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

FORM 10-Q

(Mark One)

☑ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Quarterly Period Ended June 30, 2019

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number:
1-6523

Exact name of registrant as specified in its charter:
Bank of America Corporation

State or other jurisdiction of incorporation or organization:
Delaware

IRS Employer Identification No.:
56-0906609

Address of principal executive offices:
Bank of America Corporate Center
100 N. Tryon Street
Charlotte, North Carolina 28255

Registrant's telephone number, including area code:
(704) 386-5681

Former name, former address and former fiscal year, if changed since last report:

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	BAC	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of Floating Rate Non-Cumulative Preferred Stock, Series E	BAC PrE	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 6.625% Non-Cumulative Preferred Stock, Series W	BAC PrW	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 6.500% Non-Cumulative Preferred Stock, Series Y	BAC PrY	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 6.200% Non-Cumulative Preferred Stock, Series CC	BAC PrC	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 6.000% Non-Cumulative Preferred Stock, Series EE	BAC PrA	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 6.000% Non-Cumulative Preferred Stock, Series GG	BAC PrB	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 5.875% Non-Cumulative Preferred Stock, Series HH	BAC PrK	New York Stock Exchange
7.25% Non-Cumulative Perpetual Convertible Preferred Stock, Series L	BAC PrL	New York Stock Exchange
Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 1	BML PrG	New York Stock Exchange

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 2	BML PrH	New York Stock Exchange
Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 4	BML PrJ	New York Stock Exchange
Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 5	BML PrL	New York Stock Exchange
Floating Rate Preferred Hybrid Income Term Securities of BAC Capital Trust XIII (and the guarantee related thereto)	BAC/PF	New York Stock Exchange
5.63% Fixed to Floating Rate Preferred Hybrid Income Term Securities of BAC Capital Trust XIV (and the guarantee related thereto)	BAC/PG	New York Stock Exchange
Income Capital Obligation Notes initially due December 15, 2066 of Bank of America Corporation	MER PrK	New York Stock Exchange
Senior Medium-Term Notes, Series A, Step Up Callable Notes, due November 28, 2031 of BofA Finance LLC (and the guarantee of the Registrant with respect thereto)	BAC/31B	New York Stock Exchange
Depositary Shares, each representing 1/1,000th interest in a share of 5.375% Non-Cumulative Preferred Stock, Series KK	BAC PrM	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☑ No ☐

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

Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐

Emerging growth company ☐

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

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2).

Yes ☐ No ☑

On July 26, 2019, there were 9,308,300,536 shares of Bank of America Corporation Common Stock outstanding.

Bank of America Corporation and Subsidiaries
June 30, 2019
Form 10-Q

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Part I. Financial Information

Part II. Other Information

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

Bank of America Corporation (the "Corporation") and its management may make certain statements that constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as "anticipates," "targets," "expects," "hopes," "estimates," "intends," "plans," "goals," "believes," "continue" and other similar expressions or future or conditional verbs such as "will," "may," "might," "should," "would" and "could." Forward-looking statements represent the Corporation's current expectations, plans or forecasts of its future results, revenues, expenses, efficiency ratio, capital measures, strategy, and future business and economic conditions more generally, and other future matters. These statements are not guarantees of future results or performance and involve certain known and unknown risks, uncertainties and assumptions that are difficult to predict and are often beyond the Corporation's control. Actual outcomes and results may differ materially from those expressed in, or implied by, any of these forward-looking statements.

You should not place undue reliance on any forward-looking statement and should consider the following uncertainties and risks, as well as the risks and uncertainties more fully discussed under Item 1A. Risk Factors of our 2018 Annual Report on Form 10-K and in any of the Corporation's subsequent Securities and Exchange Commission filings: the Corporation's potential claims, damages, penalties, fines and reputational damage resulting from pending or future litigation, regulatory proceedings and enforcement actions; the possibility that the Corporation's future liabilities may be in excess of its recorded liability and estimated range of possible loss for litigation, regulatory, and representations and warranties exposures; the possibility that the Corporation could face increased servicing, fraud, indemnity, contribution or other claims from one or more counterparties, including trustees, purchasers of loans, underwriters, issuers, monolines, private-label and other investors, or other parties involved in securitizations; the Corporation's ability to resolve representations and warranties repurchase and related claims, including claims brought by investors or trustees seeking to avoid the statute of limitations for repurchase claims; the risks related to the discontinuation of the London InterBank Offered Rate and other reference rates, including increased expenses and litigation and the effectiveness of hedging strategies; uncertainties about the financial stability and growth rates of non-U.S. jurisdictions, the risk that those jurisdictions may face difficulties servicing their sovereign debt, and related stresses on financial markets, currencies and trade, and the Corporation's exposures to such risks, including direct, indirect and operational; the impact of U.S. and global interest rates, inflation, currency exchange rates, economic conditions, trade policies, including tariffs, and potential geopolitical instability; the impact of the interest rate environment on the Corporation's business, financial condition and results of operations; the possibility that future credit losses may be higher than currently expected due to changes in economic assumptions, customer behavior, adverse developments with respect to U.S. or global economic conditions and other uncertainties; the Corporation's ability to achieve its expense targets and expectations regarding net interest income, net charge-offs, effective tax rate, loan growth or other projections; adverse changes to the Corporation's credit ratings from the major credit rating agencies; an inability to access capital markets or maintain deposits or borrowing costs; estimates of the fair value and other accounting values, subject to impairment assessments, of certain of the Corporation's assets and liabilities, including the Corporation's merchant services joint venture; the estimated or actual impact of changes in accounting standards or assumptions in applying those standards, including the new credit loss accounting standard; uncertainty regarding the content, timing and impact of regulatory capital and liquidity requirements; the impact of adverse changes to total loss-absorbing capacity requirements and/or global systemically important bank surcharges; the potential impact of actions of the Board of Governors of the Federal Reserve System on the Corporation's capital plans; the effect of regulations, other guidance or additional information on the impact from the Tax Cuts and Jobs Act; the impact of implementation and compliance with U.S. and international laws, regulations and regulatory interpretations, including, but not limited to, recovery and resolution planning requirements, Federal Deposit Insurance Corporation assessments, the Volcker Rule, fiduciary standards and derivatives regulations; a failure in or breach of the Corporation's operational or security systems or infrastructure, or those of third parties, including as a result of cyber-attacks; the impact on the Corporation's business, financial condition and results of operations from the planned exit of the United Kingdom from the European Union; the impact of a federal government shutdown and uncertainty regarding the federal government's debt limit; and other matters.

Forward-looking statements speak only as of the date they are made, and the Corporation undertakes no obligation to update any forward-looking statement to reflect the impact of circumstances or events that arise after the date the forward-looking statement was made.

Notes to the Consolidated Financial Statements referred to in Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) are incorporated by reference into the MD&A. Certain prior-period amounts have been reclassified to conform to current-period presentation. Throughout the MD&A, the Corporation uses certain acronyms and abbreviations which are defined in the Glossary.

Executive Summary

Business Overview

The Corporation is a Delaware corporation, a bank holding company (BHC) and a financial holding company. When used in this report, "the Corporation" may refer to Bank of America Corporation individually, Bank of America Corporation and its subsidiaries, or certain of Bank of America Corporation's subsidiaries or affiliates. Our principal executive offices are located in Charlotte, North Carolina. Through our banking and various nonbank subsidiaries throughout the U.S. and in international markets, we provide a diversified range of banking and nonbank financial services and products through four business segments: *Consumer Banking*, *Global Wealth & Investment Management (GWIM)*, *Global Banking* and *Global Markets*, with the remaining operations recorded in *All Other*. We operate our banking activities primarily under the Bank of America, National Association (Bank of America, N.A. or BANA) charter. At June 30, 2019, the Corporation had $2.4 trillion in assets and a headcount of approximately 209,000 employees.

As of June 30, 2019, we served clients through operations across the U.S., its territories and approximately 35 countries. Our retail banking footprint covers approximately 86 percent of the U.S. population, and we serve approximately 66 million consumer and small business clients with approximately 4,300 retail financial centers, approximately 16,600 ATMs, and leading digital banking platforms (www.bankofamerica.com) with more than 37 million active users, including approximately 28 million active mobile users. We offer industry-leading support to approximately three million small business owners. Our wealth management businesses, with client balances of $2.9 trillion, provide tailored solutions to meet client needs through a full set of investment management, brokerage, banking, trust and retirement products. We are a global leader in corporate and investment banking and trading across a broad range of asset classes serving corporations, governments, institutions and individuals around the world.

Recent Developments

Capital Management

Following completion of the Board of Governors of the Federal Reserve System's (Federal Reserve) 2019 Comprehensive Capital Analysis and Review (CCAR), the Federal Reserve did not object to the Corporation's capital plan, which is estimated to return $37 billion to common shareholders over the next four quarters through quarterly common stock dividends and common stock repurchases.

As part of the capital plan, on July 25, 2019, the Corporation's Board of Directors (the Board) declared a quarterly common stock dividend of $0.18 per share, an increase of 20 percent, payable on September 27, 2019 to shareholders of record as of September 6, 2019.

Also, on June 27, 2019, the Board authorized the repurchase of approximately $30.9 billion in common stock from July 1, 2019 through June 30, 2020, which includes approximately $900 million in repurchases to offset shares awarded under equity-based compensation plans during the same period. For additional information, see the Corporation's Current Report on Form 8-K filed with the Securities and Exchange Commission (SEC) on June 27, 2019.

Merchant Services Joint Venture

As previously disclosed in the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, a significant portion of the Corporation's merchant processing activity is performed by a joint venture, formed in 2009, in which the Corporation owns a 49 percent ownership interest. In June 2019, the joint venture partners agreed to extend the Corporation's right to terminate the joint venture at the end of its current term, which is June 2020, from one year to four months prior to that date. On July 29, 2019, the Corporation gave notice to the joint venture partner of the termination of the joint venture upon the conclusion of its current term, after which the Corporation expects to pursue its own merchant services strategy. In addition, the Corporation and the joint venture partner have an agreement to provide uninterrupted delivery of products and services to the joint venture merchants through at least June 2023. As a result of the above actions, the Corporation expects to incur a non-cash, pretax impairment charge of approximately $1.7 billion to $2.1 billion in the third quarter of 2019, which is estimated to reduce the Common equity tier 1 (CET1) ratio by 9 to 11 basis points (bps). The impairment charge will have no effect on the Corporation's capital plan as described in Recent Developments – Capital Management above. For additional information, see *Note 11 – Commitments and Contingencies* to the Consolidated Financial Statements.

U.K. Exit from the EU

In April 2019, the deadline for the U.K.'s withdrawal from the EU was extended to October 31, 2019; however, the U.K.'s withdrawal could occur sooner if a withdrawal agreement is reached prior to the deadline or could be extended beyond that date. Negotiations between the U.K. and the EU regarding the terms and conditions of the withdrawal are ongoing.

We conduct business in Europe, the Middle East and Africa primarily through our subsidiaries in the U.K., Ireland and France. For information on the changes we have implemented to enable us to continue to operate in the region, including establishing a bank and broker-dealer in the EU, see the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019. While we have taken measures to minimize operational disruption and prepare for various potential outcomes of the U.K.'s withdrawal from the EU, the preparedness of our counterparties and the relevant financial markets infrastructure remain outside our control. The global economic impact of the U.K.'s withdrawal from the EU remains uncertain and could result in regional and global financial market disruptions. In preparation for the withdrawal, we will continue to assess potential risks, including operational, regulatory and legal risks.

LIBOR and Other Benchmark Rates

Following the announcement by the U.K.'s Financial Conduct Authority in July 2017 that it will no longer persuade or require banks to submit rates for the London InterBank Offered Rate (LIBOR) after 2021, central banks and regulators around the world have commissioned working groups to find suitable replacements for Interbank Offered Rates (IBOR) and other benchmark rates and to implement financial benchmark reforms more generally. These actions have resulted in uncertainty regarding the use of alternative reference rates (ARRs) and could cause disruptions in a variety of markets, as well as adversely impact our business, operations and financial results.

