costs and interest. On March 29, 2017, the trial court granted GreenPoint's motion for summary judgment and dismissed plaintiff's claims as untimely. The plaintiff appealed to the Second Circuit, which affirmed the dismissal on February 6, 2019.

Anti-Money Laundering

Capital One is subject to an open consent order with the Office of the Comptroller of the Currency ("OCC") dated July 10, 2015 relating to our anti-money laundering ("AML") program. In October 2018, Capital One paid a civil monetary penalty of \$100 million to resolve the monetary component of the AML consent order.

Capital One continues to be investigated by the New York District Attorney's Office ("NYDA"), the Department of Justice ("DOJ") and the Financial Crimes Enforcement Network ("FinCEN") of the U.S. Department of Treasury primarily with respect to certain former check casher clients of the Commercial Banking business and Capital One's AML program. Capital One is cooperating with all agencies involved in the investigation. We are in discussions with FinCEN to explore a potential regulatory resolution of its investigation, which could include a monetary penalty.

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Other Pending and Threatened Litigation

In addition, we are commonly subject to various pending and threatened legal actions relating to the conduct of our normal business activities. In the opinion of management, the ultimate aggregate liability, if any, arising out of all such other pending or threatened legal actions, is not expected to be material to our consolidated financial position or our results of operations.

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NOTE 20—CAPITAL ONE FINANCIAL CORPORATION (PARENT COMPANY ONLY)

Financial Information

The following parent company only financial statements are prepared in accordance with Regulation S-X of the U.S. Securities and Exchange Commission (“SEC”).

Table 20.1: Parent Company Statements of Income

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Interest income	\$ 313	\$ 178	\$ 120
Interest expense	720	381	258
Dividends from subsidiaries	2,750	300	3,936
Non-interest income (loss)	19	19	(13)
Non-interest expense	29	34	48
Income before income taxes and equity in undistributed earnings of subsidiaries	2,333	82	3,737
Income tax benefit	(128)	(103)	(79)
Equity in undistributed earnings of subsidiaries	3,554	1,797	(65)
Net income	6,015	1,982	3,751
Other comprehensive income (loss), net of tax	(136)	23	(333)
Comprehensive income	\$ 5,879	\$ 2,005	\$ 3,418

Table 20.2: Parent Company Balance Sheets

<i>(Dollars in millions)</i>	December 31,	
	2018	2017
Assets:		
Cash and cash equivalents	\$ 10,286	\$ 8,196
Investments in subsidiaries	58,154	54,712
Loans to subsidiaries	2,603	548
Securities available for sale	795	907
Other assets	1,250	729
Total assets	\$ 73,088	\$ 65,092
Liabilities:		
Senior and subordinated notes	\$ 19,518	\$ 14,392
Borrowings from subsidiaries	1,671	1,633
Accrued expenses and other liabilities	231	337
Total liabilities	21,420	16,362
Total stockholders' equity	51,668	48,730
Total liabilities and stockholders' equity	\$ 73,088	\$ 65,092

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Table 20.3: Parent Company Statements of Cash Flows

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2018	2017	2016
Operating activities:			
Net income	\$ 6,015	\$ 1,982	\$ 3,751
Adjustments to reconcile net income to net cash from operating activities:			
Equity in undistributed earnings of subsidiaries	(3,554)	(1,797)	65
Other operating activities	(35)	327	(10)
Net cash from operating activities	2,426	512	3,806
Investing activities:			
Net payments to subsidiaries	(577)	(4,956)	(163)
Proceeds from paydowns and maturities of securities available for sale	140	130	71
Changes in loans to subsidiaries	(2,055)	44	(71)
Net cash from investing activities	(2,492)	(4,782)	(163)
Financing activities:			
Borrowings:			
Changes in borrowings from subsidiaries	38	23	19
Issuance of senior and subordinated notes	5,227	6,948	1,487
Proceeds from paydowns and maturities of senior and subordinated notes	0	(804)	(1,750)
Common stock:			
Net proceeds from issuances	175	164	131
Dividends paid	(773)	(780)	(812)
Preferred stock:			
Net proceeds from issuances	0	0	1,066
Dividends paid	(265)	(265)	(214)
Purchases of treasury stock	(2,284)	(240)	(3,661)
Proceeds from share-based payment activities	38	124	142
Net cash from financing activities	2,156	5,170	(3,592)
Changes in cash and cash equivalents	2,090	900	51
Cash and cash equivalents, beginning of the period	8,196	7,296	7,245
Cash and cash equivalents, end of the period	\$ 10,286	\$ 8,196	\$ 7,296

CAPITAL ONE FINANCIAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 21—RELATED PARTY TRANSACTIONS

In the ordinary course of business, we may have loans issued to our executive officers, directors and principal stockholders. Pursuant to our policy, such loans are issued on the same terms as those prevailing at the time for comparable loans to unrelated persons and do not involve more than the normal risk of collectability.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Overview

We are required under applicable laws and regulations to maintain controls and procedures, which include disclosure controls and procedures as well as internal control over financial reporting, as further described below.

(a) Disclosure Controls and Procedures

Disclosure controls and procedures refer to controls and other procedures designed to provide reasonable assurance that information required to be disclosed in our financial reports is recorded, processed, summarized and reported within the time periods specified by the U.S. Securities and Exchange Commission ("SEC") rules and forms and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding our required disclosure. In designing and evaluating our disclosure controls and procedures, we recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and we must apply judgment in evaluating and implementing possible controls and procedures.

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15 of the Securities Exchange Act of 1934 (the "Exchange Act"), our management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our disclosure controls and procedures (as that term is defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) as of December 31, 2018, the end of the period covered by this Annual Report on Form 10-K. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2018, at a reasonable level of assurance, in recording, processing, summarizing and reporting information required to be disclosed within the time periods specified by the SEC rules and forms.

(b) Changes in Internal Control Over Financial Reporting

We regularly review our disclosure controls and procedures and make changes intended to ensure the quality of our financial reporting. There were no changes in internal control over financial reporting that occurred in the fourth quarter of 2018 that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

(c) Management's Report on Internal Control Over Financial Reporting

Management's Report on Internal Control Over Financial Reporting is included in "PART II—Item 8. Financial Statements and Supplementary Data" and is incorporated herein by reference. The Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting also is included in "PART II—Item 8. Financial Statements and Supplementary Data" and incorporated herein by reference.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by Item 10 will be included in our Proxy Statement for the 2019 Annual Stockholder Meeting (“Proxy Statement”) under the headings “Corporate Governance at Capital One” and “Section 16(a) Beneficial Ownership Reporting Compliance,” and is incorporated herein by reference. The Proxy Statement will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days of the end of our 2018 fiscal year.

Item 11. Executive Compensation

The information required by Item 11 will be included in the Proxy Statement under the headings “Director Compensation,” “Compensation Discussion and Analysis,” “Named Executive Officer Compensation,” “Compensation Committee Interlocks and Insider Participation” and “Compensation Committee Report,” and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by Item 12 will be included in the Proxy Statement under the headings “Security Ownership” and “Equity Compensation Plans,” and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions and Director Independence

The information required by Item 13 will be included in the Proxy Statement under the headings “Related Person Transactions” and “Director Independence,” and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information required by Item 14 will be included in the Proxy Statement under the heading “Ratification of Selection of Independent Registered Public Accounting Firm,” and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) Financial Statement Schedules

The following documents are filed as part of this Annual Report in Part II, Item 8 and are incorporated herein by reference.

(1) Management's Report on Internal Control Over Financial Reporting

Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting

Report of Independent Registered Public Accounting Firm on the Consolidated Financial Statements

Consolidated Financial Statements:

Consolidated Statements of Income for the years ended December 31, 2018, 2017 and 2016

Consolidated Statements of Comprehensive Income for the years ended December 31, 2018, 2017 and 2016

Consolidated Balance Sheets as of December 31, 2018 and 2017

Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2018, 2017 and 2016

Consolidated Statements of Cash Flows for the years ended December 31, 2018, 2017 and 2016

Notes to Consolidated Financial Statements

(2) Schedules

None.

(b) Exhibits

An index to exhibits has been filed as part of this Report and is incorporated herein by reference.

Item 16. Form 10-K Summary

Not applicable.

CAPITAL ONE FINANCIAL CORPORATION
ANNUAL REPORT ON FORM 10-K
DATED DECEMBER 31, 2018
Commission File No. 001-13300

The following exhibits are incorporated by reference or filed herewith. References to (i) the “2002 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2002, filed on March 17, 2003; (ii) the “2003 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2003, filed on March 5, 2004; (iii) the “2010 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2010, filed on March 1, 2011, as amended on March 7, 2011; (iv) the “2011 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2011, filed on February 28, 2012; (v) the “2012 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2012, filed on February 28, 2013; (vi) the “2013 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2013, filed on February 27, 2014; (vii) the “2014 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2014, filed on February 24, 2015; (viii) the “2015 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2015, filed on February 25, 2016; (ix) the “2016 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2016, filed on February 23, 2017; and (x) the “2017 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2017, filed on February 21, 2018.

Exhibit No.	Description
3.1	Restated Certificate of Incorporation of Capital One Financial Corporation (as restated April 30, 2015) (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on May 4, 2015).
3.2	Amended and Restated Bylaws of Capital One Financial Corporation, dated October 5, 2015 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on October 5, 2015).
3.3.1	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series B, dated August 16, 2012 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on August 20, 2012).
3.3.2	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series C, dated June 11, 2014 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on June 12, 2014).
3.3.3	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series D, dated October 29, 2014 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on October 31, 2014).
3.3.4	Certificate of Designations of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series E, dated May 12, 2015 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on May 14, 2015).
3.3.5	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series F, dated August 20, 2015 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on August 24, 2015).
3.3.6	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series G, dated July 28, 2016 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on July 29, 2016).
3.3.7	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series H, dated November 28, 2016 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on November 29, 2016).
4.1.1	Specimen certificate representing the common stock of Capital One Financial Corporation (incorporated by reference to Exhibit 4.1 of the 2003 Form 10-K).
4.1.2	Warrant Agreement, dated December 3, 2009, between Capital One Financial Corporation and Computershare Trust Company, N.A. (incorporated by reference to the Exhibit 4.1 of the Form 8-A, filed on December 4, 2009).
4.1.3	Deposit Agreement, dated August 20, 2012 (incorporated by reference to Exhibit 4.1 of the Current Report on Form 8-K, filed on August 20, 2012).
4.2	Pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K, copies of instruments defining the rights of holders of long-term debt are not filed. The Company agrees to furnish a copy thereof to the SEC upon request.
10.1.1+	Second Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to the Proxy Statement on Definitive Schedule 14A, filed on March 13, 2009).
10.1.2+	Third Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to the Proxy Statement on Definitive Schedule 14A, filed on March 18, 2014).
10.1.3+	Fourth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.1.4 of the 2017 Form 10-K).
10.2.1+	Form of Nonstatutory Stock Option Award Agreement granted to our executive officers, including the Chief Executive Officer, under the Second Amended and Restated 2004 Stock Incentive Plan on January 26, 2011 (incorporated by reference to Exhibit 10.18 of the 2010 Form 10-K).

Exhibit No.	Description
10.2.2+	Form of Nonstatutory Stock Option Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Second Amended and Restated 2004 Stock Incentive Plan on January 31, 2012 (incorporated by reference to Exhibit 10.2.10 of the 2011 Form 10-K).
10.2.3+	Form of Performance Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Second Amended and Restated 2004 Stock Incentive Plan on January 31, 2012 (incorporated by reference to Exhibit 10.2.11 of the 2011 Form 10-K).
10.2.4+	Form of Nonstatutory Stock Option Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Second Amended and Restated 2004 Stock Incentive Plan on January 31, 2013 (incorporated by reference to Exhibit 10.2.14 of the 2012 Form 10-K).
10.2.5+	Form of Performance Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Second Amended and Restated 2004 Stock Incentive Plan on January 31, 2013 (incorporated by reference to Exhibit 10.2.15 of the 2012 Form 10-K).
10.2.6+	Form of Nonstatutory Stock Option Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Second Amended and Restated 2004 Stock Incentive Plan on January 30, 2014 (incorporated by reference to Exhibit 10.2.15 of the 2013 Form 10-K).
10.2.7+	Form of Performance Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Second Amended and Restated 2004 Stock Incentive Plan on January 30, 2014 (incorporated by reference to Exhibit 10.2.16 of the 2013 Form 10-K).
10.2.8+	Form of Restricted Stock Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Second Amended and Restated 2004 Stock Incentive Plan on January 30, 2014 (incorporated by reference to Exhibit 10.2.17 of the 2013 Form 10-K).
10.2.9+	Form of Nonstatutory Stock Option Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Third Amended and Restated 2004 Stock Incentive Plan on January 29, 2015 (incorporated by reference to Exhibit 10.2.14 of the 2014 Form 10-K).
10.2.10+	Form of Performance Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Third Amended and Restated 2004 Stock Incentive Plan on January 29, 2015 (incorporated by reference to Exhibit 10.2.15 of the 2014 Form 10-K).
10.2.11+	Form of Restricted Stock Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Third Amended and Restated 2004 Stock Incentive Plan on January 29, 2015 (incorporated by reference to Exhibit 10.2.16 of the 2014 Form 10-K).
10.2.12+	Form of Nonstatutory Stock Option Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Third Amended and Restated 2004 Stock Incentive Plan on February 4, 2016 (incorporated by reference to Exhibit 10.2.17 of the 2015 Form 10-K).
10.2.13+	Form of Performance Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Third Amended and Restated 2004 Stock Incentive Plan on February 4, 2016 (incorporated by reference to Exhibit 10.2.18 of the 2015 Form 10-K).
10.2.14+	Form of Restricted Stock Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Third Amended and Restated 2004 Stock Incentive Plan on February 4, 2016 (incorporated by reference to Exhibit 10.2.19 of the 2015 Form 10-K).
10.2.15+	Restricted Stock Unit Award Agreement granted to R. Scott Blackley under the Third Amended and Restated 2004 Stock Incentive Plan, dated May 9, 2016 (incorporated by reference to Exhibit 10.2 of the Quarterly Report on Form 10-Q for the period ended June 30, 2016).
10.2.16+	Form of Nonstatutory Stock Option Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Third Amended and Restated 2004 Stock Incentive Plan on February 2, 2017 (incorporated by reference to Exhibit 10.2.19 of the 2016 Form 10-K).
10.2.17+	Form of Performance Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Third Amended and Restated 2004 Stock Incentive Plan on February 2, 2017 (incorporated by reference to Exhibit 10.2.20 of the 2016 Form 10-K).
10.2.18+	Form of Restricted Stock Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Third Amended and Restated 2004 Stock Incentive Plan on February 2, 2017 (incorporated by reference to Exhibit 10.2.21 of the 2016 Form 10-K).
10.2.19+	Form of Performance Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Fourth Amended and Restated 2004 Stock Incentive Plan on February 1, 2018 (incorporated by reference to Exhibit 10.2.22 of the 2017 Form 10-K).
10.2.20+	Form of Restricted Stock Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Fourth Amended and Restated 2004 Stock Incentive Plan on February 1, 2018 (incorporated by reference to Exhibit 10.2.23 of the 2017 Form 10-K).
10.2.21+*	Form of Performance Unit Award Agreements granted to our executive officers under the Fourth Amended and Restated 2004 Stock Incentive Plan on January 31, 2019.

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Exhibit No.	Description
10.2.22+*	Form of Restricted Stock Unit Award Agreements granted to our executive officers, including the Chief Executive Officer, under the Fourth Amended and Restated 2004 Stock Incentive Plan on January 31, 2019.
10.3.1+	Capital One Financial Corporation 1999 Non-Employee Directors Stock Incentive Plan, as amended (incorporated by reference to Exhibit 10.4 of the 2002 Form 10-K).
10.3.2+	Form of 1999 Non-Employee Directors Stock Incentive Plan Deferred Share Units Award Agreement between Capital One Financial Corporation and certain of its Directors (incorporated by reference to Exhibit 10.3 of the Quarterly Report on Form 10-Q for the period ended September 30, 2004).
10.3.3+	Form of Restricted Stock Unit Award Agreement granted to our directors under the Second Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.3.4 of the 2011 Form 10-K).
10.3.4+	Form of Stock Option Award Agreement granted to our directors under the Second Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.3.5 of the 2011 Form 10-K).
10.3.5+	Form of Restricted Stock Unit Award Agreement granted to our directors under the Fourth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Quarterly Report on Form 10-Q for the period ended June 30, 2018).
10.4.1+	Amended and Restated Capital One Financial Corporation Executive Severance Plan (incorporated by reference to Exhibit 10.4 of the 2011 Form 10-K).
10.4.2+	Amended and Restated Capital One Financial Corporation Executive Severance Plan (incorporated by reference to Exhibit 10.1 of the Quarterly Report on Form 10-Q for the period ended September 30, 2015).
10.5+	Capital One Financial Corporation Non-Employee Directors Deferred Compensation Plan (incorporated by reference to Exhibit 10.5 of the 2011 Form 10-K).
10.6.1+	Amended and Restated Capital One Financial Corporation Voluntary Non-Qualified Deferred Compensation Plan (incorporated by reference to Exhibit 10.6 of the 2011 Form 10-K).
10.6.2+	First Amendment to the Amended and Restated Capital One Financial Corporation Voluntary Non-Qualified Deferred Compensation Plan (incorporated by reference to Exhibit 10.6.2 of the 2012 Form 10-K).
10.7.1+	Form of Change of Control Employment Agreement between Capital One Financial Corporation and each of its named executive officers, other than the Chief Executive Officer (incorporated by reference to Exhibit 10.8.2 of the 2011 Form 10-K).
10.7.2+	Form of 2011 Change of Control Employment Agreement between Capital One Financial Corporation and certain executive officers (incorporated by reference to Exhibit 10.8.3 of the 2012 Form 10-K).
10.7.3+	Change of Control Employment Agreement between Capital One Financial Corporation and Richard D. Fairbank (incorporated by reference to Exhibit 10.7.3 of the 2013 Form 10-K).
10.8.1+	Form of Non-Competition Agreement between Capital One Financial Corporation and certain named executive officers (incorporated by reference to Exhibit 10.9 of the 2012 Form 10-K).
10.8.2+	Non-Competition Agreement between Capital One Financial Corporation and R. Scott Blackley, as amended on July 1, 2017 (incorporated by reference to Exhibit 10.1.1 of the Quarterly Report on Form 10-Q for the period ended March 31, 2017).
10.8.3+	Non-Competition Agreement between Capital One Financial Corporation and Noelle K. Eder (incorporated by reference to Exhibit 10.1.2 of the Quarterly Report on Form 10-Q for the period ended March 31, 2017).
10.8.4+	Non-Competition Agreement between Capital One Financial Corporation and Michael J. Wassmer (incorporated by reference to Exhibit 10.1.3 of the Quarterly Report on Form 10-Q for the period ended March 31, 2017).
21*	Subsidiaries of the Company.
23*	Consent of Ernst & Young LLP.
31.1*	Certification of Richard D. Fairbank.
31.2*	Certification of R. Scott Blackley.
32.1**	Certification of Richard D. Fairbank.
32.2**	Certification of R. Scott Blackley.
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH*	XBRL Taxonomy Extension Schema Document.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.

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+Represents a management contract or compensatory plan or arrangement.

* Indicates a document being filed with this Form 10-K.

** Indicates a document being furnished with this Form 10-K. Information in this Form 10-K furnished herewith shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that Section. Such exhibit shall not be deemed incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CAPITAL ONE FINANCIAL CORPORATION

Date: February 20, 2019

By: /s/ RICHARD D. FAIRBANK
Richard D. Fairbank
Chair, Chief Executive Officer and President

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

Signature	Title	Date
<u>/s/ RICHARD D. FAIRBANK</u> Richard D. Fairbank	Chair, Chief Executive Officer and President (Principal Executive Officer)	February 20, 2019
<u>/s/ R. SCOTT BLACKLEY</u> R. Scott Blackley	Chief Financial Officer (Principal Financial Officer)	February 20, 2019
<u>/s/ TIMOTHY P. GOLDEN</u> Timothy P. Golden	Controller (Principal Accounting Officer)	February 20, 2019
<u>/s/ APARNA CHENNAPRAGADA</u> Aparna Chennapragada	Director	February 20, 2019
<u>/s/ ANN FRITZ HACKETT</u> Ann Fritz Hackett	Director	February 20, 2019
<u>/s/ LEWIS HAY, III</u> Lewis Hay, III	Director	February 20, 2019
<u>/s/ BENJAMIN P. JENKINS, III</u> Benjamin P. Jenkins, III	Director	February 20, 2019
<u>/s/ PETER THOMAS KILLALEA</u> Peter Thomas Killalea	Director	February 20, 2019
<u>/s/ C.P.A.J. (ELI) LEENAARS</u> C.P.A.J. (Eli) Leenaars	Director	February 20, 2019
<u>/s/ PIERRE E. LEROY</u> Pierre E. Leroy	Director	February 20, 2019
<u>/s/ PETER E. RASKIND</u> Peter E. Raskind	Director	February 20, 2019

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<u>/s/ MAYO A. SHATTUCK III</u> Mayo A. Shattuck III	Director	February 20, 2019
<u>/s/ BRADFORD H. WARNER</u> Bradford H. Warner	Director	February 20, 2019
<u>/s/ CATHERINE G. WEST</u> Catherine G. West	Director	February 20, 2019

CAPITAL ONE FINANCIAL CORPORATION
2004 Stock Incentive Plan
Performance Unit Award Agreement

No. of Performance Units at Target: [# Units]

THIS PERFORMANCE UNIT AWARD AGREEMENT (this "Agreement"), dated [Month] [Day], 2019 (the "Date of Grant"), between CAPITAL ONE FINANCIAL CORPORATION, a Delaware corporation ("Capital One" or the "Company"), and [Full NAME] ("you"), is made pursuant and subject to the provisions of the Company's 2004 Stock Incentive Plan, as amended and restated (the "Plan") and all capitalized terms used herein that are defined in the Plan shall have the same meaning given them in the Plan unless they are otherwise defined herein.

WHEREAS, Article 9 of the Plan provides for the award from time to time in the discretion of the Committee of performance units, the vesting and issuance of which are subject to certain service, performance or other conditions;

WITNESSETH:

1. Grant of Performance Units. Capital One hereby grants to you an award of performance units (the "Units") with a target award of [# Units] Units (the "Target Award"). The maximum payout for this award is 150% of the Target Award plus accrued dividends pursuant to Section 6. The Units shall vest and the underlying shares of common stock of Capital One, \$.01 par value per share (such underlying shares, the "Shares"), shall be issuable only in accordance with the provisions of this Agreement and of the Plan. The Units will not have voting rights.

2. Non-Transferability. Subject to the provisions of Section 3 and 13 hereof, the right to receive some or all of the Units and the Shares related thereto shall not be assignable or transferable, or otherwise alienated, pledged or hypothecated or otherwise encumbered under any circumstances. Any purported or attempted assignment, transfer, alienation, pledge, hypothecation or encumbrance of such rights or of the Units or the Shares related thereto prior to their issuance to you shall be null and void and shall result in the immediate forfeiture of such rights or Units, including the Shares related thereto, and cancellation of this Agreement.

3. Lapse of Restrictions.

(a) Vesting. Except as provided in Sections 3(b) and 3(c) below and to the extent not previously vested or forfeited as provided herein, the Units shall vest on a date as determined by the Committee after termination of the Performance Period (as defined below) and certification of performance by the Committee, but no later than March 15, 2022 (the "Date of Issuance"). On the Date of Issuance, the Units shall vest, and the Shares shall become issuable as determined based on the Company's Adjusted ROTCE and Growth of Tangible Book Value Per Share Plus Common Dividends, each as defined on Appendix A, relative to the peer group defined on Appendix B, over a three-year performance period beginning on January 1, 2019 and ending on December 31, 2021 (the "Performance Period") as certified by the Committee following the end of the Performance Period. The number of Units that shall vest and the number of Shares that shall become issuable on the Date of Issuance shall be determined as set forth on Appendix A. The number of Units vesting and the number of Shares that shall become issuable on the Date of Issuance shall be reduced in the event that Adjusted ROTCE for one or more fiscal years in the Performance Period is less than or equal to zero, as provided on Appendix A. The number of Units vesting and the number of Shares that shall become issuable on the Date of Issuance shall also be subject to reduction in accordance with section 12(b) below.