To facilitate an orderly transition from IBORs and other benchmark rates to ARRs, the Corporation has established an enterprise-wide initiative led by senior management. The objective of this initiative is to identify, assess and monitor risks associated with the expected discontinuation or unavailability of benchmarks, including LIBOR, achieve operational readiness and engage impacted clients in connection with the transition to ARRs. The Corporation also continues to actively work with global regulators, industry working groups and trade associations to develop strategies for an effective transition to ARRs. As a part of its initiative, the Corporation is modifying systems, procedures and internal infrastructure to transition to ARRs. For example, the Corporation launched capabilities to support issuance and trading in products indexed to the new Secured Overnight Financing Rate, which is the alternative benchmark rate to U.S. dollar LIBOR recommended by the Alternative Reference Rates Committee, a group of private-market participants convened by the Federal Reserve Board and the Federal Reserve Bank of New York, and a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities. For more information on the expected replacement of LIBOR and other benchmark rates, see Item 1A. Risk Factors – Other and Executive Summary – Recent Developments – LIBOR and Other Benchmark Rates in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Financial Highlights

Table 1 Summary Income Statement and Selected Financial Data

(Dollars in millions, except per share information)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	Six Months Ended June 30 2019	Six Months Ended June 30 2018
Income statement				
Net interest income	**$ 12,189**	$ 11,828	**$ 24,564**	$ 23,597
Noninterest income	**10,895**	10,721	**21,524**	22,022
Total revenue, net of interest expense	**23,084**	22,549	**46,088**	45,619
Provision for credit losses	**857**	827	**1,870**	1,661
Noninterest expense	**13,268**	13,224	**26,492**	27,066
Income before income taxes	**8,959**	8,498	**17,726**	16,892
Income tax expense	**1,611**	1,714	**3,067**	3,190
Net income	**7,348**	6,784	**14,659**	13,702
Preferred stock dividends	**239**	318	**681**	746
Net income applicable to common shareholders	**$ 7,109**	$ 6,466	**$ 13,978**	$ 12,956
Per common share information				
Earnings	**$ 0.75**	$ 0.64	**$ 1.45**	$ 1.26
Diluted earnings	**0.74**	0.63	**1.45**	1.25
Dividends paid	**0.15**	0.12	**0.30**	0.24
Performance ratios				
Return on average assets	**1.23%**	1.17%	**1.24%**	1.19%
Return on average common shareholders' equity	**11.62**	10.75	**11.52**	10.80
Return on average tangible common shareholders' equity (1)	**16.24**	15.15	**16.13**	15.21
Efficiency ratio	**57.48**	58.65	**57.48**	59.33

Balance sheet	June 30 2019	December 31 2018
Total loans and leases	**$ 963,800**	$ 946,895
Total assets	**2,395,892**	2,354,507
Total deposits	**1,375,093**	1,381,476
Total liabilities	**2,124,484**	2,089,182
Total common shareholders' equity	**246,719**	242,999
Total shareholders' equity	**271,408**	265,325

(1) Return on average tangible common shareholders' equity is a non-GAAP financial measure. For more information and a corresponding reconciliation to the most closely related financial measures defined by accounting principles generally accepted in the United States of America (GAAP), see Non-GAAP Reconciliations on page 48.

Net income was $7.3 billion and $14.7 billion, or $0.74 and $1.45 per diluted share, for the three and six months ended June 30, 2019 compared to $6.8 billion and $13.7 billion, or $0.63 and $1.25 per diluted share, for the same periods in 2018. The improvement in net income for the three months ended June 30, 2019 was driven by an increase in net interest income and noninterest income partially offset by an increase in provision for credit losses and higher noninterest expense. The improvement in net income for the six months ended June 30, 2019 was due to higher net interest income as well as lower noninterest expense, partially offset by higher provision for credit losses and lower noninterest income.

Total assets increased $41.4 billion from December 31, 2018 to $2.4 trillion primarily driven by higher trading account assets in *Global Markets* due to increased client balances in Equities and increased levels of inventory in Fixed-Income, Currencies and Commodities (FICC) to facilitate expected client demand, higher loans and leases primarily due to continued commercial loan and residential mortgage growth, and an increase in other assets partially offset by lower federal funds sold and securities borrowed or purchased under agreements to resell and lower customer and other receivables.

Total liabilities increased $35.3 billion from December 31, 2018 to $2.1 trillion driven by higher trading account liabilities in FICC to facilitate expected client demand, an increase in long-term debt due to valuation adjustments, an increase in federal funds purchased and securities loaned or sold under agreements to repurchase driven by funding needs in the Equities businesses within *Global Markets* and an increase in other short-term borrowings as a result of higher Federal Home Loan Bank (FHLB) advances. Shareholders' equity increased $6.1 billion from December 31, 2018 primarily due to net income, market value increases on debt securities and issuances of preferred stock partially offset by returns of capital to shareholders through common stock repurchases and common and preferred stock dividends.

Net Interest Income

Net interest income increased $361 million to $12.2 billion, and $967 million to $24.6 billion for the three and six months ended June 30, 2019 compared to the same periods in 2018. Net interest yield on a fully taxable-equivalent (FTE) basis increased 3 bps to 2.44 percent, and 6 bps to 2.48 percent for the same periods. The increase for the three-month period was primarily driven by higher short-term interest rates, and for both periods, loan and deposit growth. Both long- and short-term interest rates have declined over the first half of 2019. We still expect net interest income for 2019 to grow as compared to 2018. If interest rates and other economic conditions remain stable with those of July 17, 2019, when we announced our second quarter 2019 results, net interest income is expected to grow approximately two percent. If, instead, short-term interest rates were to be lower as projected by the forward interest rate curve as a result of two implied Fed Funds rate cuts of 25 bps each this year, net interest income would be expected to grow approximately one percent. For more information on net interest yield and the FTE basis, see Supplemental Financial Data on page 6, and for more information on interest rate risk management, see Interest Rate Risk Management for the Banking Book on page 45.

Noninterest Income

Table 2 Noninterest Income

(Dollars in millions)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	Six Months Ended June 30 2019	Six Months Ended June 30 2018
Fees and commissions:				
Card income	**$ 1,446**	$ 1,483	**$ 2,821**	$ 2,885
Service charges	**1,903**	1,954	**3,742**	3,875
Investment and brokerage services	**3,470**	3,458	**6,830**	7,122
Investment banking fees	**1,371**	1,422	**2,635**	2,775
Total fees and commissions	**8,190**	8,317	**16,028**	16,657
Trading account income	**2,345**	2,151	**4,683**	4,704
Other income	**360**	253	**813**	661
Total noninterest income	**$ 10,895**	$ 10,721	**$ 21,524**	$ 22,022

Noninterest income increased $174 million to $10.9 billion, and decreased $498 million to $21.5 billion for the three and six months ended June 30, 2019 compared to the same periods in 2018. The following highlights the significant changes.

- Service charges decreased $51 million and $133 million primarily driven by lower fees due to policy changes in *Consumer,* lower treasury fees in *Global Banking* in both periods, and lower ATM volume in the six-month period.
- Investment and brokerage services income increased modestly for the three-month period and decreased $292 million for the six-month period. The decline was primarily due to lower average market valuations compared to the same period in 2018 and declines in transactional revenue and assets under management (AUM) pricing, partially offset by the positive impact of AUM flows. The decline in transactional revenue for the six-month period was driven by lower market volatility resulting in lower client activity.
- Investment banking fees decreased $51 million for the three-month period due to declines in debt underwriting and advisory fees, partially offset by higher equity underwriting fees. The $140 million decrease for the six-month period was due to declines in debt underwriting fees, partially offset by increases in advisory fees and equity underwriting fees.
- Trading account income increased $194 million for the three-month period primarily driven by lower interest rates, partially offset by weakness in foreign exchange and equity derivatives trading.
- Other income increased $107 million and $152 million primarily due to an increase in both periods in equity investment income and gains on sales of debt securities. Also, the second quarter of the prior year included a $729 million charge related to the redemption of certain trust preferred securities, partially offset by a $572 million gain from the sale of certain non-core mortgage loans.

Provision for Credit Losses

The provision for credit losses increased $30 million to $857 million, and $209 million to $1.9 billion for the three and six months ended June 30, 2019 compared to the same periods in 2018. The increases were primarily driven by energy reserve releases in the prior-year periods and portfolio seasoning in the U.S. credit card portfolio, partially offset by the impact of recoveries recorded in connection with sales of previously charged-off non-core home equity loans. The increase in the six-month period also included a single-name utility client charge-off. For more information on the provision for credit losses, see Provision for Credit Losses on page 41.

Noninterest Expense

Table 3 Noninterest Expense

(Dollars in millions)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	Six Months Ended June 30 2019	Six Months Ended June 30 2018
Compensation and benefits	**$ 7,972**	$ 7,944	**$ 16,221**	$ 16,424
Occupancy and equipment	**1,640**	1,591	**3,245**	3,198
Information processing and communications	**1,157**	1,121	**2,321**	2,286
Product delivery and transaction related	**709**	706	**1,371**	1,462
Marketing	**528**	395	**970**	740
Professional fees	**409**	399	**769**	780
Other general operating	**853**	1,068	**1,595**	2,176
Total noninterest expense	**$ 13,268**	$ 13,224	**$ 26,492**	$ 27,066

Noninterest expense increased $44 million to $13.3 billion, and decreased $574 million to $26.5 billion for the three and six months ended June 30, 2019 compared to the same periods in 2018. The decrease in the six-month period was primarily due to efficiency savings, lower Federal Deposit Insurance Corporation (FDIC) expense and lower amortization of intangibles expense, partially offset by increased costs associated with investments in the businesses, including brand-related marketing costs.

Income Tax Expense

Table 4 Income Tax Expense

(Dollars in millions)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	Six Months Ended June 30 2019	Six Months Ended June 30 2018
Income before income taxes	**$ 8,959**	$ 8,498	**$ 17,726**	$ 16,892
Income tax expense	**1,611**	1,714	**3,067**	3,190
Effective tax rate	**18.0%**	20.2%	**17.3%**	18.9%

The effective tax rates for the three and six months ended June 30, 2019 and 2018 reflect the impact of our recurring tax preference benefits and certain discrete tax items, primarily tax benefits related to stock-based compensation in the six-month effective rates.

We expect the effective tax rate for the rest of 2019 to be approximately 19 percent, absent unusual items.

Supplemental Financial Data

In this Form 10-Q, we present certain non-GAAP financial measures. Non-GAAP financial measures exclude certain items or otherwise include components that differ from the most directly comparable measures calculated in accordance with GAAP. Non-GAAP financial measures are provided as additional useful information to assess our financial condition, results of operations (including period-to-period operating performance) or compliance with prospective regulatory requirements. These non-GAAP financial measures are not intended as a substitute for GAAP financial measures and may not be defined or calculated the same way as non-GAAP financial measures used by other companies.

We view net interest income and related ratios and analyses on an FTE basis, which when presented on a consolidated basis are non-GAAP financial measures. To derive the FTE basis, net interest income is adjusted to reflect tax-exempt income on an equivalent before-tax basis with a corresponding increase in income tax expense. For purposes of this calculation, we use the federal statutory tax rate of 21 percent and a representative state tax rate. Net interest yield, which measures the basis points we earn over the cost of funds, utilizes net interest income (and thus total revenue) on an FTE basis. We believe that presentation of these items on an FTE basis allows for comparison of amounts from both taxable and tax-exempt sources and is consistent with industry practices.

We may present certain key performance indicators and ratios excluding certain items (e.g., debit valuation adjustment (DVA) gains (losses)) which result in non-GAAP financial measures. We believe that the presentation of measures that exclude these items is useful because such measures provide additional information to assess the underlying operational performance and trends of our businesses and to allow better comparison of period-to-period operating performance.

We also evaluate our business based on certain ratios that utilize tangible equity, a non-GAAP financial measure. Tangible equity represents an adjusted shareholders' equity or common shareholders' equity amount which has been reduced by goodwill and intangible assets (excluding mortgage servicing rights (MSRs)), net of related deferred tax liabilities. These measures are used to evaluate our use of equity. In addition, profitability, relationship and investment models use both return on average tangible common shareholders' equity and return on average tangible shareholders' equity as key measures to support our overall growth goals. These ratios are as follows:

- Return on average tangible common shareholders' equity measures our net income applicable to common shareholders as a percentage of adjusted average common shareholders' equity. The tangible common equity ratio represents adjusted ending common shareholders' equity divided by total assets less goodwill and intangible assets (excluding MSRs), net of related deferred tax liabilities.
- Return on average tangible shareholders' equity measures our net income applicable to common shareholders as a percentage of adjusted average total shareholders' equity. The tangible equity ratio represents adjusted ending shareholders' equity divided by total assets less goodwill and intangible assets (excluding MSRs), net of related deferred tax liabilities.
- Tangible book value per common share represents adjusted ending common shareholders' equity divided by ending common shares outstanding.

We believe that the use of ratios that utilize tangible equity provides additional useful information because they present measures of those assets that can generate income. Tangible book value per common share provides additional useful information about the level of tangible assets in relation to outstanding shares of common stock.

The aforementioned supplemental data and performance measures are presented in Tables 5 and 6.

For more information on the reconciliation of these non-GAAP financial measures to the corresponding GAAP financial measures, see Non-GAAP Reconciliations on page 48.