With respect to any Units that have vested on the Date of Issuance, the Shares related thereto shall be issued to you, in settlement of such vested Units, on such Date of Issuance. Dividends will be accrued and paid out as additional shares at the time of the award, as provided in Section 6 below. All Units, including your rights thereto and to the underlying Shares, which do not vest on or before the Date of Issuance, as provided in this Section 3, shall immediately be forfeited as of such Date of Issuance (to the extent not previously forfeited as provided herein).

(b) Effect of Termination of Employment.

(i) Except as provided in Sections 3(b)(ii), 3(b)(iii), and 3(b)(iv), upon termination of your employment with Capital One for any reason prior to the Date of Issuance, all Units shall immediately be forfeited (to the extent not previously vested or forfeited as provided herein).

(ii) Upon termination of your employment as a result of your death or Disability on or prior to December 31, 2021, a number of the Units equal to (1) the Target Award amount as specified above, or (2) following a Change of Control, the Time-Based Units as calculated in Section 3(c) below, shall immediately vest and the Shares shall be immediately issuable to you as soon as practicable following your death or Disability and in all events on or before the later of December 31 of the year of termination or 2.5 months following such termination. Upon your termination of employment as a result of your death or Disability on or after January 1, 2022, but prior to the Date of Issuance, the number of Units that shall vest and the number of Shares that shall be issuable to you shall be as calculated in Section 3(a) above.

(iii) Upon your Retirement on or before December 31, 2021, the number of Units that shall vest and the number of Shares that shall be issuable to you shall be as calculated in Section 3(a) and 3(c).

(iv) Subject to Section 3(b)(v), upon termination of your employment by Capital One not for Cause on or before December 31, 2021 and prior to the occurrence of a Change of Control, the number of Units that will vest and the number of underlying Shares that will become issuable to you shall be as calculated in Section 3(a) as if a termination of employment had not occurred, subject to (A) your execution of a separation agreement and/or general release of claims within a period of time as required by Capital One (in a form as prescribed by Capital One, a "Release"), (B) such Release becoming effective and irrevocable in accordance with its terms and (C) your continued compliance with the terms of such Release through the Date of Issuance. If the Date of Issuance occurs prior to the expiration of the period of time Capital One provides you to sign the Release, you shall be entitled to vesting of the Units even if you have not yet executed the Release. For avoidance of doubt, such continued vesting shall immediately cease (and any Units shall be immediately forfeited) in the event that you violate the terms and conditions of the Release.

(v) Your right to continued vesting pursuant to Section 3(b)(iv) is expressly conditioned on your compliance with any and all restrictive covenant agreements or provisions to which you are a party with Capital One including, but not limited to, those with respect to non-competition, confidentiality and work product, non-solicitation of employees/no hire of employees, non-solicitation of customers, and garden transition period or leave (collectively, "Restrictive Covenant Agreements"). You understand and agree that any actual or threatened action by you in violation of any Restrictive Covenant Agreements shall forfeit your right to continued post-employment vesting as of the date of such actual or threatened action by you in violation of such Restrictive Covenant Agreement. You further understand and agree that any forfeiture of continued vesting rights under this Agreement, or waiver thereof, shall not limit Capital One's rights to pursue any and all legal and equitable remedies and damages available for your breach of the Restrictive Covenant Agreements under the terms of such agreements and applicable law, including but not limited to, injunctive relief, monetary damages, costs and fees.

(c) Effect of Change of Control. Upon a Change of Control, a number of Units shall, upon certification of performance by the Committee, convert into time-based restricted stock units (the "Time-Based Units") calculated based on a performance period from January 1, 2019 through the end of the fiscal quarter immediately preceding the closing date of the transaction giving rise to the Change of Control; and provided further that the Date of Issuance in such case shall be December 31, 2021 subject to either (1) your continued employment through such date or (2) your Retirement, pursuant to Section 3(b)(iii). Upon your termination of employment by Capital One without Cause or for Good Reason (each as defined below), in either case on or prior to the second anniversary of the occurrence of a Change of Control of Capital One and prior to the Date of Issuance with respect to the Time-Based Units, then notwithstanding anything herein to the contrary, all of the Time-Based Units shall vest and the Shares shall be issuable in full without restrictions on transferability immediately upon the occurrence of your termination of employment following such Change of Control (to the extent not previously vested or forfeited as provided herein) and such date shall be the Date of Issuance; provided, however, that if the Time-Based Units are considered deferred compensation under Section 409A of the Code and not exempt from Section 409A of the Code as a short-term deferral or otherwise, and you are a "specified employee," as defined in and pursuant to Reg. Section 1.409A 1(i) or any successor regulation, on the date of any such termination of employment without Cause or for Good Reason, you will not be entitled to such vesting earlier than the earlier of (i) the date which is six months from the date of your "separation from service" (as defined in Reg. Section 1.409A 1(h) or any successor regulation) as a result of such termination and (ii) your death.

With respect to any Time-Based Units that have vested, the Shares related thereto shall be issued to you, in settlement of such vested Time-Based Units, on the Date of Issuance. Dividends will be accrued and paid out as additional shares at the time of the award, as provided in Section 6 below. All Time-Based Units, including your rights thereto and to the underlying Shares, which do not vest on or before the Date of Issuance, as provided in this Section 3, shall immediately be forfeited as of such Date of Issuance (to the extent not previously forfeited as provided herein).

(d) Definitions.

(i) For purposes of this Agreement, “Cause” shall mean (1) the willful and continued failure to perform substantially your duties with the Company or any Affiliate (other than any such failure resulting from incapacity due to physical or mental illness or following your delivery of a Notice of Termination for Good Reason), after a written demand for substantial performance is delivered to you by the Board or the Chief Executive Officer of the Company that specifically identifies the manner in which the Board or the Chief Executive Officer of the Company believes that you have not substantially performed your duties, or (2) the willful engaging by you in illegal conduct or gross misconduct that is materially and demonstrably injurious to the Company. No act, or failure to act, on the part of you shall be considered “willful” unless it is done, or omitted to be done, by you in bad faith or without reasonable belief that your action or omission was in the best interests of the Company. Any act, or failure to act, based upon (A) authority given pursuant to a resolution duly adopted by the Board, or if the Company is not the ultimate parent corporation of the Affiliate and is not publicly-traded, the board of directors of the ultimate parent of the Company (the “Applicable Board”), (B) the instructions of the Chief Executive Officer of the Company (unless you are the Chief Executive Officer at the time of any such instruction) or (C) the advice of counsel for the Company shall be conclusively presumed to be done, or omitted to be done, by you in good faith and in the best interests of the Company. The cessation of your employment shall not be deemed to be for Cause unless and until there shall have been delivered to you a copy of a resolution duly adopted by the affirmative vote of not less than three-quarters of the entire membership of the Applicable Board (excluding you, if you are a member of the Applicable Board) at a meeting of the Applicable Board called and held for such purpose (after reasonable notice is provided to you and you are given an opportunity, together with your counsel, to be heard before the Applicable Board), finding that, in the good faith opinion of the Applicable Board, you are guilty of the conduct described in this Section 3(d)(i), and specifying the particulars thereof in detail.

(ii) For purposes of this Agreement, “Good Reason” shall mean (1) the assignment to you of any duties inconsistent in any respect with your position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any action by the Company that results in a diminution in such position, authority, duties or responsibilities, excluding for this purpose an isolated, insubstantial and inadvertent action not taken in bad faith and that is remedied by the Company promptly after receipt of notice thereof given by you; (2) any failure by the Company to pay your compensation owed other than an isolated, insubstantial and inadvertent failure not occurring in bad faith and that is remedied by the Company promptly after receipt of notice thereof given by you; (3) the Company’s requiring you (I) to be based at any office or location more than 35 miles from the office or location at which you were required to work as of the date of this Agreement or (II) to travel on Company business to a substantially greater extent than required during the 120-day period immediately prior to the date the Change of Control occurs; or (4) any other action or inaction that constitutes a material breach by the Company of this Agreement or any employment agreement. For purposes of this Section 3(d)(ii) of this Agreement, any good faith determination of Good Reason made by you shall be conclusive. Your mental or physical incapacity following the occurrence of an event described above in clauses (1) through (4) shall not affect your ability to terminate employment for Good Reason.

(iii) Any termination by the Company for Cause, or by you for Good Reason, shall be communicated by Notice of Termination to the other party. “Notice of Termination” means a written notice that (1) indicates the specific termination provision in this Agreement relied upon, (2) to the extent applicable, sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of your employment under the provision so indicated, and (3) if the Date of Termination (as defined herein) is other than the date of receipt of such notice, specifies the Date of Termination (which Date of Termination shall be not more than 30 days after the giving of such notice). The failure by you or the Company to set forth in the Notice of Termination any fact or circumstance that contributes to a showing of Good Reason or Cause shall not waive any right of you or the Company, respectively, hereunder or preclude you or the Company, respectively, from asserting such fact or circumstance in enforcing your or the Company’s respective rights hereunder.

(iv) “Date of Termination” means, if your employment is terminated by the Company for Cause, or by you for Good Reason, the date of receipt of the Notice of Termination or such later date specified in the Notice of Termination, as the case may be. You and the Company shall take all steps necessary to ensure that any termination described in this Section 3(d) constitutes a “separation from service” within the meaning of Section 409A of the Code, and notwithstanding anything contained herein to the contrary, the date on which such separation from service takes place shall be the “Date of Termination.”

4 . Modification and Waiver. Except as provided in the Plan with respect to determinations of the Board or the Committee and subject to the Board’s right to amend the Plan, neither this Agreement nor any provision hereof can be changed, modified, amended, discharged, terminated or waived orally or by any course of dealing or purported course of dealing, but only by an agreement in writing signed by you and Capital One; provided, that changes, modifications and amendments not detrimental to you may be made in writing signed only by Capital One. No such agreement shall extend to or affect any provision of this Agreement not expressly changed, modified, amended, discharged, terminated or waived or impair any right consequent on such a provision. The waiver of or failure to enforce any breach of this Agreement shall not be deemed to be a waiver or acquiescence in any other breach thereof.

5 . Tax Withholding. If you become subject to withholding under applicable tax laws, you agree to pay Capital One the amount required to be withheld by one or more of the following methods:

(a) Capital One will automatically withhold the number of Shares having a Fair Market Value on the date the tax withholding obligation is to be determined equal to the amount required to be withheld (as determined pursuant to the Plan), rounded up to the nearest whole Share; or

(b) by such other methods as Capital One may make available from time to time.

6 . Dividends. Dividends with respect to the Shares shall accrue beginning on January 1, 2019, through the applicable Date of Issuance when the Shares underlying the Units or Time-Based Units are delivered, at which time such accrued dividends shall be paid out in the form of additional shares of common stock of the Corporation based on the Fair Market Value of a share of the Company’s common stock on the business day prior to the Date of Issuance. The accrued dividends that shall be paid out to you shall be only such amount that has accrued with respect to the Shares underlying the Units or Time-Based Units that vest on the Date of Issuance.

7 . Governing Law. This Agreement shall be governed by United States federal law and, to the extent not preempted thereby, by the laws of the State of Delaware. Capital One and you hereby consent and submit to the personal jurisdiction and venue of any state or federal court located in any city or county of Delaware for resolution of any and all claims, causes of action or disputes arising out of this Agreement. You and Capital One agree that the court shall not set aside the Committee’s determinations unless there is clear and convincing evidence of bad faith or fraud.

8 . Conflicts. In the event of any conflict between the provisions of the Plan as in effect on the Date of Grant and the provisions of this Agreement, except terms otherwise defined herein, the provisions of this Agreement shall govern. All references herein to the Plan shall mean the Plan as in effect on the date hereof.

9 . Bound by Plan. In consideration of the grant of the Units and the Shares, you agree that you will comply with such conditions as the Committee may impose on the Units and the Shares and be bound by the terms of the Plan.

10 . Employment Status. This Agreement does not constitute a contract of employment nor does it alter your terminable at will status or otherwise guarantee future employment.

11 . Binding Effect. This Agreement shall be binding upon, enforceable against, and inure to the benefit of you and your legatees, distributees and personal representatives, and Capital One and its successors and assigns.

12 . Clawbacks and Other Forfeiture Events.

(a) If, prior to the third anniversary of the Date of Issuance, a Restatement Date occurs, you shall deliver to the Company on the Restatement Delivery Date the Clawback Shares (each as defined below), if any, as determined under this Section 12(a).

For purposes of this Section 12(a):

(i) “Amended Adjusted ROTCE” means the Adjusted ROTCE over the Performance Period and taking into account the financial results of the Company as reflected in the Restatement.

(ii) “Amended Growth of Tangible Book Value Per Share Plus Common Dividends” means the Growth of Tangible Book Value Per Share Plus Common Dividends over the Performance Period and taking into account the financial results of the Company as reflected in the Restatement.

(iii) “Held Shares” means the Shares held by you as of the Restatement Delivery Date in the event that such number of Shares is less than the Clawback Shares.

(iv) “Clawback Shares” means the number of Shares equal to (A) the number of Shares that were issued to you under this Agreement on the Date of Issuance minus (B) the number of shares of common stock of the Company that would have been issuable to you on the Date of Issuance as determined based on the Amended Adjusted ROTCE and the Amended Growth of Tangible Book Value Per Share Plus Common Dividends and certified by the Committee following the Restatement Date. For any member of the Peer Group that restates its financial results for all or any portion of the Performance Period prior to the date that the number of Clawback Shares is certified by the Committee, the Adjusted ROTCE and Growth of Tangible Book Value Per Share Plus Common Dividends for such member of the Peer Group used for purposes of calculating the Clawback Shares shall take into account such restatement. For the avoidance of doubt, neither you nor the Company shall have any obligation with respect to the Clawback Shares in the event that the number of Shares in clause (B) of the preceding sentence exceeds the number of Shares in clause (A) of the preceding sentence. The Clawback Shares shall be delivered to the Company in Shares; provided, however, that in the event that on the Restatement Delivery Date you do not hold a number of Shares equal to or greater than the Clawback Shares, you shall deliver to the Company (x) all Held Shares plus (y) the pre-tax proceeds from sales or other transfers of all Recovery Shares. Such pre-tax proceeds shall be calculated starting with the most recent sale or other transfer of Recovery Shares prior to the Restatement Delivery Date and continuing in reverse chronological order with any prior sales or transfers of Recovery Shares until the pre-tax proceeds of all Recovery Shares are determined. The “pre-tax proceeds” for any Recovery Shares that were transferred by you in a transaction other than a sale on the New York Stock Exchange shall be the Fair Market Value of such Recovery Shares as of the date of such transaction. The “pre-tax proceeds” for any Recovery Shares that were withheld pursuant to Section 5 shall be the Fair Market Value of such Recovery Shares as of the date they were withheld.

(v) “Recovery Shares” means the number of Shares equal to the difference between the Clawback Shares and your Held Shares.

(vi) “Restatement” means an accounting restatement of the Company’s financial statements, covering all or any portion of the Performance Period, due to the noncompliance of the Company with any financial reporting requirement under the securities laws. For the avoidance of doubt, in the event that the Company makes any accounting restatement solely due to (A) any change after the Date of Issuance in U.S. generally accepted accounting principles or (B) any change after the Date of Issuance in financial reporting requirements under the securities laws, such restatement shall not constitute a “Restatement” under this Section 12(a).

(vii) “Restatement Date” means the date after the Date of Issuance upon which the Company first files (A) a Restatement or (B) a Current Report on Form 8-K with the Securities and Exchange Commission (or otherwise publicly announces) that the Company expects to issue a Restatement.

(viii) “Restatement Delivery Date” means the date that is 30 days after the number of Clawback Shares is certified by the Committee in accordance with this Section 12(a), or such earlier date upon which you deliver the Clawback Shares to the Company.

(b) The number of Units vesting and the number of Shares that shall become issuable on the Date of Issuance shall be subject to reduction in an amount as determined by the Committee in its sole discretion in the event that, prior to the Date of Issuance, the Committee in its sole discretion determines that (i) there has been misconduct resulting in either a violation of law or of Capital One policy or procedures, including but not limited to Capital One’s Code of Business Conduct and Ethics, that in either case causes significant financial or reputational harm to Capital One and (ii) either you committed the misconduct or failed in your responsibility to manage or monitor the applicable conduct or risks.

(c) You agree to reimburse the Company with respect to the Units and the Shares to the extent required under Section 304 of the Sarbanes-Oxley Act of 2002 or as otherwise required by law.

13. Mandatory Holding Requirement.

(a) You agree that with respect to the Applicable Holding Shares you may not transfer, sell, pledge, hypothecate or otherwise dispose of such Applicable Holding Shares until the Holding Date; provided that the requirements set forth in this Section 13 shall immediately lapse and be of no further force and effect upon your death, Disability or termination of employment by Capital One without Cause or for Good Reason following a Change of Control, pursuant to Section 3(c).

(b) For purposes of this Section 13:

(i) "Applicable Holding Shares" means 50% of the Shares acquired hereunder (not including any shares of common stock of the Company sold or retained by the Company or its designated agent to fund the payment of any tax withholding obligation, brokerage commission or fees payable in connection with the Shares) during your term of employment with the Company and during the one-year period after termination of your employment for any reason; and

(ii) "Holding Date" means the first anniversary of the date of acquisition of any Applicable Holding Shares.

14. Data Protection. You consent to the collection, processing and transfer (including international transfer) of your personally identifiable data in connection with the grant of the Units and participation in the Plan.

15. Severability. This Agreement shall be enforceable to the fullest extent allowed by law. In the event that any provision of this Agreement is determined to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, then that provision shall be reduced, modified or otherwise conformed to the relevant law, judgment or determination to the degree necessary to render it valid and enforceable without affecting the validity, legality or enforceability of any other provision of this Agreement or the validity, legality or enforceability of such provision in any other jurisdiction. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be deemed severable from the remainder of this Agreement, and the remaining provisions contained in this Agreement shall be construed to preserve to the maximum permissible extent the intent and purposes of this Agreement.

16. Miscellaneous. In accepting the grant, you acknowledge and agree that:

(a) this Agreement is intended to comply with the applicable requirements of Section 409A of the Code and shall be limited, construed and interpreted in a manner so as to comply therewith;

(b) your obligations under this Agreement shall survive any termination of your employment with the Company for any reason;

(c) any of the Company's rights or remedies under this Agreement shall be cumulative and in addition to whatever other remedies the Company may have under law or equity;

(d) any recovery by the Company under this Agreement will be a recovery of Shares to which you were not entitled under this Agreement and is not to be construed in any manner as a penalty;

(e) the Company may, to the maximum extent permitted by applicable law and Section 409A of the Code, retain for itself funds or securities otherwise payable to you pursuant to this Agreement to satisfy any obligation or debt that you owe to the Company, including any obligations hereunder. The Company may not retain such funds or securities until such time as they would otherwise be distributable to you in accordance with this Agreement;

(f) the Company reserves the right to impose other requirements on the Restricted Stock Units, any Shares acquired pursuant to the Restricted Stock Units, and your participation in the Plan, to the extent Capital One determines, in its sole discretion, that such other requirements are necessary or advisable in order to comply with local laws, rules and regulations, or to facilitate the administration of the Restricted Stock Units and the Plan. Such requirements may

include (but are not limited to) requiring you to sign any agreements or undertakings that may be necessary to accomplish the foregoing; and

(g) Capital One from time to time distributes and makes available to associates disclosure documents, including a prospectus, relating to the Plan. You may also contact the HR Help Center to obtain copies of the Plan disclosure documents and the Plan. You should carefully read the Plan disclosure documents and the Plan. By accepting the benefits of this Agreement you acknowledge receipt of the Plan and the Plan disclosure documents and agree to be bound by the terms of this Agreement and the Plan. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by Capital One or a third-party designated by Capital One.

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed on their behalf.

CAPITAL ONE FINANCIAL CORPORATION

By: /s/ Jory Berson
Jory Berson
Chief Human Resources Officer

PARTICIPANT

By: SIGNED BY ELECTRONIC SIGNATURE
[FIRST NAME] [LAST NAME]

BY ELECTRONICALLY ACCEPTING THE AWARD, YOU AGREE THAT (i) SUCH ACCEPTANCE CONSTITUTES YOUR ELECTRONIC SIGNATURE IN EXECUTION OF THIS AGREEMENT; (ii) YOU AGREE TO BE BOUND BY THE PROVISIONS OF THE PLAN AND THE AGREEMENT; (iii) YOU HAVE REVIEWED THE PLAN AND THE AGREEMENT IN THEIR ENTIRETY, HAVE HAD AN OPPORTUNITY TO OBTAIN THE ADVICE OF COUNSEL PRIOR TO ACCEPTING THE AWARD AND FULLY UNDERSTAND ALL OF THE PROVISIONS OF THE PLAN AND THE AGREEMENT; (iv) YOU HAVE BEEN PROVIDED WITH A COPY OR ELECTRONIC ACCESS TO A COPY OF THE U.S. PROSPECTUS FOR THE PLAN; AND (v) YOU HEREBY AGREE TO ACCEPT AS BINDING, CONCLUSIVE AND FINAL ALL DECISIONS OR INTERPRETATIONS OF THE COMMITTEE UPON ANY QUESTIONS ARISING UNDER THE PLAN AND THE AGREEMENT.

* * * * *

APPENDIX A

PERFORMANCE SHARE METRICS AND PAYOUT

1. *Company Performance Relative to Peer Group*

The number of Units that shall vest and the number of Shares that shall become issuable on the Date of Issuance pursuant to Section 3(a) shall be based on the Company's performance over the Performance Period, measured by two metrics weighted as follows:

- (a) **One-Third** of the Units (the "Adjusted ROTCE Tranche") shall become issuable as Shares based on the Adjusted ROTCE achieved by the Company over the Performance Period, relative to the Adjusted ROTCE achieved by each member of the Peer Group over the Performance Period, expressed as a percentile (the "Adjusted ROTCE Percentile"), such that:
- (i) If the Company's Adjusted ROTCE Percentile is 80th or higher, then 150% of the Adjusted ROTCE Tranche shall be issuable as Shares.
 - (ii) If the Company's Adjusted ROTCE Percentile is 25th, then 40% of the Adjusted ROTCE Tranche shall be issuable as Shares.
 - (iii) If the Company's Adjusted ROTCE Percentile below 25th, then 0% of the Adjusted ROTCE Tranche shall be issuable as Shares.
 - (iv) If the Company's Adjusted ROTCE Percentile is above 25th but below 80th, then the number of issuable Shares shall be calculated by straight line interpolation from the points listed above.

"Adjusted ROTCE" means the ratio, expressed as a percentage, of (a) the Company's net income available to common stockholders, excluding, on a tax adjusted basis, the impact of impairment, amortization and re-measurement of intangible assets, to (b) the Company's average tangible common equity; and shall exclude the initial effects of changes in tax laws, accounting principles or regulations, or other laws or provisions affecting the reported results if the Committee determines that such adjustments are appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or necessary or appropriate to comply with applicable laws, rules or regulations.

- (b) **Two-Thirds** of the Units (the "Growth of Tangible Book Value Per Share Plus Common Dividends Tranche") shall become issuable as Shares based on the Growth of Tangible Book Value Per Share Plus Common Dividends achieved by the Company over the Performance Period, relative to the Growth of Tangible Book Value Per Share Plus Common Dividends achieved by each member of the Peer Group over the Performance Period, expressed as a percentile (the "Growth of Tangible Book Value Per Share Plus Common Dividends Percentile"), such that:
- (i) If the Company's Growth of Tangible Book Value Per Share Plus Common Dividends Percentile is 80th or higher, then 150% of the Growth of Tangible Book Value Per Share Plus Common Dividends Tranche shall be issuable as Shares.
 - (ii) If the Company's Growth of Tangible Book Value Per Share Plus Common Dividends Percentile is 25th, then 40% of the Growth of Tangible Book Value Per Share Plus Common Dividends Tranche shall be issuable as Shares.
 - (iii) If the Company's Growth of Tangible Book Value Per Share Plus Common Dividends Percentile below 25th, then 0% of the Growth of Tangible Book Value Per Share Plus Common Dividends Tranche shall be issuable as Shares.
 - (iv) If the Company's Growth of Tangible Book Value Per Share Plus Common Dividends Percentile is above 25th but below 80th, then the number of issuable Shares shall be calculated by straight line interpolation from the points listed above.