Table 5 Selected Quarterly Financial Data

(In millions, except per share information)	2019 Quarter		2018 Quarters		
	Second	First	Fourth	Third	Second
Income statement					
Net interest income	**$ 12,189**	$ 12,375	$ 12,504	$ 12,061	$ 11,828
Noninterest income	**10,895**	10,629	10,173	10,663	10,721
Total revenue, net of interest expense	**23,084**	23,004	22,677	22,724	22,549
Provision for credit losses	**857**	1,013	905	716	827
Noninterest expense	**13,268**	13,224	13,074	13,014	13,224
Income before income taxes	**8,959**	8,767	8,698	8,994	8,498
Income tax expense	**1,611**	1,456	1,420	1,827	1,714
Net income	**7,348**	7,311	7,278	7,167	6,784
Net income applicable to common shareholders	**7,109**	6,869	7,039	6,701	6,466
Average common shares issued and outstanding	**9,523.2**	9,725.9	9,855.8	10,031.6	10,181.7
Average diluted common shares issued and outstanding	**9,559.6**	9,787.3	9,996.0	10,170.8	10,309.4
Performance ratios					
Return on average assets	**1.23%**	1.26%	1.24%	1.23%	1.17%
Four-quarter trailing return on average assets (1)	**1.24**	1.22	1.21	1.00	0.93
Return on average common shareholders' equity	**11.62**	11.42	11.57	10.99	10.75
Return on average tangible common shareholders' equity (2)	**16.24**	16.01	16.29	15.48	15.15
Return on average shareholders' equity	**11.00**	11.14	10.95	10.74	10.26
Return on average tangible shareholders' equity (2)	**14.88**	15.10	14.90	14.61	13.95
Total ending equity to total ending assets	**11.33**	11.23	11.27	11.21	11.53
Total average equity to total average assets	**11.17**	11.28	11.30	11.42	11.42
Dividend payout	**19.95**	21.20	20.90	22.35	18.83
Per common share data					
Earnings	**$ 0.75**	$ 0.71	$ 0.71	$ 0.67	$ 0.64
Diluted earnings	**0.74**	0.70	0.70	0.66	0.63
Dividends paid	**0.15**	0.15	0.15	0.15	0.12
Book value	**26.41**	25.57	25.13	24.33	24.07
Tangible book value (2)	**18.92**	18.26	17.91	17.23	17.07
Market capitalization	**$ 270,935**	$ 263,992	$ 238,251	$ 290,424	$ 282,259
Average balance sheet					
Total loans and leases	**$ 950,525**	$ 944,020	$ 934,721	$ 930,736	$ 934,818
Total assets	**2,399,051**	2,360,992	2,334,586	2,317,829	2,322,678
Total deposits	**1,375,450**	1,359,864	1,344,951	1,316,345	1,300,659
Long-term debt	**201,007**	196,726	201,056	203,239	199,448
Common shareholders' equity	**245,438**	243,891	241,372	241,812	241,313
Total shareholders' equity	**267,975**	266,217	263,698	264,653	265,181
Asset quality					
Allowance for credit losses (3)	**$ 10,333**	$ 10,379	$ 10,398	$ 10,526	$ 10,837
Nonperforming loans, leases and foreclosed properties (4)	**4,452**	5,145	5,244	5,449	6,181
Allowance for loan and lease losses as a percentage of total loans and leases outstanding (4)	**1.00%**	1.02%	1.02%	1.05%	1.08%
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases (4)	**228**	197	194	189	170
Net charge-offs	**$ 887**	$ 991	$ 924	$ 932	$ 996
Annualized net charge-offs as a percentage of average loans and leases outstanding (4)	**0.38%**	0.43%	0.39%	0.40%	0.43%
Capital ratios at period end (5)					
Common equity tier 1 capital	**11.7%**	11.6%	11.6%	11.4%	11.4%
Tier 1 capital	**13.3**	13.1	13.2	12.9	13.0
Total capital	**15.4**	15.2	15.1	14.7	14.8
Tier 1 leverage	**8.4**	8.4	8.4	8.3	8.4
Supplementary leverage ratio	**6.8**	6.8	6.8	6.7	6.7
Tangible equity (2)	**8.7**	8.5	8.6	8.5	8.7
Tangible common equity (2)	**7.6**	7.6	7.6	7.5	7.7
Total loss-absorbing capacity and long-term debt metrics (6)					
Total loss-absorbing capacity to risk-weighted assets	**25.5%**	24.8%			
Total loss-absorbing capacity to supplementary leverage exposure	**13.0**	12.8			

Eligible long-term debt to risk-weighted assets	**11.8**	11.4
Eligible long-term debt to supplementary leverage exposure	**6.0**	5.9

(1) Calculated as total net income for four consecutive quarters divided by annualized average assets for four consecutive quarters.
(2) Tangible equity ratios and tangible book value per share of common stock are non-GAAP financial measures. For more information on these ratios, see Supplemental Financial Data on page 6 and for corresponding reconciliations to the most closely related financial measures defined by GAAP, see Non-GAAP Reconciliations on page 48.
(3) Includes the allowance for loan and lease losses and the reserve for unfunded lending commitments.
(4) Balances and ratios do not include loans accounted for under the fair value option. For additional exclusions from nonperforming loans, leases and foreclosed properties, see Consumer Portfolio Credit Risk Management – Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity on page 34 and corresponding Table 28 and Commercial Portfolio Credit Risk Management – Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity on page 38 and corresponding Table 35.
(5) For additional information, including which approach is used to assess capital adequacy, see Capital Management on page 22.
(6) Effective January 1, 2019, the Corporation became subject to minimum total loss-absorbing capacity and long-term debt requirements. For more information, see Capital Management on page 22.

Table 6 Selected Year-to-Date Financial Data

	Six Months Ended June 30	
(In millions, except per share information)	**2019**	2018
Income statement		
Net interest income	**$ 24,564**	$ 23,597
Noninterest income	**21,524**	22,022
Total revenue, net of interest expense	**46,088**	45,619
Provision for credit losses	**1,870**	1,661
Noninterest expense	**26,492**	27,066
Income before income taxes	**17,726**	16,892
Income tax expense	**3,067**	3,190
Net income	**14,659**	13,702
Net income applicable to common shareholders	**13,978**	12,956
Average common shares issued and outstanding	**9,624.0**	10,251.7
Average diluted common shares issued and outstanding	**9,672.4**	10,389.9
Performance ratios		
Return on average assets	**1.24%**	1.19%
Return on average common shareholders' equity	**11.52**	10.80
Return on average tangible common shareholders' equity (1)	**16.13**	15.21
Return on average shareholder's equity	**11.07**	10.41
Return on average tangible shareholders' equity (1)	**14.99**	14.16
Total ending equity to total ending assets	**11.33**	11.53
Total average equity to total average assets	**11.22**	11.42
Dividend payout	**20.57**	18.94
Per common share data		
Earnings	**$ 1.45**	$ 1.26
Diluted earnings	**1.45**	1.25
Dividends paid	**0.30**	0.24
Book value	**26.41**	24.07
Tangible book value (1)	**18.92**	17.07

(1) Tangible equity ratios and tangible book value per share of common stock are non-GAAP financial measures. For more information on these ratios and for corresponding reconciliations to the most closely related financial measure defined by GAAP, see Non-GAAP Reconciliations on page 48.

Table 7 Quarterly Average Balances and Interest Rates - FTE Basis

(Dollars in millions)	Average Balance	Interest Income/ Expense	Yield/ Rate	Average Balance	Interest Income/ Expense	Yield/ Rate
	Second Quarter 2019			Second Quarter 2018		
Earning assets						
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	**$ 122,395**	**$ 495**	**1.62%**	$ 144,983	$ 487	1.35%
Time deposits placed and other short-term investments	**9,798**	**61**	**2.51**	10,015	48	1.91
Federal funds sold and securities borrowed or purchased under agreements to resell	**281,085**	**1,309**	**1.87**	251,880	709	1.13
Trading account assets	**146,865**	**1,337**	**3.65**	132,799	1,232	3.72
Debt securities	**446,447**	**3,047**	**2.72**	429,191	2,885	2.64
Loans and leases (1):						
Residential mortgage	**215,822**	**1,899**	**3.52**	206,083	1,798	3.49
Home equity	**45,944**	**587**	**5.12**	54,863	640	4.68
U.S. credit card	**93,627**	**2,511**	**10.76**	93,531	2,298	9.86
Direct/Indirect and other consumer (2)	**90,453**	**830**	**3.68**	93,620	766	3.28
Total consumer	**445,846**	**5,827**	**5.24**	448,097	5,502	4.92
U.S. commercial	**318,243**	**3,382**	**4.26**	305,372	2,983	3.92
Non-U.S. commercial	**103,844**	**894**	**3.45**	99,255	816	3.30
Commercial real estate (3)	**61,778**	**720**	**4.67**	60,653	646	4.27
Commercial lease financing	**20,814**	**172**	**3.32**	21,441	168	3.14
Total commercial	**504,679**	**5,168**	**4.11**	486,721	4,613	3.80
Total loans and leases	**950,525**	**10,995**	**4.64**	934,818	10,115	4.34
Other earning assets	**66,607**	**1,129**	**6.79**	78,244	1,047	5.36
Total earning assets (4)	**2,023,722**	**18,373**	**3.64**	1,981,930	16,523	3.34
Cash and due from banks	**25,951**			25,329		
Other assets, less allowance for loan and lease losses	**349,378**			315,419		
Total assets	**$ 2,399,051**			$ 2,322,678		
Interest-bearing liabilities						
U.S. interest-bearing deposits:						
Savings	**$ 52,987**	**$ 2**	**0.01%**	$ 55,734	$ 2	0.01%
NOW and money market deposit accounts	**737,095**	**1,228**	**0.67**	664,002	536	0.32
Consumer CDs and IRAs	**45,375**	**105**	**0.93**	39,953	36	0.36
Negotiable CDs, public funds and other deposits	**69,966**	**408**	**2.35**	44,539	197	1.78
Total U.S. interest-bearing deposits	**905,423**	**1,743**	**0.77**	804,228	771	0.38
Non-U.S. interest-bearing deposits:						
Banks located in non-U.S. countries	**2,033**	**5**	**0.96**	2,329	11	1.89
Governments and official institutions	**179**	**—**	**0.05**	1,113	—	0.01
Time, savings and other	**68,706**	**217**	**1.26**	65,326	161	0.99
Total non-U.S. interest-bearing deposits	**70,918**	**222**	**1.25**	68,768	172	1.00
Total interest-bearing deposits	**976,341**	**1,965**	**0.81**	872,996	943	0.43
Federal funds purchased, securities loaned or sold under agreements to repurchase, short-term borrowings and other interest-bearing liabilities	**278,198**	**1,997**	**2.89**	272,777	1,462	2.15
Trading account liabilities	**47,022**	**319**	**2.72**	52,228	348	2.67
Long-term debt	**201,007**	**1,754**	**3.49**	199,448	1,788	3.59
Total interest-bearing liabilities (4)	**1,502,568**	**6,035**	**1.61**	1,397,449	4,541	1.30
Noninterest-bearing sources:						
Noninterest-bearing deposits	**399,109**			427,663		
Other liabilities (5)	**229,399**			232,385		
Shareholders' equity	**267,975**			265,181		
Total liabilities and shareholders' equity	**$ 2,399,051**			$ 2,322,678		
Net interest spread			**2.03%**			2.04%
Impact of noninterest-bearing sources			**0.41**			0.37
Net interest income/yield on earning assets (6)		**$ 12,338**	**2.44%**		$ 11,982	2.41%

(1) Nonperforming loans are included in the respective average loan balances. Income on these nonperforming loans is generally recognized on a cost recovery basis.
(2) Includes non-U.S. consumer loans of $2.9 billion for both the second quarter of 2019 and 2018.
(3) Includes U.S. commercial real estate loans of $57.0 billion and $56.4 billion, and non-U.S. commercial real estate loans of $4.8 billion and $4.2 billion for the second quarter of 2019 and 2018.
(4) Interest income includes the impact of interest rate risk management contracts, which decreased interest income on the underlying assets by $53 million and $49 million for the second quarter of 2019 and 2018. Interest expense includes the impact of interest rate risk management contracts, which increased interest expense on the underlying liabilities by $9 million and $33 million for the second quarter of 2019 and 2018. For more information, see Interest Rate Risk Management for the Banking Book on page 45.
(5) Includes $35.0 billion and $29.7 billion of structured notes and liabilities for the second quarter of 2019 and 2018.
(6) Net interest income includes FTE adjustments of $149 million and $154 million for the second quarter of 2019 and 2018.

Table 8 Year-to-Date Average Balances and Interest Rates - FTE Basis

(Dollars in millions)	Average Balance 2019	Interest Income/ Expense 2019	Yield/ Rate 2019	Average Balance 2018	Interest Income/ Expense 2018	Yield/ Rate 2018
	Six Months Ended June 30					
Earning assets						
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	**$ 128,644**	**$ 1,001**	**1.57%**	$ 142,628	$ 909	1.29%
Time deposits placed and other short-term investments	**9,129**	**120**	**2.65**	10,398	109	2.12
Federal funds sold and securities borrowed or purchased under agreements to resell	**277,715**	**2,504**	**1.82**	250,110	1,331	1.07
Trading account assets	**143,565**	**2,678**	**3.76**	131,966	2,379	3.63
Debt securities	**444,077**	**6,195**	**2.78**	431,133	5,715	2.61
Loans and leases (1):						
Residential mortgage	**213,014**	**3,761**	**3.53**	205,460	3,580	3.49
Home equity	**46,812**	**1,180**	**5.07**	55,902	1,283	4.62
U.S. credit card	**94,313**	**5,041**	**10.78**	93,975	4,611	9.89
Direct/Indirect and other consumer (2)	**90,442**	**1,651**	**3.68**	94,451	1,494	3.19
Total consumer	**444,581**	**11,633**	**5.26**	449,788	10,968	4.90
U.S. commercial	**317,173**	**6,731**	**4.28**	302,626	5,700	3.80
Non-U.S. commercial	**102,925**	**1,780**	**3.49**	99,379	1,554	3.15
Commercial real estate (3)	**61,321**	**1,422**	**4.68**	59,946	1,233	4.15
Commercial lease financing	**21,291**	**368**	**3.46**	21,636	343	3.17
Total commercial	**502,710**	**10,301**	**4.13**	483,587	8,830	3.68
Total loans and leases	**947,291**	**21,934**	**4.66**	933,375	19,798	4.27
Other earning assets	**67,134**	**2,264**	**6.79**	81,277	2,031	5.03
Total earning assets (4)	**2,017,555**	**36,696**	**3.66**	1,980,887	32,272	3.28
Cash and due from banks	**25,888**			25,800		
Other assets, less allowance for loan and lease losses	**336,684**			317,582		
Total assets	**$ 2,380,127**			$ 2,324,269		
Interest-bearing liabilities						
U.S. interest-bearing deposits:						
Savings	**$ 53,278**	**$ 3**	**0.01%**	$ 55,243	$ 3	0.01%
NOW and money market deposit accounts	**734,077**	**2,385**	**0.66**	661,531	942	0.29
Consumer CDs and IRAs	**43,593**	**179**	**0.83**	40,629	69	0.34
Negotiable CDs, public funds and other deposits	**67,981**	**775**	**2.30**	42,600	354	1.68
Total U.S. interest-bearing deposits	**898,929**	**3,342**	**0.75**	800,003	1,368	0.34
Non-U.S. interest-bearing deposits:						
Banks located in non-U.S. countries	**2,209**	**11**	**0.99**	2,287	20	1.79
Governments and official institutions	**178**	**—**	**0.08**	1,133	—	0.01
Time, savings and other	**66,472**	**407**	**1.23**	66,325	315	0.95
Total non-U.S. interest-bearing deposits	**68,859**	**418**	**1.22**	69,745	335	0.97
Total interest-bearing deposits	**967,788**	**3,760**	**0.78**	869,748	1,703	0.39
Federal funds purchased, securities loaned or sold under agreements to repurchase, short-term borrowings and other interest-bearing liabilities	**271,716**	**3,849**	**2.86**	276,269	2,597	1.90
Trading account liabilities	**46,312**	**664**	**2.89**	53,787	705	2.64
Long-term debt	**198,878**	**3,557**	**3.59**	198,622	3,366	3.40
Total interest-bearing liabilities (4)	**1,484,694**	**11,830**	**1.61**	1,398,426	8,371	1.21
Noninterest-bearing sources:						
Noninterest-bearing deposits	**399,912**			429,225		
Other liabilities (5)	**228,420**			231,288		
Shareholders' equity	**267,101**			265,330		
Total liabilities and shareholders' equity	**$ 2,380,127**			$ 2,324,269		
Net interest spread			**2.05%**			2.07%
Impact of noninterest-bearing sources			**0.43**			0.35
Net interest income/yield on earning assets (6)		**$ 24,866**	**2.48%**		$ 23,901	2.42%

(1) Nonperforming loans are included in the respective average loan balances. Income on these nonperforming loans is generally recognized on a cost recovery basis.
(2) Includes non-U.S. consumer loans of $2.9 billion for both the six months ended June 30, 2019 and 2018.
(3) Includes U.S. commercial real estate loans of $56.7 billion and $55.9 billion, and non-U.S. commercial real estate loans of $4.6 billion and $4.1 billion for the six months ended June 30, 2019 and 2018.
(4) Interest income includes the impact of interest rate risk management contracts, which decreased interest income on the underlying assets by $126 million and $56 million for the six months ended June 30, 2019 and 2018. Interest expense includes the impact of interest rate risk management contracts, which increased (decreased) interest expense on the underlying liabilities by $59 million and $(171) million for the six months ended June 30, 2019 and 2018. For more information, see Interest Rate Risk Management for the Banking Book on page 45.
(5) Includes $33.2 billion and $30.8 billion of structured notes and liabilities for the six months ended June 30, 2019 and 2018.

(6) Net interest income includes FTE adjustments of $302 million and $304 million for the six months ended June 30, 2019 and 2018.

Business Segment Operations

Segment Description and Basis of Presentation

We report our results of operations through the following four business segments: *Consumer Banking*, *GWIM*, *Global Banking* and *Global Markets*, with the remaining operations recorded in *All Other*. We manage our segments and report their results on an FTE basis. We periodically review capital allocated to our businesses and allocate capital annually during the strategic and capital planning processes. We utilize a methodology that considers the effect of regulatory capital requirements in addition to internal risk-based capital models. Our internal risk-based capital models use a risk-adjusted methodology incorporating each segment's credit, market, interest rate, business and operational risk components. For more information on the nature of these risks, see Managing Risk on page 22. The capital allocated to the business segments is referred to as allocated capital. Allocated equity in the reporting units is comprised of allocated capital plus capital for the portion of goodwill and intangibles specifically assigned to the reporting unit. For more information, see *Note 8 – Goodwill and Intangible Assets* to the Consolidated Financial Statements.

For more information on our presentation of financial information on an FTE basis, see Supplemental Financial Data on page 6, and for reconciliations to consolidated total revenue, net income and period-end total assets, see *Note 18 – Business Segment Information* to the Consolidated Financial Statements.

Consumer Banking

	Deposits		Consumer Lending		Total Consumer Banking		
	Three Months Ended June 30						
(Dollars in millions)	**2019**	2018	**2019**	2018	**2019**	2018	% Change
Net interest income	**$ 4,363**	$ 3,895	**$ 2,753**	$ 2,698	**$ 7,116**	$ 6,593	8 %
Noninterest income:							
Card income	**(6)**	(8)	**1,274**	1,300	**1,268**	1,292	(2)
Service charges	**1,044**	1,072	**1**	—	**1,045**	1,072	(3)
All other income	**210**	188	**78**	88	**288**	276	4
Total noninterest income	**1,248**	1,252	**1,353**	1,388	**2,601**	2,640	(1)
Total revenue, net of interest expense	**5,611**	5,147	**4,106**	4,086	**9,717**	9,233	5
Provision for credit losses	**44**	46	**903**	898	**947**	944	—
Noninterest expense	**2,663**	2,644	**1,744**	1,723	**4,407**	4,367	1
Income before income taxes	**2,904**	2,457	**1,459**	1,465	**4,363**	3,922	11
Income tax expense	**712**	627	**357**	373	**1,069**	1,000	7
Net income	**$ 2,192**	$ 1,830	**$ 1,102**	$ 1,092	**$ 3,294**	$ 2,922	13
Effective tax rate (1)					**24.5%**	25.5%	
Net interest yield	**2.49%**	2.28%	**3.79%**	3.92%	**3.87**	3.67	
Return on average allocated capital	**73**	61	**18**	18	**36**	32	
Efficiency ratio	**47.51**	51.40	**42.45**	42.17	**45.37**	47.31	

Balance Sheet

	Three Months Ended June 30						
Average	**2019**	2018	**2019**	2018	**2019**	2018	% Change
Total loans and leases	**$ 5,333**	$ 5,191	**$ 291,055**	$ 275,498	**$ 296,388**	$ 280,689	6 %
Total earning assets (2)	**702,662**	686,324	**291,492**	276,436	**737,678**	720,871	2
Total assets (2)	**734,117**	714,494	**301,743**	287,377	**779,384**	759,982	3
Total deposits	**701,790**	682,202	**5,238**	5,610	**707,028**	687,812	3
Allocated capital	**12,000**	12,000	**25,000**	25,000	**37,000**	37,000	—

(1) Estimated at the segment level only.

(2) In segments and businesses where the total of liabilities and equity exceeds assets, we allocate assets from *All Other* to match the segments' and businesses' liabilities and allocated shareholders' equity. As a result, total earning assets and total assets of the businesses may not equal total *Consumer Banking*.

	Deposits		Consumer Lending		Total Consumer Banking		
	Six Months Ended June 30						
(Dollars in millions)	2019	2018	2019	2018	2019	2018	% Change
Net interest income	$ 8,670	$ 7,607	$ 5,552	$ 5,463	$ 14,222	$ 13,070	9 %
Noninterest income:							
Card income	(13)	(15)	2,478	2,541	2,465	2,526	(2)
Service charges	2,064	2,115	1	1	2,065	2,116	(2)
All other income	442	320	155	182	597	502	19
Total noninterest income	2,493	2,420	2,634	2,724	5,127	5,144	—
Total revenue, net of interest expense	11,163	10,027	8,186	8,187	19,349	18,214	6
Provision for credit losses	90	87	1,831	1,792	1,921	1,879	2
Noninterest expense	5,302	5,366	3,461	3,549	8,763	8,915	(2)
Income before income taxes	5,771	4,574	2,894	2,846	8,665	7,420	17
Income tax expense	1,414	1,167	709	726	2,123	1,893	12
Net income	$ 4,357	$ 3,407	$ 2,185	$ 2,120	$ 6,542	$ 5,527	18
Effective tax rate (1)					24.5%	25.5%	
Net interest yield	2.51%	2.26%	3.87%	4.00%	3.92	3.69	
Return on average allocated capital	73	57	18	17	36	30	
Efficiency ratio	47.51	53.51	42.27	43.36	45.29	48.95	

Balance Sheet

	Six Months Ended June 30						
Average	2019	2018	2019	2018	2019	2018	% Change
Total loans and leases	$ 5,323	$ 5,180	$ 289,017	$ 274,946	$ 294,340	$ 280,126	5 %
Total earning assets (2)	697,883	680,013	289,387	275,597	732,543	714,345	3
Total assets (2)	729,332	707,992	299,747	286,625	774,351	753,352	3
Total deposits	697,008	675,630	5,003	5,489	702,011	681,119	3
Allocated capital	12,000	12,000	25,000	25,000	37,000	37,000	—

Period end	June 30 2019	December 31 2018	June 30 2019	December 31 2018	June 30 2019	December 31 2018	% Change
Total loans and leases	$ 5,340	$ 5,470	$ 295,072	$ 288,865	$ 300,412	$ 294,335	2 %
Total earning assets (2)	708,382	694,672	295,561	289,249	744,219	728,813	2
Total assets (2)	740,485	724,019	306,202	299,970	786,963	768,881	2
Total deposits	708,162	691,666	6,061	4,480	714,223	696,146	3

See page 11 for footnotes.

Consumer Banking, which is comprised of Deposits and Consumer Lending, offers a diversified range of credit, banking and investment products and services to consumers and small businesses. For more information about *Consumer Banking*, including our Deposits and Consumer Lending businesses, see Business Segment Operations in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Consumer Banking Results

Three-Month Comparison

Net income for *Consumer Banking* increased $372 million to $3.3 billion primarily driven by higher net interest income which increased $523 million to $7.1 billion primarily due to growth in deposits and loans as well as the impact of higher short-term interest rates. Noninterest income decreased $39 million to $2.6 billion driven by lower card income, service charges and mortgage banking income, partially offset by the results from asset and liability management (ALM) activities.

Noninterest expense increased $40 million to $4.4 billion primarily driven by continued investments in the business, including marketing, and increases in primary sales professionals combined with investments in new and renovated financial centers, and digital capabilities. These increases were largely offset by lower FDIC expense and operating efficiencies.

The return on average allocated capital was 36 percent, up from 32 percent, driven by higher net income. For additional information on capital allocations, see Business Segment Operations on page 11.

Six-Month Comparison

Net income for *Consumer Banking* increased $1.0 billion to $6.5 billion primarily driven by an increase in net interest income and lower noninterest expense. Net interest income increased $1.2 billion to $14.2 billion and noninterest income decreased $17 million to $5.1 billion. These were primarily driven by the same factors as described in the three-month discussion.

The provision for credit losses increased $42 million to $1.9 billion due to portfolio seasoning in the U.S. credit card portfolio. Noninterest expense decreased $152 million to $8.8 billion primarily driven by lower FDIC expense and operating efficiencies. These decreases were partially offset by continued investments in the business.

The return on average allocated capital was 36 percent, up from 30 percent, driven by higher net income.

Deposits

Three-Month Comparison

Net income for Deposits increased $362 million to $2.2 billion driven by higher revenue. Net interest income increased $468 million to $4.4 billion primarily due to growth in deposits and loans, and pricing discipline. Noninterest income of $1.2 billion remained relatively unchanged as lower service charges were largely offset by the results from ALM activities.

Noninterest expense increased $19 million to $2.7 billion primarily driven by continued investments in the business, largely offset by lower FDIC expense and operating efficiencies.

Average deposits increased $19.6 billion to $701.8 billion driven by strong organic growth. Growth in checking and time deposits of $24.0 billion was partially offset by a decline in traditional savings and money market savings of $4.2 billion.

Six-Month Comparison

Net income for Deposits increased $950 million to $4.4 billion driven by higher revenue and lower noninterest expense. Net interest income increased $1.1 billion to $8.7 billion primarily driven by the same factors as described in the three-month discussion. Noninterest income increased $73 million to $2.5 billion primarily driven by the results from ALM activities, partially offset by lower service charges.

Noninterest expense decreased $64 million to $5.3 billion primarily driven by lower FDIC expense and operating efficiencies, partially offset by continued investments in the business.

Average deposits increased $21.4 billion to $697.0 billion driven by strong organic growth. Growth in checking and money market savings of $23.9 billion was partially offset by a decline in traditional savings and time deposits of $2.3 billion.