"Growth of Tangible Book Value Per Share Plus Common Dividends" means the three year average of the ratios, expressed as a percentage, of (a) the Company's tangible book value per share at the end of each year within the

Performance Period, plus total common dividends per share paid during such year, to (b) the Company's tangible book value per share at the beginning of each corresponding year within the Performance Period; and shall exclude the initial effects of changes in tax laws, accounting principles or regulations, or other laws or provisions affecting the reported results if the Committee determines that such adjustments are appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or necessary or appropriate to comply with applicable laws, rules or regulations..

Subject to section 2 below, the total Shares issuable pursuant to this Agreement (the "Total Shares Earned") shall be equal to the sum of the Shares issuable pursuant to paragraphs (a) and (b) above.

2. *Absolute Performance Modifier*

In the event that the Company's Adjusted ROTCE for one or more fiscal years in the Performance Period is less than or equal to zero, the Total Shares Earned shall be reduced as provided below:

- (a) If the Company's Adjusted ROTCE is less than or equal to zero for one fiscal year within the Performance Period, the Total Shares Earned shall be reduced by one-sixth;
 - (b) If the Company's Adjusted ROTCE is less than or equal to zero for any two fiscal years within the Performance Period, the Total Shares Earned shall be reduced by one-third; and
 - (c) If the Company's Adjusted ROTCE is less than or equal to zero for all three fiscal years within the Performance Period, the Total Shares Earned shall be forfeited in full.
-

APPENDIX B

PEER GROUP

The “Peer Group” shall consist of the companies in the KBW Bank Sector index as of January 1, 2019, excluding custody banks in that index, as shown below. For members of the Peer Group who fail or are acquired, the Adjusted ROTCE and Growth of Tangible Book Value Per Share Plus Common Dividends through the time the independent company stops reporting GAAP financials will be frozen and serve as their final metrics for the Performance Period. Members of the Peer Group that continue to operate as independent companies but that fall out of the KBW Bank Sector index will continue to be used in the Peer Group. Any new entrants to the KBW Bank Sector index after January 1, 2019 will not be considered members of the Peer Group for any award determination or calculation related to this Agreement.

Bank of America
BB&T Corporation
Citigroup
Citizens Financial Group
Comerica
Fifth Third Bancorp
First Republic
Huntington Bancshares
JP Morgan Chase
KeyCorp
M&T
New York Community Bancorp
People’s United
PNC
Regions
SunTrust
SVB Financial
US Bancorp
Wells Fargo
Zions

CAPITAL ONE FINANCIAL CORPORATION
2004 Stock Incentive Plan
Restricted Stock Unit Award Agreement

No. of Units: [# Units]

THIS RESTRICTED STOCK UNIT AWARD AGREEMENT (this "Agreement"), dated January 31, 2019 (the "Date of Grant"), between CAPITAL ONE FINANCIAL CORPORATION, a Delaware corporation ("Capital One" or the "Company"), and **Richard D. Fairbank** ("you"), is made pursuant and subject to the provisions of the Company's 2004 Stock Incentive Plan, as amended and restated (the "Plan"). All capitalized terms used herein that are defined in the Plan shall have the same meaning given them in the Plan unless otherwise defined herein.

WHEREAS, Article 8 of the Plan provides for the award from time to time in the discretion of the Committee of Restricted Stock Units, representing shares of common stock of Capital One, \$.01 par value per share ("Common Stock"), the vesting and issuance of which are subject to continued employment with Capital One or other conditions;

WITNESSETH:

1. Grant of Restricted Stock Units. Capital One hereby grants to you [# Units] Restricted Stock Units (the "Restricted Stock Units"). The Restricted Stock Units shall vest only in accordance with the provisions of this Agreement and of the Plan. The Restricted Stock Units will not have voting rights.

2. Non-Transferability. Subject to the provisions of Section 3 hereof, the rights represented by the Restricted Stock Units shall not be assignable or transferable, or otherwise alienated or hypothecated, under any circumstances. Any purported or attempted transfer of such units or such rights shall be null and void and shall result in the immediate forfeiture and cancellation of the Restricted Stock Units.

3. Payment of Restricted Stock Units.

(a) Vesting. Except as provided in Sections 3(b), 3(c), 3(d), 12(a) and 12(b) below, and to the extent not previously vested or forfeited as provided herein, the Restricted Stock Units shall vest in full on February 15, 2022 (the "Vesting Date"). The period between January 1, 2019, and the Vesting Date shall be the "Performance Period."

Upon vesting, the Restricted Stock Units shall become payable in cash in an amount equal to the product of (i) the average Fair Market Value of the Common Stock for the 15 trading days preceding the Vesting Date and (ii) the number of Restricted Stock Units vesting on the Vesting Date (subject to Section 5 below).

(b) Effect of Termination of Employment.

(i) Except as provided in Section 3(b)(ii), 3(b)(iii) and 3(d), upon your termination of employment with Capital One for any reason all Restricted Stock Units shall immediately be forfeited (to the extent not previously vested or forfeited as provided herein).

(ii) Upon your termination of employment with Capital One as a result of your death or Disability, the Restricted Stock Units shall immediately vest, the date of such death or Disability shall be the Vesting Date and the cash shall become payable in full as described in Section 3(a) (to the extent not previously vested or forfeited as provided herein).

(iii) Upon your termination of employment with Capital One as a result of Retirement, the Restricted Stock Units shall continue to vest on the Vesting Date (to the extent not previously vested or forfeited as provided herein) and remain subject to reduction pursuant to Sections 12(a) and 12(b).

(c) Vesting Schedule Upon Becoming Subject to Withholding.

(i) Unless otherwise determined by the Committee or the independent members of the Board of Directors, as applicable, and to the extent permitted or required by law, Capital One may determine, in its sole discretion, (A) that you have become subject to withholding under applicable tax laws at a time when amounts are not otherwise vesting pursuant to this Section 3, and (B) that a portion of the Restricted Stock Units shall vest and become payable, only and to the extent sufficient on the date of such determination (the "Determination Date"), to provide for the payment of any tax liability in accordance with applicable tax laws, in an amount equal to the product of (i) the Fair Market Value of the Common Stock for the Determination Date and (ii) the number of Restricted Stock Units vesting on the Determination Date. The number of Restricted Stock Units vesting pursuant to the preceding sentence shall be rounded up to the nearest whole Restricted Stock Unit. It is understood that the remaining portion of the Restricted Stock Units shall continue to vest on the Vesting Date as provided herein (to the extent not previously vested or forfeited as provided herein).

(ii) Notwithstanding any other provision of this Agreement to the contrary, Capital One will take all necessary steps to withhold the amount determined in accordance with the immediately foregoing paragraph in satisfaction of any applicable tax withholding liability, unless Capital One makes another method of payment available to you.

(d) Effect of Change of Control. Upon your termination of employment by Capital One without Cause or by you for Good Reason (each as defined below), in either case on or prior to the second anniversary of the occurrence of a Change of Control of Capital One, then, notwithstanding anything herein to the contrary, the Restricted Stock Units shall vest, the date of such termination shall be the Vesting Date and the Restricted Stock Units shall become payable in cash as described in Section 3(a) immediately following the occurrence of your termination of employment following such Change of Control (to the extent not previously vested or forfeited as provided herein); provided, however, that if the Restricted Stock Units are considered deferred compensation under Section 409A of the Code and not exempt from Section 409A of the Code as a short-term deferral or otherwise, and you are a "specified employee," as defined in and pursuant to Reg. Section 1.409A 1(i) or any successor regulation, on the date of any such termination of employment without Cause or for Good Reason, you will not be entitled to such vesting earlier than the earlier of (i) the date which is six months from the date of your "separation from service" (as defined in Reg. Section 1.409A 1(h) or any successor regulation) as a result of such termination and (ii) your death.

(e) Definitions.

(i) For purposes of this Agreement, "Cause" shall mean (1) the willful and continued failure to perform substantially your duties with the Company or any Affiliate (other than any such failure resulting from incapacity due to physical or mental illness or following your delivery of a Notice of Termination for Good Reason), after a written demand for substantial performance is delivered to you by the Board or the Committee that specifically identifies the manner in which the Board or Committee believes that you have not substantially performed your duties, or (2) the willful engaging by you in illegal conduct or gross misconduct that is materially and demonstrably injurious to the Company. No act, or failure to act, on the part of you shall be considered "willful" unless it is done, or omitted to be done, by you in bad faith or without reasonable belief that your action or omission was in the best interests of the Company. Any act, or failure to act, based upon (A) authority given pursuant to a resolution duly adopted by the Board, or if the Company is not the ultimate parent corporation of the Affiliate and is not publicly-traded, the board of directors of the ultimate parent of the Company (the "Applicable Board") or (B) the advice of counsel for the Company shall be conclusively presumed to be done, or omitted to be done, by you in good faith and in the best interests of the Company. The cessation of your employment shall not be deemed to be for Cause unless and until there shall have been delivered to you a copy of a resolution duly adopted by the affirmative vote of not less than three-quarters of the entire membership of the Applicable Board (excluding you, if you are a member of the Applicable Board) at a meeting of the Applicable Board called and held for such purpose (after reasonable notice is provided to you and you are given an opportunity, together with your counsel, to be heard before the Applicable Board), finding that, in the good faith opinion of the Applicable Board, you are guilty of the conduct described in this Section 3(e)(i), and specifying the particulars thereof in detail.

(ii) For purposes of this Agreement, "Good Reason" shall mean (1) the assignment to you of any duties inconsistent in any respect with your position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any action by the Company that results in a diminution in such position, authority, duties or responsibilities, excluding for this purpose an isolated, insubstantial and inadvertent action not taken in bad faith and that is remedied by the Company promptly after receipt of notice thereof given by you; (2) any failure by the Company to pay your compensation owed other than an isolated, insubstantial and

inadvertent failure not occurring in bad faith and that is remedied by the Company promptly after receipt of notice thereof given by you; (3) the Company's requiring you (I) to be based at any office or location more than 35 miles from the office or location at which you were required to work as of the date of this Agreement or (II) to travel on Company business to a substantially greater extent than required during the 120-day period immediately prior to the date the Change of Control occurs; or (4) any other action or inaction that constitutes a material breach by the Company of this Agreement or any employment agreement. For purposes of this Section 3(e)(ii) of this Agreement, any good faith determination of Good Reason made by you shall be conclusive. Your mental or physical incapacity following the occurrence of an event described above in clauses (1) through (4) shall not affect your ability to terminate employment for Good Reason.

(iii) Any termination by the Company for Cause, or by you for Good Reason, shall be communicated by Notice of Termination to the other party. "Notice of Termination" means a written notice that (1) indicates the specific termination provision in this Agreement relied upon, (2) to the extent applicable, sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of your employment under the provision so indicated, and (3) if the Date of Termination (as defined herein) is other than the date of receipt of such notice, specifies the Date of Termination (which Date of Termination shall be not more than 30 days after the giving of such notice). The failure by you or the Company to set forth in the Notice of Termination any fact or circumstance that contributes to a showing of Good Reason or Cause shall not waive any right of you or the Company, respectively, hereunder or preclude you or the Company, respectively, from asserting such fact or circumstance in enforcing your or the Company's respective rights hereunder.

(iv) "Date of Termination" means, if your employment is terminated by the Company for Cause, or by you for Good Reason, the date of receipt of the Notice of Termination or such later date specified in the Notice of Termination, as the case may be. You and the Company shall take all steps necessary to ensure that any termination described in this Section 3(e) constitutes a "separation from service" within the meaning of Section 409A of the Code, and notwithstanding anything contained herein to the contrary, the date on which such separation from service takes place shall be the "Date of Termination."