Key Statistics – Deposits

	Three Months Ended June 30		Six Months Ended June 30	
	2019	2018	**2019**	2018
Total deposit spreads (excludes noninterest costs) (1)	**2.40%**	2.10%	**2.39%**	2.05%
Period end				
Consumer investment assets (in millions) (2)			**$ 219,732**	$ 191,472
Active digital banking users (units in thousands) (3)			**37,292**	35,722
Active mobile banking users (units in thousands)			**27,818**	25,335
Financial centers			**4,349**	4,433
ATMs			**16,561**	16,050

(1) Includes deposits held in Consumer Lending.
(2) Includes client brokerage assets, certain deposit sweep balances and AUM in *Consumer Banking*.
(3) Active digital banking users represents mobile and/or online users.

Consumer investment assets increased $28.3 billion driven by strong client flows and market performance. Active mobile banking users increased 2.5 million reflecting continuing changes in our customers' banking preferences. The number of financial centers declined by a net 84 reflecting changes in customer preferences to self-service options as we continue to optimize our consumer banking network and improve our cost to serve.

Consumer Lending

Three-Month Comparison

Net income for Consumer Lending increased $10 million to $1.1 billion driven by higher net interest income, largely offset by lower noninterest income. Net interest income increased $55 million to $2.8 billion primarily driven by higher interest rates and the impact of an increase in loan balances. Noninterest income decreased $35 million to $1.4 billion driven by lower card income and mortgage banking income.

Noninterest expense of $1.7 billion remained relatively unchanged.

Average loans increased $15.6 billion to $291.1 billion primarily driven by an increase in residential mortgages, partially offset by lower home equity loans.

Six-Month Comparison

Net income for Consumer Lending increased $65 million to $2.2 billion driven by lower noninterest expense and higher net interest income, partially offset by lower noninterest income. Net interest income increased $89 million to $5.6 billion and noninterest income decreased $90 million to $2.6 billion primarily driven by the same factors as described in the three-month discussion.

The provision for credit losses increased $39 million to $1.8 billion driven by portfolio seasoning in the U.S. credit card portfolio. Noninterest expense decreased $88 million to $3.5 billion primarily driven by operating efficiencies.

Average loans increased $14.1 billion to $289.0 billion primarily driven by increases in residential mortgages and U.S. credit card, partially offset by lower home equity and consumer vehicle loans.

Key Statistics – Consumer Lending

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2019**	2018	**2019**	2018
Total U.S. credit card (1)				
Gross interest yield	**10.76%**	9.86%	**10.78%**	9.90%
Risk-adjusted margin	**7.93**	7.96	**7.98**	8.09
New accounts (in thousands)	**1,068**	1,186	**2,102**	2,380
Purchase volumes	**$ 70,288**	$ 66,821	**$ 133,039**	$ 128,168
Debit card purchase volumes	**$ 84,046**	$ 80,697	**$ 162,540**	$ 156,749

(1) In addition to the U.S. credit card portfolio in *Consumer Banking*, the remaining U.S. credit card portfolio is in *GWIM*.

During the three and six months ended June 30, 2019, total U.S. credit card risk-adjusted margin decreased 3 bps and 11 bps compared to the same periods in 2018, primarily driven by increased net charge-offs and higher credit card rewards costs. During the three and six months ended June 30, 2019, total U.S. credit card purchase volumes increased $3.5 billion to $70.3 billion and $4.9 billion to $133.0 billion compared to the same periods in 2018, and debit card purchase volumes increased $3.3 billion to $84.0 billion and $5.8 billion to $162.5 billion, reflecting higher levels of consumer spending.

Key Statistics – Loan Production (1)

(Dollars in millions)	Three Months Ended June 30		Six Months Ended June 30	
	2019	2018	**2019**	2018
Total (2):				
First mortgage	**$ 18,229**	$ 11,672	**$ 29,689**	$ 21,096
Home equity	**2,768**	4,081	**5,593**	7,830
Consumer Banking:				
First mortgage	**$ 12,757**	$ 7,881	**$ 20,912**	$ 13,845
Home equity	**2,405**	3,644	**4,890**	6,989

(1) The loan production amounts represent the unpaid principal balance of loans and, in the case of home equity, the principal amount of the total line of credit.
(2) In addition to loan production in *Consumer Banking*, there is also first mortgage and home equity loan production in *GWIM*.

First mortgage loan originations in *Consumer Banking* and for the total Corporation increased $4.9 billion and $6.6 billion for the three months ended June 30, 2019 compared to the same period in 2018 primarily driven by a lower interest rate environment driving higher first-lien mortgage refinances. First mortgage loan originations in *Consumer Banking* and for the total Corporation increased $7.1 billion and $8.6 billion for the six months ended June 30, 2019 compared to the same period in 2018 primarily driven by the same factor as described in the three-month discussion.

Home equity production in *Consumer Banking* and for the total Corporation decreased $1.2 billion and $1.3 billion for the three months ended June 30, 2019 and $2.1 billion and $2.2 billion for the six months ended June 30, 2019 primarily driven by lower demand.

Global Wealth & Investment Management

(Dollars in millions)	Three Months Ended June 30			Six Months Ended June 30		
	2019	2018	% Change	**2019**	2018	% Change
Net interest income	**$ 1,624**	$ 1,538	6%	**$ 3,308**	$ 3,122	6%
Noninterest income:						
Investment and brokerage services	**2,963**	2,937	1	**5,805**	5,977	(3)
All other income	**313**	267	17	**607**	498	22
Total noninterest income	**3,276**	3,204	2	**6,412**	6,475	(1)
Total revenue, net of interest expense	**4,900**	4,742	3	**9,720**	9,597	1
Provision for credit losses	**21**	12	75	**26**	50	(48)
Noninterest expense	**3,458**	3,427	1	**6,886**	7,008	(2)
Income before income taxes	**1,421**	1,303	9	**2,808**	2,539	11
Income tax expense	**348**	332	5	**688**	647	6
Net income	**$ 1,073**	$ 971	11	**$ 2,120**	$ 1,892	12
Effective tax rate	**24.5%**	25.5%		**24.5%**	25.5%	
Net interest yield	**2.35**	2.42		**2.37**	2.43	
Return on average allocated capital	**30**	27		**30**	26	
Efficiency ratio	**70.58**	72.25		**70.85**	73.02	

Balance Sheet

	Three Months Ended June 30			Six Months Ended June 30		
Average	**2019**	2018	% Change	**2019**	2018	% Change
Total loans and leases	**$ 166,324**	$ 160,833	3%	**$ 165,369**	$ 159,969	3%
Total earning assets	**277,068**	255,146	9	**281,028**	258,940	9
Total assets	**289,819**	272,318	6	**293,451**	275,997	6
Total deposits	**253,925**	236,214	7	**257,856**	239,627	8
Allocated capital	**14,500**	14,500	—	**14,500**	14,500	—

Period end	**June 30 2019**	December 31 2018	% Change
Total loans and leases	**$ 168,993**	$ 164,854	3%
Total earning assets	**275,456**	287,199	(4)
Total assets	**287,878**	305,907	(6)
Total deposits	**251,818**	268,700	(6)

GWIM consists of two primary businesses: Merrill Lynch Global Wealth Management (MLGWM) and Bank of America Private Bank. For more information about *GWIM,* see Business Segment Operations in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Three-Month Comparison

Net income for *GWIM* increased $102 million to $1.1 billion due to higher revenue, partially offset by higher noninterest expense. The operating margin was 29 percent compared to 27 percent a year ago.

Net interest income increased $86 million to $1.6 billion due to higher deposit spreads and increases in average deposit and loan balances, partially offset by lower loan spreads.

Noninterest income, which primarily includes investment and brokerage services income, increased $72 million to $3.3 billion. The increase was driven by the positive impact of AUM flows and higher average market valuations compared to the same period in 2018, partially offset by lower AUM pricing.

Noninterest expense increased $31 million to $3.5 billion primarily driven by continued investments in the business, including marketing, and revenue-related incentives, largely offset by lower amortization of intangibles and FDIC expense.

The return on average allocated capital was 30 percent, up from 27 percent, due to higher net income. For more information on capital allocated to the business segments, see Business Segment Operations on page 11.

MLGWM revenue of $4.0 billion increased four percent, reflecting higher net interest income and asset management fees. The increase in asset management fees was driven by the impact of higher AUM flows and higher average market valuations, partially offset by lower AUM pricing.

Bank of America Private Bank revenue of $853 million remained relatively unchanged from the same period in 2018.

Six-Month Comparison

Net income for *GWIM* increased $228 million to $2.1 billion due to higher revenue and lower noninterest expense. The operating margin was 29 percent compared to 26 percent a year ago.

Net interest income increased $186 million to $3.3 billion due to the same factors as described in the three-month discussion.

Noninterest income, which primarily includes investment and brokerage services income, decreased $63 million to $6.4 billion. The decrease was driven by lower average market valuations compared to the same period in 2018, and declines in transactional revenue and AUM pricing, partially offset by the positive impact of AUM flows.

Noninterest expense decreased $122 million to $6.9 billion primarily driven by lower amortization of intangibles, FDIC expense and revenue-related incentives, partially offset by continued investments in the business.

The return on average allocated capital was 30 percent, up from 26 percent, due to higher net income. For more information on capital allocated to the business segments, see Business Segment Operations on page 11.

MLGWM revenue of $8.0 billion increased two percent due to the same factors as described in the three-month discussion. Bank of America Private Bank revenue of $1.7 billion remained relatively unchanged compared to the same period in 2018.

Key Indicators and Metrics

(Dollars in millions, except as noted)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	Six Months Ended June 30 2019	Six Months Ended June 30 2018
Revenue by Business				
Merrill Lynch Global Wealth Management	**$ 4,047**	$ 3,888	**$ 8,012**	$ 7,883
Bank of America Private Bank	**853**	854	**1,708**	1,714
Total revenue, net of interest expense	**$ 4,900**	$ 4,742	**$ 9,720**	$ 9,597
Client Balances by Business, at period end				
Merrill Lynch Global Wealth Management			**$ 2,440,710**	$ 2,311,598
Bank of America Private Bank			**458,081**	442,608
Total client balances			**$ 2,898,791**	$ 2,754,206
Client Balances by Type, at period end				
Assets under management (1)			**$ 1,203,783**	$ 1,138,500
Brokerage and other assets			**1,314,457**	1,254,135
Deposits			**251,818**	233,925
Loans and leases (2)			**172,265**	165,145
Less: Managed deposits in AUM (1)			**(43,532)**	(37,499)
Total client balances			**$ 2,898,791**	$ 2,754,206
Assets Under Management Rollforward				
Assets under management, beginning of period	**$ 1,169,713**	$ 1,122,571	**$ 1,072,234**	$ 1,121,383
Net client flows	**5,274**	10,420	**11,192**	31,878
Market valuation/other	**28,796**	5,509	**120,357**	(14,761)
Total assets under management, end of period	**$ 1,203,783**	$ 1,138,500	**$ 1,203,783**	$ 1,138,500
Associates, at period end (3)				
Number of financial advisors			**17,508**	17,442
Total wealth advisors, including financial advisors			**19,512**	19,350
Total primary sales professionals, including financial advisors and wealth advisors			**20,611**	20,451
Merrill Lynch Global Wealth Management Metric				
Financial advisor productivity (4) (in thousands)	**$ 1,082**	$ 1,017	**$ 1,061**	$ 1,027
Bank of America Private Bank Metric, at period end				
Primary sales professionals			**1,808**	1,723

(1) AUM includes deposits that are managed within investment accounts. Prior periods have been updated to conform to current-period presentation.
(2) Includes margin receivables which are classified in customer and other receivables on the Consolidated Balance Sheet.
(3) Includes financial advisors in the *Consumer Banking* segment of 2,818 and 2,622 at June 30, 2019 and 2018.
(4) Financial advisor productivity is defined as annualized MLGWM total revenue, excluding the allocation of certain ALM activities, divided by the total average number of financial advisors (excluding financial advisors in the *Consumer Banking* segment).

Client Balances

Client balances increased $144.6 billion, or five percent, to $2.9 trillion at June 30, 2019 compared to June 30, 2018. The increase in client balances was due to higher market valuations and positive net flows as of June 30, 2019. Positive net client flows in AUM decreased from the same period a year ago primarily due to a smaller shift from brokerage assets to AUM.

Global Banking

(Dollars in millions)	Three Months Ended June 30 2019	2018	% Change	Six Months Ended June 30 2019	2018	% Change
Net interest income	**$ 2,709**	$ 2,739	(1%)	**$ 5,499**	$ 5,418	1 %
Noninterest income:						
Service charges	**749**	768	(2)	**1,462**	1,532	(5)
Investment banking fees	**717**	743	(3)	**1,426**	1,487	(4)
All other income	**800**	764	5	**1,743**	1,572	11
Total noninterest income	**2,266**	2,275	—	**4,631**	4,591	1
Total revenue, net of interest expense	**4,975**	5,014	(1)	**10,130**	10,009	1
Provision for credit losses	**125**	(23)	n/m	**236**	(7)	n/m
Noninterest expense	**2,212**	2,185	1	**4,478**	4,477	—
Income before income taxes	**2,638**	2,852	(8)	**5,416**	5,539	(2)
Income tax expense	**712**	741	(4)	**1,462**	1,440	2
Net income	**$ 1,926**	$ 2,111	(9)	**$ 3,954**	$ 4,099	(4)
Effective tax rate	**27.0%**	26.0%		**27.0%**	26.0%	
Net interest yield	**2.80**	3.01		**2.91**	3.01	
Return on average allocated capital	**19**	21		**19**	20	
Efficiency ratio	**44.45**	43.57		**44.20**	44.72	

Balance Sheet

Average	Three Months Ended June 30 2019	2018	% Change	Six Months Ended June 30 2019	2018	% Change
Total loans and leases	**$ 372,531**	$ 355,088	5%	**$ 371,326**	$ 353,398	5 %
Total earning assets	**387,819**	364,587	6	**381,111**	363,212	5
Total assets	**442,591**	424,540	4	**435,803**	423,209	3
Total deposits	**362,619**	323,215	12	**355,866**	323,807	10
Allocated capital	**41,000**	41,000	—	**41,000**	41,000	—

Period end	**June 30 2019**	December 31 2018	% Change
Total loans and leases	**$ 376,948**	$ 365,717	3 %
Total earning assets	**384,884**	377,812	2
Total assets	**440,352**	442,330	—
Total deposits	**358,902**	360,248	—

n/m = not meaningful

Global Banking, which includes Global Corporate Banking, Global Commercial Banking, Business Banking and Global Investment Banking, provides a wide range of lending-related products and services, integrated working capital management and treasury solutions, and underwriting and advisory services through our network of offices and client relationship teams. For more information about *Global Banking*, see Business Segment Operations in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Three-Month Comparison

Net income for *Global Banking* decreased $185 million to $1.9 billion primarily driven by higher provision for credit losses.

Revenue decreased $39 million to $5.0 billion driven by modest declines in net interest income and noninterest income. Net interest income decreased $30 million to $2.7 billion as the impact of deposit and loan growth was more than offset by the allocation of ALM activities and loan spread compression. Noninterest income decreased $9 million to $2.3 billion. The provision for credit losses increased $148 million to $125 million primarily driven by energy reserve releases in the prior-year period.

Noninterest expense increased $27 million to $2.2 billion primarily due to continued investment in the business.

The return on average allocated capital was 19 percent, down from 21 percent, due to lower net income. For more information on capital allocated to the business segments, see Business Segment Operations on page 11.

Six-Month Comparison

Net income for *Global Banking* decreased $145 million to $4.0 billion primarily driven by higher provision for credit losses, partially offset by higher revenue.

Revenue increased $121 million to $10.1 billion driven by higher net interest income and noninterest income. Net interest income increased $81 million to $5.5 billion primarily due to the impact of higher deposit and loan balances and increased deposit rates, partially offset by the allocation of ALM activities and loan spread compression. Noninterest income increased $40 million to $4.6 billion primarily due to higher leasing-related revenue and ALM results, partially offset by lower fees and commissions. The provision for credit losses increased $243 million to $236 million primarily driven by energy reserve releases in the prior-year period and a current-period single-name utility client charge-off.

Noninterest expense was relatively unchanged at $4.5 billion, primarily due to lower FDIC expense, largely offset by continued investment in the business.

The return on average allocated capital was 19 percent, down from 20 percent, due to lower net income. For more information on capital allocated to the business segments, see Business Segment Operations on page 11.

Global Corporate, Global Commercial and Business Banking

The table below and following discussion present a summary of the results, which exclude certain investment banking activities in *Global Banking*.

Global Corporate, Global Commercial and Business Banking

	Global Corporate Banking		Global Commercial Banking		Business Banking		Total	
	Three Months Ended June 30							
(Dollars in millions)	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018
Revenue								
Business Lending	**$ 923**	$ 1,036	**$ 1,046**	$ 1,046	**$ 90**	$ 110	**$ 2,059**	$ 2,192
Global Transaction Services	**1,005**	956	**889**	829	**267**	241	**2,161**	2,026
Total revenue, net of interest expense	**$ 1,928**	$ 1,992	**$ 1,935**	$ 1,875	**$ 357**	$ 351	**$ 4,220**	$ 4,218
Balance Sheet								
Average								
Total loans and leases	**$ 175,701**	$ 163,632	**$ 181,741**	$ 174,666	**$ 15,119**	$ 16,785	**$ 372,561**	$ 355,083
Total deposits	**181,591**	157,224	**141,611**	129,480	**39,430**	36,539	**362,632**	323,243

	Global Corporate Banking		Global Commercial Banking		Business Banking		Total	
	Six Months Ended June 30							
	2019	2018	**2019**	2018	**2019**	2018	**2019**	2018
(Dollars in millions)								
Revenue								
Business Lending	**$ 1,968**	$ 2,032	**$ 2,080**	$ 2,093	**$ 184**	$ 216	**$ 4,232**	$ 4,341
Global Transaction Services	**2,012**	1,877	**1,780**	1,642	**533**	473	**4,325**	3,992
Total revenue, net of interest expense	**$ 3,980**	$ 3,909	**$ 3,860**	$ 3,735	**$ 717**	$ 689	**$ 8,557**	$ 8,333
Balance Sheet								
Average								
Total loans and leases	**$ 175,993**	$ 162,857	**$ 180,105**	$ 173,520	**$ 15,230**	$ 17,021	**$ 371,328**	$ 353,398
Total deposits	**174,895**	156,438	**142,070**	130,911	**38,920**	36,475	**355,885**	323,824
Period end								
Total loans and leases	**$ 179,517**	$ 163,524	**$ 182,417**	$ 175,405	**$ 15,000**	$ 16,549	**$ 376,934**	$ 355,478
Total deposits	**179,656**	160,993	**139,312**	128,079	**39,932**	36,982	**358,900**	326,054

Business Lending revenue decreased $133 million and $109 million for the three and six months ended June 30, 2019 compared to the same periods in 2018 primarily driven by ALM results and credit spread compression, partially offset by higher leasing-related revenue.

Global Transaction Services revenue increased $135 million and $333 million for the three and six months ended June 30, 2019 primarily driven by higher deposit balances and rates.

Average loans and leases increased five percent for both the three and six months ended June 30, 2019 compared to the same periods in 2018 driven by growth in the commercial and industrial portfolio. Average deposits increased 12 percent and 10 percent for the three and six months ended June 30, 2019 due to growth in domestic and international interest-bearing balances.

Global Investment Banking

Client teams and product specialists underwrite and distribute debt, equity and loan products, and provide advisory services and tailored risk management solutions. The economics of certain investment banking and underwriting activities are shared primarily between *Global Banking* and *Global Markets* under an internal revenue-sharing arrangement. *Global Banking* originates certain deal-related transactions with our corporate and commercial clients that are executed and distributed by *Global Markets*. To provide a complete discussion of our consolidated investment banking fees, the following table presents total Corporation investment banking fees and the portion attributable to *Global Banking*.

Investment Banking Fees

	Global Banking		Total Corporation		Global Banking		Total Corporation	
	Three Months Ended June 30				Six Months Ended June 30			
(Dollars in millions)	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018
Products								
Advisory	**$ 254**	$ 269	**$ 288**	$ 303	**$ 557**	$ 545	**$ 631**	$ 599
Debt issuance	**324**	367	**746**	874	**651**	723	**1,494**	1,701
Equity issuance	**139**	107	**395**	290	**218**	219	**629**	604
Gross investment banking fees	**717**	743	**1,429**	1,467	**1,426**	1,487	**2,754**	2,904
Self-led deals	**(23)**	(15)	**(58)**	(45)	**(44)**	(49)	**(119)**	(129)
Total investment banking fees	**$ 694**	$ 728	**$ 1,371**	$ 1,422	**$ 1,382**	$ 1,438	**$ 2,635**	$ 2,775

Total Corporation investment banking fees, excluding self-led deals, of $1.4 billion and $2.6 billion, which are primarily included within *Global Banking* and *Global Markets,* decreased four percent and five percent for the three and six months ended June 30, 2019 compared to the same periods in 2018 primarily due to declines in debt underwriting fees, partially offset by an increase in equity underwriting fees.

Global Markets

(Dollars in millions)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	% Change	Six Months Ended June 30 2019	Six Months Ended June 30 2018	% Change
Net interest income	**$ 811**	$ 968	(16)%	**$ 1,764**	$ 1,989	(11)%
Noninterest income:						
Investment and brokerage services	**433**	430	1	**877**	918	(4)
Investment banking fees	**584**	651	(10)	**1,121**	1,261	(11)
Trading account income	**1,961**	2,020	(3)	**4,043**	4,577	(12)
All other income	**356**	182	96	**521**	318	64
Total noninterest income	**3,334**	3,283	2	**6,562**	7,074	(7)
Total revenue, net of interest expense	**4,145**	4,251	(2)	**8,326**	9,063	(8)
Provision for credit losses	**5**	(1)	n/m	**(18)**	(4)	n/m
Noninterest expense	**2,677**	2,726	(2)	**5,432**	5,651	(4)
Income before income taxes	**1,463**	1,526	(4)	**2,912**	3,416	(15)
Income tax expense	**417**	397	5	**830**	888	(7)
Net income	**$ 1,046**	$ 1,129	(7)	**$ 2,082**	$ 2,528	(18)
Effective tax rate	**28.5%**	26.0%		**28.5%**	26.0%	
Return on average allocated capital	**12**	13		**12**	15	
Efficiency ratio	**64.55**	64.15		**65.23**	62.35	

Balance Sheet

Average	Three Months Ended June 30 2019	Three Months Ended June 30 2018	% Change	Six Months Ended June 30 2019	Six Months Ended June 30 2018	% Change
Trading-related assets:						
Trading account securities	**$ 251,401**	$ 209,271	20 %	**$ 238,400**	$ 209,772	14 %
Reverse repurchases	**117,730**	132,257	(11)	**120,228**	128,125	(6)
Securities borrowed	**83,374**	83,282	—	**83,856**	82,831	1
Derivative assets	**43,700**	48,316	(10)	**42,831**	47,447	(10)
Total trading-related assets	**496,205**	473,126	5	**485,315**	468,175	4
Total loans and leases	**70,587**	75,053	(6)	**70,335**	74,412	(5)
Total earning assets	**474,061**	490,482	(3)	**473,242**	488,307	(3)
Total assets	**685,411**	678,501	1	**674,790**	678,428	(1)
Total deposits	**31,128**	30,736	1	**31,246**	31,524	(1)
Allocated capital	**35,000**	35,000	—	**35,000**	35,000	—

Period end	June 30 2019	December 31 2018	% Change
Total trading-related assets	**$ 487,094**	$ 447,998	9 %
Total loans and leases	**74,136**	73,928	—
Total earning assets	**475,836**	457,224	4
Total assets	**674,985**	641,923	5
Total deposits	**29,961**	37,841	(21)

n/m = not meaningful

Global Markets offers sales and trading services and research services to institutional clients across fixed-income, credit, currency, commodity and equity businesses. *Global Markets* product coverage includes securities and derivative products in both the primary and secondary markets. For more information about *Global Markets,* see Business Segment Operations in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Three-Month Comparison

Net income for *Global Markets* decreased $83 million to $1.0 billion. Net DVA losses were $31 million compared to losses of $179 million, and excluding net DVA, net income decreased $195 million to $1.1 billion. These decreases were primarily driven by a decrease in revenue, partially offset by lower noninterest expense.

Revenue declined $106 million to $4.1 billion due to lower sales and trading revenue and lower investment banking fees, partially offset by a $199 million gain on the sale of an equity investment. Sales and trading revenue decreased $209 million, and excluding net DVA, decreased $357 million due to declines in both FICC and Equities revenue. Noninterest expense decreased $49 million to $2.7 billion primarily driven by lower revenue-related expenses.

Average total assets increased $6.9 billion to $685.4 billion driven by increased levels of inventory in FICC to facilitate expected client demand.

The return on average allocated capital was 12 percent, down from 13 percent, reflecting lower net income.

Six-Month Comparison

Net income for *Global Markets* decreased $446 million to $2.1 billion. Net DVA losses were $121 million compared to losses of $115 million. Excluding net DVA, net income decreased $441 million to $2.2 billion, primarily driven by a decrease in revenue, partially offset by lower noninterest expense.

Revenue declined $737 million to $8.3 billion. Sales and trading revenue decreased $894 million, and excluding net DVA, decreased $888 million, and noninterest expense decreased $219 million to $5.4 billion. These decreases were primarily driven by the same factors as described in the three-month discussion.

Average total assets decreased $3.6 billion to $674.8 billion primarily due to lower client balances in Equities. Period-end total assets increased $33.1 billion from December 31, 2018 to $675.0 billion due to higher client balances in Equities and increased levels of inventory in FICC to facilitate expected client demand.

The return on average allocated capital was 12 percent, down from 15 percent, reflecting lower net income.

Sales and Trading Revenue

For a description of sales and trading revenue, see Business Segment Operations in the MD&A of the Corporation's 2018 Annual Report on Form 10-K. The following table and related discussion present sales and trading revenue, substantially all of which is in *Global Markets,* with the remainder in *Global Banking*. In addition, the following table and related discussion present sales and trading revenue, excluding net DVA, which is a non-GAAP financial measure. For more information on net DVA, see Supplemental Financial Data on page 6.