4. Modification and Waiver. Except as provided in the Plan with respect to determinations of the Committee and subject to the Committee's right to amend the Plan, neither this Agreement nor any provision hereof can be changed, modified, amended, discharged, terminated or waived orally or by any course of dealing or purported course of dealing, but only by an agreement in writing signed by you and Capital One; provided that, changes, modifications and amendments not detrimental to you may be made in writing signed only by Capital One. No such agreement shall extend to or affect any provision of this Agreement not expressly changed, modified, amended, discharged, terminated or waived or impair any right consequent on such a provision. The waiver of or failure to enforce any breach of this Agreement shall not be deemed to be a waiver or acquiescence in any other breach thereof.

5. Tax Withholding. If you become subject to withholding under applicable tax laws other than as described in Section 3(c), you agree to pay Capital One the amount required to be withheld by one or more of the following methods:

- (a) automatically through payroll withholding; or
- (b) by such other methods as Capital One may make available from time to time.

6. Dividend Equivalents. With respect to the Restricted Stock Units, you shall be credited with dividend equivalents as and when dividends are paid to the Company's other stockholders. By accepting this Award, you agree that such dividend equivalents shall accumulate and be paid to you in cash (without interest) as and when you receive payment under Section 3 with respect to the Restricted Stock Units from which such dividend equivalents are derived. You further agree that all such dividend equivalents shall be subject to the same vesting requirements that apply to the Restricted Stock Units from which such dividend equivalents are derived.

7. Governing Law. This Agreement shall be governed by United States federal law and, to the extent not preempted thereby, by the laws of the State of Delaware. Capital One and you hereby consent and submit to the personal jurisdiction and venue of any state or federal court located in any city or county of Delaware for resolution of any and all claims, causes of action or disputes arising out of this Agreement. You and Capital One agree that the court shall not set aside the Committee's determinations unless there is clear and convincing evidence of bad faith or fraud.

8. Conflicts. In the event of any conflict between the provisions of the Plan as in effect on the Date of Grant and the provisions of this Agreement, except terms otherwise defined herein, the provisions of the Plan shall govern. All references herein to the Plan shall mean the Plan as in effect on the date hereof.

9. Bound by Plan. In consideration of the grant of the Restricted Stock Units, you agree that you will comply with such conditions as the Committee may impose on the Restricted Stock Units and be bound by the terms of the Plan.

10. Employment Status. This Agreement does not constitute a contract of employment nor does it alter your terminable at will status or otherwise guarantee future employment.

11. Binding Effect. This Agreement shall be binding upon, enforceable against, and inure to the benefit of you and your legatees, distributees and personal representatives, and Capital One and its successors and assigns.

12. Performance-Based Adjustments, Clawbacks and Other Forfeiture Events.

(a) Performance-Based Adjustment. The number of Restricted Stock Units vesting on the Vesting Date shall be subject to reduction as follows:

(i) For each fiscal year of the Company ending during the Performance Period, if any, that the Core Earnings for the Company for such fiscal year, as certified by the Committee, are not positive (i.e., Core Earnings are not greater than zero):

(A) The number of Restricted Stock Units scheduled to vest on the Vesting Date shall be reduced by [# Units];

(B) The Committee shall determine the extent, if any, to which you are accountable for such outcome, and, based on such determination, the Committee shall determine (I) whether the number of Restricted Stock Units scheduled to vest on the Vesting Date shall be reduced by up to an additional [# Units] and (II) whether the Vesting Date shall be delayed for all or any portion of such Restricted Stock Units that are not so reduced.

The Committee shall make the determinations referenced in Section 12(a)(i)(B) in its sole discretion, taking into account the factors set forth on Appendix A hereto.

(ii) For purposes of this Section 12(a), "Core Earnings" means the Company's net income available to common stockholders, excluding, on a tax-adjusted basis, the impact of (A) impairment or amortization of intangible assets, (B) the build or release of the allowance for loan and lease losses, calculated as the difference between the provision for loan and lease losses and charge-offs, net of recoveries, and (C) the change in the combined uncollectible finance charge and fee reserve.

(iii) In the event of any change to U.S. generally accepted accounting principles affecting the treatment or classification of any component of Core Earnings, such metric shall be calculated in a manner consistent with the definitions herein to the extent practicable.

Notwithstanding anything to the contrary in this Agreement and for the avoidance of doubt, in the event of a Change of Control of Capital One, there shall be no reduction pursuant to this Section 12(a) for any fiscal year ending after the date of such Change of Control.

(b) Clawback. The number of Restricted Stock Units vesting on the Vesting Date shall be subject to reduction in an amount as determined by the Committee in its sole discretion in the event that prior to the Vesting Date the Committee in its sole discretion determines that (i) there has been misconduct resulting in either a violation of law or of Capital One policy or procedures, including but not limited to Capital One's Code of Business Conduct and Ethics, that in either case causes significant financial or reputational harm to Capital One and (ii) either you committed the misconduct or failed in your responsibility to manage or monitor the applicable conduct or risks.

(c) Forfeiture Event. You agree to reimburse the Company with respect to the Restricted Stock Units to the extent required under Section 304 of the Sarbanes-Oxley Act of 2002 or as otherwise required by law.

13. Data Protection. You consent to the collection, processing and transfer (including international transfer) of your personally identifiable data in connection with the grant of the Restricted Stock Units and participation in the Plan.

14. **Severability.** This Agreement shall be enforceable to the fullest extent allowed by law. In the event that any provision of this Agreement is determined to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, then that provision shall be reduced, modified or otherwise conformed to the relevant law, judgment or determination to the degree necessary to render it valid and enforceable without affecting the validity, legality or enforceability of any other provision of this Agreement or the validity, legality or enforceability of such provision in any other jurisdiction. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be deemed severable from the remainder of this Agreement, and the remaining provisions contained in this Agreement shall be construed to preserve to the maximum permissible extent the intent and purposes of this Agreement.

15. **Miscellaneous.** In accepting the grant, you acknowledge and agree that:

(a) this Agreement is intended to comply with the applicable requirements of Section 409A of the Code and shall be limited, construed and interpreted in a manner so as to comply therewith;

(b) your obligations under this Agreement shall survive any termination of your employment with the Company for any reason;

(c) any of the Company's rights or remedies under this Agreement shall be cumulative and in addition to whatever other remedies the Company may have under law or equity;

(d) any recovery by the Company under this Agreement will be a recovery of Restricted Stock Units to which you were not entitled under this Agreement and is not to be construed in any manner as a penalty;

(e) the Company may, to the maximum extent permitted by applicable law and Section 409A of the Code, retain for itself funds or securities otherwise payable to you pursuant to this Agreement to satisfy any obligation or debt that you owe the Company, including any obligations hereunder. The Company may not retain such funds or securities until such time as they would otherwise be distributable to you in accordance with this Agreement;

(f) the Company reserves the right to impose other requirements on the Restricted Stock Units, any Shares acquired pursuant to the Restricted Stock Units, and your participation in the Plan, to the extent Capital One determines, in its sole discretion, that such other requirements are necessary or advisable in order to comply with local laws, rules and regulations, or to facilitate the administration of the Restricted Stock Units and the Plan. Such requirements may include (but are not limited to) requiring you to sign any agreements or undertakings that may be necessary to accomplish the foregoing; and

(g) Capital One from time to time distributes and makes available to associates disclosure documents, including a prospectus, relating to the Plan. You may also contact the HR Help Center to obtain copies of the Plan disclosure documents and the Plan. You should carefully read the Plan disclosure documents and the Plan. By accepting the benefits of this Agreement you acknowledge receipt of the Plan and the Plan disclosure documents and agree to be bound by the terms of this Agreement and the Plan. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by Capital One or a third-party designated by Capital One.

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed on their behalf.

CAPITAL ONE FINANCIAL CORPORATION

By: /s/ Mayo A. Shattuck III
Mayo A. Shattuck III
Chair, Compensation Committee

PARTICIPANT

By: /s/ Richard D. Fairbank
Richard D. Fairbank
Chair of the Board, Chief Executive
Officer and President

APPENDIX A

PERFORMANCE-BASED ADJUSTMENT DETERMINATION FACTORS

The Committee shall take into account the following factors for purposes of making any determinations referenced in Section 12(a)(i)(B) of the Agreement in its sole discretion:

- The extent to which Core Earnings were negative;
 - Whether the outcome was the result of the performance of a line of business, control function or staff group for which you exercised direct or indirect responsibility;
 - The extent to which your performance contributed to the outcome, including your performance with respect to risk management and oversight; and
 - Such other factors as the Committee deems appropriate.
-

CAPITAL ONE FINANCIAL CORPORATION
2004 Stock Incentive Plan
Restricted Stock Unit Award Agreement

No. of Units: [# Units]

THIS RESTRICTED STOCK UNIT AWARD AGREEMENT (this "Agreement"), dated [Month] [Day], 2019 (the "Date of Grant"), between CAPITAL ONE FINANCIAL CORPORATION, a Delaware corporation ("Capital One" or the "Company"), and [Full NAME] ("you"), is made pursuant and subject to the provisions of the Company's 2004 Stock Incentive Plan, as amended and restated (the "Plan"), and all capitalized terms used herein that are defined in the Plan shall have the same meaning given them in the Plan unless otherwise defined herein.

WHEREAS, Article 8 of the Plan provides for the award from time to time in the discretion of the Committee of Restricted Stock Units, representing shares of common stock of Capital One, \$.01 par value per share ("Common Stock"), the vesting and issuance of which is subject to continued employment with Capital One or other conditions;

WITNESSETH:

1. Grant of Restricted Stock Units. Capital One hereby grants to you [# Units] Restricted Stock Units (the "Restricted Stock Units"). The Restricted Stock Units shall vest, and the underlying shares of Common Stock (such underlying shares, the "Shares") shall be issuable, only in accordance with the provisions of this Agreement and of the Plan. The Restricted Stock Units will not have voting rights.

2. Non-Transferability. Subject to the provisions of Sections 3 and 12 hereof, the rights represented by the Restricted Stock Units shall not be assignable or transferable, or otherwise alienated or hypothecated, under any circumstances. Any purported or attempted transfer of such Restricted Stock Units or such rights shall be null and void and shall result in the immediate forfeiture and cancellation of the Restricted Stock Units.

3. Issuance of Common Stock.

(a) Vesting. Except as provided in Sections 3(b), 3(c), 3(d), 13(a) and 13(b) below and to the extent not previously vested or forfeited as provided herein, the Restricted Stock Units shall vest, and the Shares shall be issuable in full without restrictions on transferability, other than the restrictions contained in Section 12 below, according to the following schedule:

One-third of the Restricted Stock Units on February 15, 2020
One-third of the Restricted Stock Units on February 15, 2021
One-third of the Restricted Stock Units on February 15, 2022

Each of the immediately above dates shall be a "Scheduled Vesting Date."

(b) Effect of Termination of Employment.

(i) Except as provided in Section 3(b)(ii), 3(b)(iii), 3(b)(iv) and 3(d), upon your termination of employment with Capital One for any reason all Restricted Stock Units shall immediately be forfeited (to the extent not previously vested or forfeited as provided herein).

(ii) Upon your termination of employment with Capital One as a result of your death or Disability, the Restricted Stock Units shall immediately vest, and the Shares shall be issuable in full without restrictions on transferability upon such termination of employment (to the extent not previously vested or forfeited as provided herein).

(iii) Upon your termination of employment with Capital One as a result of Retirement, the Restricted Stock Units shall continue to vest on the Scheduled Vesting Dates (to the extent not previously vested or forfeited as provided herein) and remain subject to reduction pursuant to Section 13(a) and 13(b).

(iv) Subject to Section 3(b)(v), upon your termination of employment by Capital One not for Cause, you will receive continued vesting of the Restricted Stock Units scheduled to vest on each of the Scheduled Vesting Dates as if a termination of employment had not occurred subject to (A) your execution of a separation agreement and/or general release of claims within a period of time as required by Capital One (in a form as prescribed by Capital One, a "Release"), (B) such Release becoming effective and irrevocable in accordance with its terms and (C) your continued compliance with the terms of such Release through each Scheduled Vesting Date. To the extent a Scheduled Vesting Date occurs prior to the expiration of the period of time Capital One provides you to sign the Release, you shall be entitled to vesting of the applicable portion of your Restricted Stock Units on such Scheduled Vesting Date even if you have not yet executed the Release. For avoidance of doubt, such continued vesting shall remain subject to reduction pursuant to Section 13(a) and 13(b) and shall immediately cease (and any then-unvested Restricted Stock Units shall be immediately forfeited) in the event that you violate the terms and conditions of the Release.