Sales and Trading Revenue (1, 2)

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2019**	2018	**2019**	2018
Sales and trading revenue				
Fixed-income, currencies and commodities	**$ 2,098**	$ 2,132	**$ 4,377**	$ 4,765
Equities	**1,144**	1,319	**2,325**	2,831
Total sales and trading revenue	**$ 3,242**	$ 3,451	**$ 6,702**	$ 7,596
Sales and trading revenue, excluding net DVA (3)				
Fixed-income, currencies and commodities	**$ 2,128**	$ 2,316	**$ 4,486**	$ 4,871
Equities	**1,145**	1,314	**2,337**	2,840
Total sales and trading revenue, excluding net DVA	**$ 3,273**	$ 3,630	**$ 6,823**	$ 7,711

(1) Includes FTE adjustments of $31 million and $80 million for the three and six months ended June 30, 2019 compared to $80 million and $146 million for the same periods in 2018. For more information on sales and trading revenue, see *Note 3 – Derivatives* to the Consolidated Financial Statements.
(2) Includes *Global Banking* sales and trading revenue of $128 million and $243 million for the three and six months ended June 30, 2019 compared to $79 million and $244 million for the same periods in 2018.
(3) FICC and Equities sales and trading revenue, excluding net DVA, is a non-GAAP financial measure. FICC net DVA losses were $30 million and $109 million for the three and six months ended June 30, 2019 compared to losses of $184 million and $106 million for the same periods in 2018. Equities net DVA losses were $1 million and $12 million for the three and six months ended June 30, 2019 compared to gains of $5 million and losses of $9 million for the same periods in 2018.

The following explanations for period-over-period changes in sales and trading, FICC and Equities revenue exclude net DVA, but would be the same if net DVA was included.

Three-Month Comparison

FICC revenue decreased $188 million due to a generally weaker trading environment leading to reduced client activity across most products. Equities revenue decreased $169 million driven by under performance in derivatives compared to a strong prior-year period due to lower levels of client activity and weaker trading performance.

Six-Month Comparison

FICC revenue decreased $385 million and equities revenue decreased $503 million, both primarily driven by the same factors as described in the three-month discussion.

All Other

(Dollars in millions)	Three Months Ended June 30 2019	2018	% Change	Six Months Ended June 30 2019	2018	% Change
Net interest income	**$ 78**	$ 144	(46)%	**$ 73**	$ 302	(76)%
Noninterest income (loss)	**(582)**	(681)	(15)	**(1,208)**	(1,262)	(4)
Total revenue, net of interest expense	**(504)**	(537)	(6)	**(1,135)**	(960)	18
Provision for credit losses	**(241)**	(105)	130	**(295)**	(257)	15
Noninterest expense	**514**	519	(1)	**933**	1,015	(8)
Loss before income taxes	**(777)**	(951)	(18)	**(1,773)**	(1,718)	3
Income tax benefit	**(786)**	(602)	31	**(1,734)**	(1,374)	26
Net income (loss)	**$ 9**	$ (349)	(103)	**$ (39)**	$ (344)	(89)

Balance Sheet

Average	Three Months Ended June 30 2019	2018	% Change	Six Months Ended June 30 2019	2018	% Change
Total loans and leases	**$ 44,695**	$ 63,155	(29)%	**$ 45,921**	$ 65,470	(30)%
Total assets (1)	**201,846**	187,337	8	**201,732**	193,283	4
Total deposits	**20,750**	22,682	(9)	**20,721**	22,896	(9)
Period end				**June 30 2019**	December 31 2018	% Change
Total loans and leases				**$ 43,311**	$ 48,061	(10)%
Total assets (1)				**205,714**	195,466	5
Total deposits				**20,189**	18,541	9

(1) In segments where the total of liabilities and equity exceeds assets, which are generally deposit-taking segments, we allocate assets from *All Other* to those segments to match liabilities (i.e., deposits) and allocated shareholders' equity. Average allocated assets were $549.5 billion and $543.0 billion for the three and six months ended June 30, 2019 compared to $519.6 billion and $517.1 billion for the same periods in 2018, and period-end allocated assets were $544.0 billion and $540.8 billion at June 30, 2019 and December 31, 2018.
n/m = not meaningful

All Other consists of ALM activities, equity investments, non-core mortgage loans and servicing activities, liquidating businesses and certain expenses not otherwise allocated to a business segment. ALM activities encompass certain residential mortgages, debt securities, and interest rate and foreign currency risk management activities. Substantially all of the results of ALM activities are allocated to our business segments. Equity investments include our merchant services joint venture, as well as a portfolio of equity, real estate and other alternative investments. For information on our merchant services joint venture, see *Note 11 – Commitments and Contingencies* to the Consolidated Financial Statements. For additional information about *All Other,* see Business Segment Operations in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

For more information on the composition of the core and non-core portfolios, see Consumer Portfolio Credit Risk Management on page 28. Residential mortgage loans that are held for ALM purposes, including interest rate or liquidity risk management, are classified as core and are presented on the balance sheet of *All Other*. During the six months ended June 30, 2019, residential mortgage loans held for ALM activities decreased $1.1 billion to $23.8 billion primarily as a result of payoffs and paydowns. Non-core residential mortgage and home equity loans, which are principally runoff portfolios, are also held in *All Other*. During the six months ended June 30, 2019, total non-core loans decreased $3.9 billion to $19.6 billion due primarily to payoffs and paydowns as well as sales and Federal Housing Administration (FHA) loan conveyances, offset by repurchases.

Three-Month Comparison

Net income for *All Other* increased $358 million to $9 million driven by improved revenue, an increase in the benefit in provision for credit losses and a higher income tax benefit.

Revenue increased $33 million from the prior period which included a $729 million charge related to the redemption of certain trust preferred securities and a $572 million gain from the sale of non-core mortgage loans.

The benefit in the provision for credit losses increased $136 million to $241 million primarily due to recoveries from the sales of previously charged-off non-core home equity loans.

The income tax benefit increased to $786 million driven by a higher level of tax credits. Both periods included income tax benefit adjustments to eliminate the FTE treatment of certain tax credits recorded in *Global Banking*.

Six-Month Comparison

The net loss for *All Other* improved $305 million to a loss of $39 million driven by an increased income tax benefit, partially offset by a higher pretax loss.

Revenue decreased $175 million to negative $1.1 billion with the same factors as described in the three-month discussion affecting the year-over-year results.

The benefit in the provision for credit losses increased $38 million to $295 million primarily driven by the same factors as described in the three-month discussion, partially offset by a slower pace of portfolio improvement.

Noninterest expense decreased $82 million to $933 million reflecting lower non-core mortgage costs, primarily due to lower volume, a decrease in compensation and benefits, and lower FDIC expense, partially offset by higher marketing expense.

The income tax benefit was $1.7 billion compared to a benefit of $1.4 billion in the same period in 2018, driven by a higher level of tax credits. Both periods included income tax benefit adjustments to eliminate the FTE treatment of certain tax credits recorded in *Global Banking*.

Off-Balance Sheet Arrangements and Contractual Obligations

We have contractual obligations to make future payments on debt and lease agreements. Additionally, in the normal course of business, we enter into contractual arrangements whereby we commit to future purchases of products or services from unaffiliated parties. For more information on obligations and commitments, see *Note 11 – Commitments and Contingencies* to the Consolidated Financial Statements herein, as well as Off-Balance Sheet Arrangements and Contractual Obligations in the MD&A of the Corporation's 2018 Annual Report on Form 10-K, and *Note 11 – Long-term Debt* and *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Representations and Warranties Obligations

For information on representations and warranties obligations in connection with the sale of mortgage loans, see *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K. For more information related to the sensitivity of the assumptions used to estimate our reserve for representations and warranties, see Complex Accounting Estimates – Representations and Warranties Liability in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Managing Risk

Risk is inherent in all our business activities. The seven key types of risk faced by the Corporation are strategic, credit, market, liquidity, compliance, operational and reputational. Sound risk management enables us to serve our customers and deliver for our shareholders. If not managed well, risks can result in financial loss, regulatory sanctions and penalties, and damage to our reputation, each of which may adversely impact our ability to execute our business strategies. The Corporation takes a comprehensive approach to risk management with a defined Risk Framework and an articulated Risk Appetite Statement which are approved annually by the Enterprise Risk Committee and the Board.

Our Risk Framework is the foundation for consistent and effective management of risks facing the Corporation. The Risk Framework sets forth clear roles, responsibilities and accountability for the management of risk and provides a blueprint for how the Board, through delegation of authority to committees and executive officers, establishes risk appetite and associated limits for our activities.

Our Risk Appetite Statement is intended to ensure that the Corporation maintains an acceptable risk profile by providing a common framework and a comparable set of measures for senior management and the Board to clearly indicate the level of risk the Corporation is willing to accept. Risk appetite is set at least annually and is aligned with the Corporation's strategic, capital and financial operating plans. Our line of business strategies and risk appetite are also similarly aligned.

For more information on our Risk Framework, our risk management activities and the key types of risk faced by the Corporation, see the Managing Risk through Reputational Risk sections in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Capital Management

The Corporation manages its capital position so that its capital is more than adequate to support its business activities and aligns with risk, risk appetite and strategic planning. For more information on capital management, including related regulatory requirements, see Capital Management in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

CCAR and Capital Planning

The Federal Reserve requires BHCs to submit a capital plan and requests for capital actions on an annual basis, consistent with the rules governing the CCAR capital plan.

On June 27, 2019, following the Federal Reserve's non-objection to our 2019 CCAR capital plan, the Board authorized the repurchase of approximately $30.9 billion in common stock from July 1, 2019 through June 30, 2020, which includes approximately $900 million to offset shares awarded under equity-based compensation plans during the same period. The Board's common stock repurchase authorization replaces its prior common stock repurchase authorization that expired on June 30, 2019.

Our stock repurchases are subject to various factors, including the Corporation's capital position, liquidity, financial performance and alternative uses of capital, stock trading price and general market conditions, and may be suspended at any time. The repurchases may be effected through open market purchases or privately negotiated transactions, including repurchase plans that satisfy the conditions of Rule 10b5-1 of the Securities Exchange Act of 1934, as amended (Exchange Act). As a well-capitalized BHC, we may notify the Federal Reserve of our intention to make additional capital distributions not to exceed 0.25 percent of Tier 1 capital, and which were not contemplated in our capital plan, subject to the Federal Reserve's non-objection.

Regulatory Capital

As a financial services holding company, we are subject to regulatory capital rules, including Basel 3, issued by U.S. banking regulators. The Corporation's depository institution subsidiaries are also subject to the Prompt Corrective Action (PCA) framework. The Corporation and its primary affiliated banking entity, BANA, are Advanced approaches institutions under Basel 3 and are required to report regulatory risk-based capital ratios and risk-weighted assets under both the Standardized and Advanced approaches. The approach that yields the lower ratio is used to assess capital adequacy including under the PCA framework. As of June 30, 2019, the CET1 and Tier 1 capital ratios for the Corporation were lower under the Standardized approach whereas the Advanced approaches yielded a lower Total capital ratio.

Minimum Capital Requirements

Minimum capital requirements and related buffers were fully phased in as of January 1, 2019. In order to avoid restrictions on capital distributions and discretionary bonus payments, the Corporation must meet risk-based capital ratio requirements that include a capital conservation buffer greater than 2.5 percent, plus any applicable countercyclical capital buffer and a global systemically important bank (G-SIB) surcharge. The buffers and surcharge must be comprised solely of CET1 capital.

The Corporation is also required to maintain a minimum supplementary leverage ratio (SLR) of 3.0 percent plus a leverage buffer of 2.0 percent in order to avoid certain restrictions on capital distributions and discretionary bonus payments. Our insured depository institution subsidiaries are required to maintain a minimum 6.0 percent SLR to be considered well capitalized under the PCA framework.

Capital Composition and Ratios

Table 9 presents Bank of America Corporation's capital ratios and related information in accordance with Basel 3 Standardized and Advanced approaches as measured at June 30, 2019 and December 31, 2018. As of the periods presented herein, the Corporation met the definition of well capitalized under current regulatory requirements.

Table 9 Bank of America Corporation Regulatory Capital under Basel 3

(Dollars in millions, except as noted)	Standardized Approach	Advanced Approaches	Regulatory Minimum (1)
	June 30, 2019		
Risk-based capital metrics:			
Common equity tier 1 capital	**$ 171,498**	**$ 171,498**	
Tier 1 capital	**195,539**	**195,539**	
Total capital (2)	**228,965**	**220,904**	
Risk-weighted assets (in billions)	**1,467**	**1,431**	
Common equity tier 1 capital ratio	**11.7%**	**12.0%**	**9.5%**
Tier 1 capital ratio	**13.3**	**13.7**	**11.0**
Total capital ratio	**15.6**	**15.4**	**13.0**
Leverage-based metrics:			
Adjusted quarterly average assets (in billions) (3)	**$ 2,322**	**$ 2,322**	
Tier 1 leverage ratio	**8.4%**	**8.4%**	**4.0**
SLR leverage exposure (in billions)		**$ 2,872**	
SLR		**6.8%**	**5.0**
	December 31, 2018		
Risk-based capital metrics:			
Common equity tier 1 capital	$ 167,272	$ 167,272	
Tier 1 capital	189,038	189,038	
Total capital (2)	221,304	212,878	
Risk-weighted assets (in billions)	1,437	1,409	
Common equity tier 1 capital ratio	11.6%	11.9%	8.25%
Tier 1 capital ratio	13.2	13.4	9.75
Total capital ratio	15.4	15.1	11.75
Leverage-based metrics:			
Adjusted quarterly average assets (in billions) (3)	$ 2,258	$ 2,258	
Tier 1 leverage ratio	8.4%	8.4%	4.0
SLR leverage exposure (in billions)		$ 2,791	
SLR		6.8%	5.0

(1) The capital conservation buffer and G-SIB surcharge were both 2.5 percent at June 30, 2019 and 1.875 percent at December 31, 2018. The countercyclical capital buffer for both periods was zero. The SLR minimum includes a leverage buffer of 2.0 percent.
(2) Total capital under the Advanced approaches differs from the Standardized approach due to differences in the amount permitted in Tier 2 capital related to the qualifying allowance for credit losses.
(3) Reflects total average assets adjusted for certain Tier 1 capital deductions.