(v) Your right to continued vesting pursuant to Section 3(b)(iv) is expressly conditioned on your compliance with any and all restrictive covenant agreements or provisions to which you are a party with Capital One including, but not limited to, those with respect to non-competition, confidentiality and work product, non-solicitation of employees/no hire of employees, non-solicitation of customers, and garden transition period or leave (collectively, "Restrictive Covenant Agreements"). You understand and agree that any actual or threatened action by you in violation of any Restrictive Covenant Agreements shall forfeit your right to continued post-employment vesting as of the date of such actual or threatened action by you in violation of such Restrictive Covenant Agreement. You further understand and agree that any forfeiture of continued vesting rights under this Agreement, or waiver thereof, shall not limit Capital One's rights to pursue any and all legal and equitable remedies and damages available for your breach of the Restrictive Covenant Agreements under the terms of such agreements and applicable law, including but not limited to, injunctive relief, monetary damages, costs and fees.

(c) Vesting Schedule Upon Becoming Subject to Withholding.

(i) Unless otherwise determined by the Committee or the independent members of the Board of Directors, as applicable, and to the extent permitted or required by law, Capital One may determine, in its sole discretion, (A) that you have become subject to withholding under applicable tax laws at a time when Restricted Stock Units are not otherwise vesting pursuant to Section 3, and (B) that a portion of the Restricted Stock Units shall vest, and the Shares shall be issuable in full without restrictions on transferability, only and to the extent sufficient, if sold at Fair Market Value, on the date of such determination, to provide for the payment of any tax liability in accordance with applicable tax laws. The number of Restricted Stock Units vesting pursuant to the preceding sentence shall be rounded up to the nearest whole Restricted Stock Unit. It is understood that the remaining portion of the Restricted Stock Units shall continue to vest on the Scheduled Vesting Dates as provided herein (to the extent not previously vested or forfeited as provided herein).

(ii) Notwithstanding any other provision of this Agreement to the contrary, Capital One will take all necessary steps to withhold the amount determined pursuant to the immediately foregoing paragraph in satisfaction of any applicable tax withholding liability.

(d) Effect of Change of Control. Upon your termination of employment by Capital One without Cause or by you for Good Reason (each as defined below), in either case on or prior to the second anniversary of the occurrence of a Change of Control of Capital One, then, notwithstanding anything herein to the contrary, the Restricted Stock Units shall vest and the Shares shall be issuable in full without restrictions on transferability immediately upon the occurrence of your termination of employment following such Change of Control (to the extent not previously vested or forfeited as provided herein); provided, however, that if the Restricted Stock Units are considered deferred compensation under Section 409A of the Code and not exempt from Section 409A of the Code as a short-term deferral or otherwise, and you are a "specified employee," as defined in and pursuant to Reg. Section 1.409A 1(i) or any successor regulation, on the date of any such termination of employment without Cause or for Good Reason, you will not be entitled to such vesting earlier than the earlier of (i) the date which is six months from the date of your "separation from service" (as defined in Reg. Section 1.409A 1(h) or any successor regulation) as a result of such termination and (ii) your death.

(e) Definitions.

(i) For purposes of this Agreement, "Cause" shall mean (1) the willful and continued failure to perform substantially your duties with the Company or any Affiliate (other than any such failure resulting from

incapacity due to physical or mental illness or following your delivery of a Notice of Termination for Good Reason), after a written demand for substantial performance is delivered to you by the Board or the Chief Executive Officer of the Company that specifically identifies the manner in which the Board or the Chief Executive Officer of the Company believes that you have not substantially performed your duties, or (2) the willful engaging by you in illegal conduct or gross misconduct that is materially and demonstrably injurious to the Company. No act, or failure to act, on the part of you shall be considered “willful” unless it is done, or omitted to be done, by you in bad faith or without reasonable belief that your action or omission was in the best interests of the Company. Any act, or failure to act, based upon (A) authority given pursuant to a resolution duly adopted by the Board, or if the Company is not the ultimate parent corporation of the Affiliate and is not publicly-traded, the board of directors of the ultimate parent of the Company (the “Applicable Board”), (B) the instructions of the Chief Executive Officer of the Company (unless you are the Chief Executive Officer at the time of any such instruction) or (C) the advice of counsel for the Company shall be conclusively presumed to be done, or omitted to be done, by you in good faith and in the best interests of the Company. The cessation of your employment shall not be deemed to be for Cause unless and until there shall have been delivered to you a copy of a resolution duly adopted by the affirmative vote of not less than three-quarters of the entire membership of the Applicable Board (excluding you, if you are a member of the Applicable Board) at a meeting of the Applicable Board called and held for such purpose (after reasonable notice is provided to you and you are given an opportunity, together with your counsel, to be heard before the Applicable Board), finding that, in the good faith opinion of the Applicable Board, you are guilty of the conduct described in this Section 3(e)(i), and specifying the particulars thereof in detail.

(ii) For purposes of this Agreement, “Good Reason” shall mean (1) the assignment to you of any duties inconsistent in any respect with your position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any action by the Company that results in a diminution in such position, authority, duties or responsibilities, excluding for this purpose an isolated, insubstantial and inadvertent action not taken in bad faith and that is remedied by the Company promptly after receipt of notice thereof given by you; (2) any failure by the Company to pay your compensation owed other than an isolated, insubstantial and inadvertent failure not occurring in bad faith and that is remedied by the Company promptly after receipt of notice thereof given by you; (3) the Company’s requiring you (I) to be based at any office or location more than 35 miles from the office or location at which you were required to work as of the date of this Agreement or (II) to travel on Company business to a substantially greater extent than required during the 120-day period immediately prior to the date the Change of Control occurs; or (4) any other action or inaction that constitutes a material breach by the Company of this Agreement or any employment agreement. For purposes of this Section 3(e)(ii) of this Agreement, any good faith determination of Good Reason made by you shall be conclusive. Your mental or physical incapacity following the occurrence of an event described above in clauses (1) through (4) shall not affect your ability to terminate employment for Good Reason.

(iii) Any termination by the Company for Cause, or by you for Good Reason, shall be communicated by Notice of Termination to the other party. “Notice of Termination” means a written notice that (1) indicates the specific termination provision in this Agreement relied upon, (2) to the extent applicable, sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of your employment under the provision so indicated, and (3) if the Date of Termination (as defined herein) is other than the date of receipt of such notice, specifies the Date of Termination (which Date of Termination shall be not more than 30 days after the giving of such notice). The failure by you or the Company to set forth in the Notice of Termination any fact or circumstance that contributes to a showing of Good Reason or Cause shall not waive any right of you or the Company, respectively, hereunder or preclude you or the Company, respectively, from asserting such fact or circumstance in enforcing your or the Company’s respective rights hereunder.

(iv) “Date of Termination” means, if your employment is terminated by the Company for Cause, or by you for Good Reason, the date of receipt of the Notice of Termination or such later date specified in the Notice of Termination, as the case may be. You and the Company shall take all steps necessary to ensure that any termination described in this Section 3(e) constitutes a “separation from service” within the meaning of Section 409A of the Code, and notwithstanding anything contained herein to the contrary, the date on which such separation from service takes place shall be the “Date of Termination.”

4. Modification and Waiver. Except as provided in the Plan with respect to determinations of the Committee and subject to the Committee’s right to amend the Plan, neither this Agreement nor any provision hereof can be changed, modified, amended, discharged, terminated or waived orally or by any course of dealing or purported course of dealing, but only by an agreement in writing signed by you and Capital One; provided that, changes, modifications and amendments not detrimental to

you may be made in writing signed only by Capital One. No such agreement shall extend to or affect any provision of this Agreement not expressly changed, modified, amended, discharged, terminated or waived or impair any right consequent on such a provision. The waiver of or failure to enforce any breach of this Agreement shall not be deemed to be a waiver or acquiescence in any other breach thereof.

5. Tax Withholding. If you become subject to withholding under applicable tax laws, you agree to pay Capital One the amount required to be withheld by one or more of the following methods:

(a) Capital One will automatically withhold the number of Shares having a Fair Market Value on the date the tax withholding obligation is to be determined equal to the amount required to be withheld (as determined pursuant to the Plan), rounded up to the nearest whole Share; or

(b) by such other methods as Capital One may make available from time to time.

6. Dividend Equivalents. With respect to the Restricted Stock Units, you shall be credited with dividend equivalents as and when dividends are paid to the Company's other stockholders. By accepting this Award, you agree that such dividend equivalents shall accumulate and be paid to you in cash (without interest) as and when the Restricted Stock Units from which such dividend equivalents are derived vest pursuant to Section 3. You further agree that all such dividend equivalents shall be subject to the same vesting requirements that apply to the Restricted Stock Units from which such dividend equivalents are derived.

7. Governing Law. This Agreement shall be governed by United States federal law and, to the extent not preempted thereby, by the laws of the State of Delaware. Capital One and you hereby consent and submit to the personal jurisdiction and venue of any state or federal court located in any city or county of Delaware for resolution of any and all claims, causes of action or disputes arising out of this Agreement. You and Capital One agree that the court shall not set aside the Committee's determinations unless there is clear and convincing evidence of bad faith or fraud.

8. Conflicts. In the event of any conflict between the provisions of the Plan as in effect on the Date of Grant and the provisions of this Agreement, except terms otherwise defined herein, the provisions of the Plan shall govern. All references herein to the Plan shall mean the Plan as in effect on the date hereof.

9. Bound by Plan. In consideration of the grant of the Restricted Stock Units, you agree that you will comply with such conditions as the Committee may impose on the Restricted Stock Units and be bound by the terms of the Plan.

10. Employment Status. This Agreement does not constitute a contract of employment nor does it alter your terminable at will status or otherwise guarantee future employment.

11. Binding Effect. This Agreement shall be binding upon, enforceable against, and inure to the benefit of you and your legatees, distributees and personal representatives, and Capital One and its successors and assigns.

12. Mandatory Holding Requirement.

(a) You agree that with respect to the Applicable Holding Shares you may not transfer, sell, pledge, hypothecate or otherwise dispose of such Applicable Holding Shares until the Holding Date; provided that the requirements set forth in this Section 12 shall immediately lapse and be of no further force and effect upon your death, Disability or termination of employment by Capital One without Cause or for Good Reason following a Change of Control, pursuant to Section 3(d).

(b) For purposes of this Section 12:

(i) "Applicable Holding Shares" means 50% of the Shares acquired hereunder (not including any Shares sold or retained by the Company or its designated agent to fund the payment of any tax withholding obligation, brokerage commission or fees payable in connection with the Shares) during your term of employment with the Company and during the one-year period after termination of your employment for any reason; and

(ii) "Holding Date" means the first anniversary of the date of acquisition of any Applicable Holding Shares.

13. Performance-Based Adjustments, Clawbacks and Other Forfeiture Events.

(a) Performance-Based Adjustment. The number of Restricted Stock Units vesting on the Scheduled Vesting Date shall be subject to reduction as follows:

(i) In the event that the Core Earnings of the Company for the Company's fiscal year ended immediately prior to such Scheduled Vesting Date, as certified by the Committee, are not positive (i.e., Core Earnings are not greater than zero):

(A) The number of Restricted Stock Units scheduled to vest on such Scheduled Vesting Date shall be reduced by 50%, rounding up to the nearest whole share; and

(B) the Committee shall determine the extent, if any, to which you are accountable for such outcome and, based on such determination, the Committee shall determine (I) whether all or any portion of the remaining Restricted Stock Units scheduled to vest on such Scheduled Vesting Date shall be forfeited and (II) whether the Scheduled Vesting Date shall be delayed for all or any portion of such Restricted Stock Units that are not so forfeited.

The Committee shall make the determinations referenced in Section 13(a)(i)(B) in its sole discretion, taking into account the factors set forth on Appendix A hereto.

(ii) For purposes of this Section 13(a), "Core Earnings" means the Company's net income available to common stockholders, excluding, on a tax-adjusted basis, the impact of (A) impairment or amortization of intangible assets, (B) the build or release of the allowance for loan and lease losses, calculated as the difference between the provision for loan and lease losses and charge-offs, net of recoveries, and (C) the change in the combined uncollectible finance charge and fee reserve.

(iii) In the event of any change to U.S. generally accepted accounting principles affecting the treatment or classification of any component of Core Earnings, such metric shall be calculated in a manner consistent with the definitions herein to the extent practicable.

Notwithstanding anything to the contrary in this Agreement and for the avoidance of doubt, in the event of a Change of Control of Capital One, there shall be no reduction pursuant to this Section 13(a) for any fiscal year ending after the date of such Change of Control.

(b) Clawback. All unvested Restricted Stock Units granted hereunder shall be subject to forfeiture in the event that the Committee in its sole discretion determines that (i) there has been misconduct resulting in either a violation of law or of Capital One policy or procedures, including but not limited to Capital One's Code of Business Conduct and Ethics, that in either case causes significant financial or reputational harm to Capital One and (ii) either you committed the misconduct or failed in your responsibility to manage or monitor the applicable conduct or risks. In the event that the Committee makes a determination as provided in the preceding sentence, all or any portion of the Restricted Stock Units that have not yet vested under this Agreement as of the date of such determination shall be forfeited in an amount as determined by the Committee in its sole discretion.

(c) Forfeiture Event. You agree to reimburse the Company with respect to the Restricted Stock Units to the extent required under Section 304 of the Sarbanes-Oxley Act of 2002 or as otherwise required by law.

14. Data Protection. You consent to the collection, processing and transfer (including international transfer) of your personally identifiable data in connection with the grant of the Restricted Stock Units and participation in the Plan.

15. Severability. This Agreement shall be enforceable to the fullest extent allowed by law. In the event that any provision of this Agreement is determined to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, then that provision shall be reduced, modified or otherwise conformed to the relevant law, judgment or determination to the degree necessary to render it valid and enforceable without affecting the validity, legality or enforceability of any other provision of this Agreement or the validity, legality or enforceability of such provision in any other jurisdiction. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be deemed severable from the remainder of this Agreement, and the remaining provisions contained in this Agreement shall be construed to preserve to the maximum permissible extent the intent and purposes of this Agreement.

16. Miscellaneous. In accepting the grant, you acknowledge and agree that:

(a) this Agreement is intended to comply with the applicable requirements of Section 409A of the Code and shall be limited, construed and interpreted in a manner so as to comply therewith;

(b) your obligations under this Agreement shall survive any termination of your employment with the Company for any reason;

(c) any of the Company's rights or remedies under this Agreement shall be cumulative and in addition to whatever other remedies the Company may have under law or equity;

(d) any recovery by the Company under this Agreement will be a recovery of Restricted Stock Units to which you were not entitled under this Agreement and is not to be construed in any manner as a penalty;

(e) the Company may, to the maximum extent permitted by applicable law and Section 409A of the Code, retain for itself funds or securities otherwise payable to you pursuant to this Agreement to satisfy any obligation or debt that you owe the Company, including any obligations hereunder. The Company may not retain such funds or securities until such time as they would otherwise be distributable to you in accordance with this Agreement;

(f) the Company reserves the right to impose other requirements on the Restricted Stock Units, any Shares acquired pursuant to the Restricted Stock Units, and your participation in the Plan, to the extent Capital One determines, in its sole discretion, that such other requirements are necessary or advisable in order to comply with local laws, rules and regulations, or to facilitate the administration of the Restricted Stock Units and the Plan. Such requirements may include (but are not limited to) requiring you to sign any agreements or undertakings that may be necessary to accomplish the foregoing; and

(g) Capital One from time to time distributes and makes available to associates disclosure documents, including a prospectus, relating to the Plan. You may also contact the HR Help Center to obtain copies of the Plan disclosure documents and the Plan. You should carefully read the Plan disclosure documents and the Plan. By accepting the benefits of this Agreement you acknowledge receipt of the Plan and the Plan disclosure documents and agree to be bound by the terms of this Agreement and the Plan. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by Capital One or a third-party designated by Capital One.

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed on their behalf.

CAPITAL ONE FINANCIAL CORPORATION

By: /s/ Jory Berson
Jory Berson
Chief Human Resources Officer

PARTICIPANT

By: SIGNED BY ELECTRONIC SIGNATURE
[FIRST NAME] [LAST NAME]

BY ELECTRONICALLY ACCEPTING THE AWARD, YOU AGREE THAT (i) SUCH ACCEPTANCE CONSTITUTES YOUR ELECTRONIC SIGNATURE IN EXECUTION OF THIS AGREEMENT; (ii) YOU AGREE TO BE BOUND BY THE PROVISIONS OF THE PLAN AND THE AGREEMENT; (iii) YOU HAVE REVIEWED THE PLAN AND THE AGREEMENT IN THEIR ENTIRETY, HAVE HAD AN OPPORTUNITY TO OBTAIN THE ADVICE OF COUNSEL PRIOR TO ACCEPTING THE AWARD AND FULLY UNDERSTAND ALL OF THE PROVISIONS OF THE PLAN AND THE AGREEMENT; (iv) YOU HAVE BEEN PROVIDED WITH A COPY OR ELECTRONIC ACCESS TO A COPY OF

THE U.S. PROSPECTUS FOR THE PLAN; AND (v) YOU HEREBY AGREE TO ACCEPT AS BINDING, CONCLUSIVE AND FINAL ALL DECISIONS OR INTERPRETATIONS OF THE COMMITTEE UPON ANY QUESTIONS ARISING UNDER THE PLAN AND THE AGREEMENT.

*** * * * ***

APPENDIX A

PERFORMANCE-BASED ADJUSTMENT DETERMINATION FACTORS

The Committee shall take into account the following factors for purposes of making any determinations referenced in Section 13(a)(i)(B) of the Agreement in its sole discretion:

- The extent to which Core Earnings were negative;
- Whether the outcome was the result of the performance of a line of business, control function or staff group for which you exercised direct or indirect responsibility;
- The extent to which your performance contributed to the outcome, including your performance with respect to risk management and oversight; and
- Such other factors as the Committee deems appropriate.

SUBSIDIARIES AS OF DECEMBER 31, 2018

Subsidiaries*	Jurisdiction of Incorporation or Organization	Parent Company
Capital One Bank, (USA), National Association ("COBNA")	United States	Capital One Financial Corporation
Capital One N.A. ("CONA")	United States	Capital One Financial Corporation

* Direct subsidiaries of Capital One Financial Corporation other than COBNA and CONA are not listed above because, in the aggregate, they would not constitute a significant subsidiary.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements, as listed below, of Capital One Financial Corporation and in the related Prospectuses, where applicable, of our reports dated February 20, 2019, with respect to the consolidated financial statements of Capital One Financial Corporation and the effectiveness of internal control over financial reporting of Capital One Financial Corporation, included in this Annual Report (the "Form 10-K") of Capital One Financial Corporation for the year ended December 31, 2018.

Registration Statement Number	Form	Description
033-99748	Form S-3	Dividend Reinvestment and Stock Purchase Plan
333-97125	Form S-3	Dividend Reinvestment and Stock Purchase Plan
033-86986	Form S-8	1994 Stock Incentive Plan
033-91790	Form S-8	1995 Non-Employee Directors Stock Incentive Plan
033-97032	Form S-8	Amendment to 1994 Stock Incentive Plan
333-42853	Form S-8	1994 Stock Incentive Plan - 1997 Special Option Program
333-45453	Form S-8	Associate Savings Plan
333-51637	Form S-8	1994 Stock Incentive Plan
333-51639	Form S-8	1994 Stock Incentive Plan - Tier 5 Special Option Program
333-57317	Form S-8	1994 Stock Incentive Plan - 1998 Special Option Program
333-70305	Form S-8	1994 Stock Incentive Plan - Supplemental Special Option Program
333-78067	Form S-8	1994 Stock Incentive Plan
333-78383	Form S-8	1994 Stock Incentive Plan - 1999 Performance-Based Option Program and Supplemental Special Option Program
333-78609	Form S-8	1999 Stock Incentive Plan
333-78635	Form S-8	1999 Non-Employee Directors Stock Incentive Plan
333-84693	Form S-8	1994 Stock Incentive Plan - Supplemental Special Option Program
333-91327	Form S-8	1994 Stock Incentive Plan
333-92345	Form S-8	1994 Stock Incentive Plan
333-43288	Form S-8	1994 Stock Incentive Plan
333-58628	Form S-8	1994 Stock Incentive Plan
333-72788	Form S-8	1994 Stock Incentive Plan - 2001 Performance-Based Option Program
333-72820	Form S-8	1999 Non-Employee Directors Stock Incentive Plan
333-72822	Form S-8	1994 Stock Incentive Plan
333-76726	Form S-8	1994 Stock Incentive Plan
333-97123	Form S-8	2002 Non-Executive Officer Stock Incentive Plan
333-97127	Form S-8	Associate Savings Plan
333-100488	Form S-8	2002 Associate Stock Purchase Plan
333-117920	Form S-8	2004 Stock Incentive Plan
333-124428	Form S-8	Plans of Hibernia Corporation
333-136281	Form S-8	2004 Stock Incentive Plan
333-133665	Form S-8	Plans of North Fork Bancorporation
333-151325	Form S-8	Amended and Restated Associate Stock Purchase Plan
333-158664	Form S-8	Second Amended and Restated 2004 Stock Incentive Plan
333-181736	Form S-8	Amended and Restated 2002 Associate Stock Purchase Plan
333-193683	Form S-8	Associate Savings Plan as Amended and Restated
333-195677	Form S-8	Third Amended and Restated 2004 Stock Incentive Plan
333-203125	Form S-3	Senior Debt Securities, Subordinated Debt Securities, Preferred Stock, Depositary Shares, Common Stock, Purchase Contracts, Warrants, Units

Registration Statement Number	Form	Description
333-219570	Form S-8	Common Stock Issued under the Amended and Restated 2002 Associate Stock Purchase Plan
333-223608	Form S-3	Senior Debt Securities, Subordinated Debt Securities, Preferred Stock, Depository Shares, Common Stock, Purchase Contracts, Warrants, Units

/s/ Ernst & Young LLP

Tysons, Virginia

February 20, 2019

**CERTIFICATION FOR ANNUAL REPORT ON FORM 10-K OF CAPITAL ONE FINANCIAL
CORPORATION AND CONSOLIDATED SUBSIDIARIES**

I, Richard D. Fairbank, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2018 of Capital One Financial Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 20, 2019

By: /s/ RICHARD D. FAIRBANK

Richard D. Fairbank
Chair, Chief Executive Officer and President

CERTIFICATION FOR ANNUAL REPORT ON FORM 10-K OF CAPITAL ONE FINANCIAL CORPORATION AND CONSOLIDATED SUBSIDIARIES

I, R. Scott Blackley, certify that,

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2018 of Capital One Financial Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 20, 2019

By: /s/ R. SCOTT BLACKLEY

R. Scott Blackley
Chief Financial Officer

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), I, Richard D. Fairbank, Chairman, Chief Executive Officer and President of Capital One Financial Corporation ("Capital One"), a Delaware corporation, do hereby certify that:

1. The Annual Report on Form 10-K for the year ended December 31, 2018 (the "Form 10-K") of Capital One fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Capital One.

Date: February 20, 2019

By: /s/ RICHARD D. FAIRBANK

Richard D. Fairbank
Chair, Chief Executive Officer and President

A signed original of this written statement required by Section 906 has been provided to Capital One and will be retained by Capital One and furnished to the Securities and Exchange Commission or its staff upon request.

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), I, R. Scott Blackley, Chief Financial Officer of Capital One Financial Corporation ("Capital One"), a Delaware corporation, do hereby certify that:

1. The Annual Report on Form 10-K for the year ended December 31, 2018 (the "Form 10-K") of Capital One fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Capital One.

Date: February 20, 2019

By: /s/ R. SCOTT BLACKLEY

R. Scott Blackley
Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Capital One and will be retained by Capital One and furnished to the Securities and Exchange Commission or its staff upon request.