CET1 capital was $171.5 billion at June 30, 2019, an increase of $4.2 billion from December 31, 2018, driven by earnings and lower net unrealized losses on available-for-sale (AFS) debt securities included in accumulated other comprehensive income (OCI), partially offset by common stock repurchases and dividends. During the six months ended June 30, 2019, Total capital under the Advanced approaches increased $8.0 billion primarily driven by the same factors as CET1 capital and preferred stock issuances. Risk-weighted assets under the Standardized approach, which yielded the lower CET1 capital ratio at June 30, 2019, increased $29.3 billion during the six months ended June 30, 2019 to $1,467 billion primarily due to an increase in other assets and client activity in *Global Markets* and *Global Banking*.

Table 10 shows the capital composition at June 30, 2019 and December 31, 2018.

Table 10 Capital Composition under Basel 3

(Dollars in millions)	June 30 2019	December 31 2018
Total common shareholders' equity	**$ 246,719**	$ 242,999
Goodwill, net of related deferred tax liabilities	**(68,571)**	(68,572)
Deferred tax assets arising from net operating loss and tax credit carryforwards	**(5,332)**	(5,981)
Intangibles, other than mortgage servicing rights and goodwill, net of related deferred tax liabilities	**(1,342)**	(1,294)
Other	**24**	120
Common equity tier 1 capital	**171,498**	167,272
Qualifying preferred stock, net of issuance cost	**24,688**	22,326
Other	**(647)**	(560)
Tier 1 capital	**195,539**	189,038
Tier 2 capital instruments	**23,107**	21,887
Eligible credit reserves included in Tier 2 capital	**2,272**	1,972
Other	**(14)**	(19)
Total capital under the Advanced approaches	**$ 220,904**	$ 212,878

Table 11 shows the components of risk-weighted assets as measured under Basel 3 at June 30, 2019 and December 31, 2018.

Table 11 Risk-weighted Assets under Basel 3

(Dollars in billions)	Standardized Approach	Advanced Approaches	Standardized Approach	Advanced Approaches
	June 30, 2019		December 31, 2018	
Credit risk	**$ 1,416**	**$ 848**	$ 1,384	$ 827
Market risk	**51**	**50**	53	52
Operational risk	**n/a**	**500**	n/a	500
Risks related to credit valuation adjustments	**n/a**	**33**	n/a	30
Total risk-weighted assets	**$ 1,467**	**$ 1,431**	$ 1,437	$ 1,409

n/a = not applicable

Bank of America, N.A. Regulatory Capital

Table 12 presents regulatory capital information for BANA in accordance with Basel 3 Standardized and Advanced approaches as measured at June 30, 2019 and December 31, 2018. BANA met the definition of well capitalized under the PCA framework for both periods.

Table 12 Bank of America, N.A. Regulatory Capital under Basel 3

(Dollars in millions, except as noted)	Standardized Approach	Advanced Approaches	Regulatory Minimum (1)
	June 30, 2019		
Risk-based capital metrics:			
Common equity tier 1 capital	**$ 154,703**	**$ 154,703**	
Tier 1 capital	**154,703**	**154,703**	
Total capital (2)	**166,719**	**158,962**	
Risk-weighted assets (in billions)	**1,220**	**977**	
Common equity tier 1 capital ratio	**12.7%**	**15.8%**	**7.0%**
Tier 1 capital ratio	**12.7**	**15.8**	**8.5**
Total capital ratio	**13.7**	**16.3**	**10.5**
Leverage-based metrics:			
Adjusted quarterly average assets (in billions) (3)	**1,725**	**1,725**	
Tier 1 leverage ratio	**9.0%**	**9.0%**	**5.0**
SLR leverage exposure (in billions)		**2,120**	
SLR		**7.3%**	**6.0**
	December 31, 2018		
Risk-based capital metrics:			
Common equity tier 1 capital	$ 149,824	$ 149,824	
Tier 1 capital	149,824	149,824	
Total capital (2)	161,760	153,627	
Risk-weighted assets (in billions)	1,195	959	
Common equity tier 1 capital ratio	12.5%	15.6%	6.5%
Tier 1 capital ratio	12.5	15.6	8.0
Total capital ratio	13.5	16.0	10.0
Leverage-based metrics:			
Adjusted quarterly average assets (in billions) (3)	1,719	1,719	
Tier 1 leverage ratio	8.7%	8.7%	5.0
SLR leverage exposure (in billions)		2,112	
SLR		7.1%	6.0

(1) Risk-based capital regulatory minimums at June 30, 2019 are the minimum ratios under Basel 3 including a capital conservation buffer of 2.5 percent. The regulatory minimums for the leverage ratios as of both period ends and risk-based capital ratios as of December 31, 2018 are the percent required to be considered well capitalized under the PCA framework.
(2) Total capital under the Advanced approaches differs from the Standardized approach due to differences in the amount permitted in Tier 2 capital related to the qualifying allowance for credit losses.
(3) Reflects total average assets adjusted for certain Tier 1 capital deductions.

Total Loss-Absorbing Capacity Requirements

Effective January 1, 2019, the Corporation is subject to the Federal Reserve's final rule requiring G-SIBs to maintain minimum levels of total loss-absorbing capacity (TLAC) and long-term debt. TLAC consists of the Corporation's Tier 1 capital and eligible long-term debt issued directly by the Corporation. Eligible long-term debt for TLAC ratios is comprised of unsecured debt that has a remaining maturity of at least one year and satisfies additional requirements as prescribed in the TLAC final rule. As with the risk-based capital ratios and SLR, the Corporation is required to maintain TLAC ratios in excess of minimum requirements plus applicable buffers in order to avoid restrictions on capital distributions and discretionary bonus payments. Table 13 presents the Corporation's TLAC and long-term debt ratios and related information as of June 30, 2019.

Table 13 Bank of America Corporation Total Loss-Absorbing Capacity and Long-Term Debt

(Dollars in millions, except ratios)	TLAC	Regulatory Minimum (1)	Long-term Debt	Regulatory Minimum (2)
	June 30, 2019			
Total eligible balance	$ 373,680		$ 172,480	
Percentage of risk-weighted assets (3)	25.5%	22.0%	11.8%	8.5%
Percentage of SLR leverage exposure	13.0	9.5	6.0	4.5

(1) The TLAC risk-weighted assets regulatory minimum consists of 18.0 percent plus a TLAC risk-weighted assets buffer comprised of 2.5 percent plus the method 1 G-SIB surcharge of 1.5 percent. The countercyclical buffer is zero for this period. The TLAC SLR leverage exposure regulatory minimum consists of 7.5 percent plus a 2.0 percent TLAC leverage buffer. The TLAC risk-weighted assets and leverage buffers must be comprised solely of CET1 capital and Tier 1 capital, respectively.
(2) The long-term debt risk-weighted assets regulatory minimum is comprised of 6.0 percent plus an additional 2.5 percent requirement based on the Corporation's method 2 G-SIB surcharge.
(3) The approach that yields the higher risk-weighted assets is used to calculate TLAC and long-term debt ratios, which was the Standardized approach as of June 30, 2019.

Regulatory Developments

The following supplements the disclosure in Capital Management – Regulatory Developments in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Security-Based Swap Dealer Capital, Margin and Segregation Requirements

On June 21, 2019, the SEC published a final rule establishing capital, margin and segregation requirements for security-based swap dealers (SBSDs). The final rule increases the minimum net capital requirements for broker-dealers authorized to use internal models to compute alternative net capital (ANC broker-dealers). For ANC broker-dealers, the minimum tentative net capital requirement increased from $1.0 billion to $5.0 billion, and the net capital requirement was raised to the greater of $1.0 billion or the applicable risk-margin amount (initial margin maintained for cleared and non-cleared security-based swaps) plus two percent of certain customer-related assets. For stand-alone SBSDs that use models to calculate haircuts, the minimum tentative net capital requirement is $100 million and the minimum net capital requirement is the greater of $20 million or two percent of the risk-margin amount.

Revisions to Leverage Ratio Framework

On June 26, 2019, the Basel Committee published a revised leverage ratio treatment of client-cleared derivatives, which aligns the leverage ratio measurement of client-cleared derivatives with the measurement determined according to the Standardized approach to measuring counterparty credit risk exposures, as used for risk-based capital requirements. U.S. banking regulators may update the U.S. Basel 3 rules to incorporate the Basel Committee revisions. The impact to the Corporation's leverage ratio is not expected to be significant if U.S. banking regulators adopt the revisions as written by the Basel Committee.

Broker-dealer Regulatory Capital and Securities Regulation

The Corporation's principal U.S. broker-dealer subsidiaries are Merrill Lynch, Pierce, Fenner & Smith Incorporated (MLPF&S), BofA Securities, Inc. (BofAS) and Merrill Lynch Professional Clearing Corp (MLPCC). The Corporation's principal European broker-dealer subsidiaries are Merrill Lynch International (MLI) and BofA Securities Europe SA (BofASE).

As a result of resolution planning, effective May 13, 2019, the business of MLPF&S was reorganized into two affiliated broker-dealers: MLPF&S and BofAS, a newly formed broker-dealer. Under the reorganization, BofAS became the legal entity for the institutional services that were previously provided by MLPF&S, while the retail services remain with MLPF&S. For additional information, see the Corporation's Current Report on Form 8-K filed with the SEC on May 13, 2019. For more information on resolution planning, see Item 1. Business – Resolution Planning of the Corporation's 2018 Annual Report on Form 10-K.

The U.S. broker-dealer subsidiaries are subject to the net capital requirements of Rule 15c3-1 under the Exchange Act. BofAS and MLPCC are also registered as futures commission merchants and are subject to U.S. Commodity Futures Trading Commission (CFTC) Regulation 1.17.

MLPF&S computes its minimum capital requirement in accordance with Rule 15c3-1. At June 30, 2019, MLPF&S' regulatory net capital was $3.9 billion which exceeded the minimum requirement of $111 million by $3.8 billion.

BofAS also computes its minimum capital requirement in accordance with Rule 15c3-1. In accordance therewith, BofAS is required to maintain tentative net capital in excess of $1.0 billion and net capital in excess of the greater of $500 million or a certain percentage of its reserve requirement. BofAS is also required to hold a certain percentage of its risk-based margin in order to meet its CFTC minimum net capital requirement. At June 30, 2019, BofAS had tentative net capital of $12.7 billion. BofAS also had regulatory net capital of $10.6 billion which exceeded the minimum requirement of $2.1 billion by $8.5 billion.

MLPCC is a fully-guaranteed subsidiary of BofAS and provides clearing and settlement services. At June 30, 2019, MLPCC's regulatory net capital of $4.3 billion exceeded the minimum requirement of $1.1 billion by $3.2 billion.

Our European broker-dealers are subject to regulation by non-U.S. regulators. MLI, a U.K. investment firm, is regulated by the Prudential Regulation Authority and the Financial Conduct Authority, and is subject to certain regulatory capital requirements. At June 30, 2019, MLI's capital resources were $35.0 billion, which exceeded the minimum Pillar 1 requirement of $13.7 billion.

BofASE, a French investment firm, is regulated by the Autorité de Contrôle Prudentiel et de Résolution and the Autorité des Marchés Financiers, and is subject to certain regulatory capital requirements. At June 30, 2019, BofASE's capital resources were $2.8 billion which exceeded the minimum Pillar 1 requirement of $1.0 billion.

Liquidity Risk

Funding and Liquidity Risk Management

Our primary liquidity risk management objective is to meet expected or unexpected cash flow and collateral needs while continuing to support our businesses and customers under a range of economic conditions. To achieve that objective, we analyze and monitor our liquidity risk under expected and stressed conditions, maintain liquidity and access to diverse funding sources, including our stable deposit base, and seek to align liquidity-related incentives and risks.

We define liquidity as readily available assets, limited to cash and high-quality, liquid, unencumbered securities that we can use to meet our contractual and contingent financial obligations as those obligations arise. We manage our liquidity position through line of business and ALM activities, as well as through our legal entity funding strategy, on both a forward and current (including intraday) basis under both expected and stressed conditions. We believe that a centralized approach to funding and liquidity management enhances our ability to monitor liquidity requirements, maximizes access to funding sources, minimizes borrowing costs and facilitates timely responses to liquidity events. For more information regarding global funding and liquidity risk management, as well as our liquidity sources, liquidity arrangements, contingency planning and credit ratings discussed below, see Liquidity Risk in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

NB Holdings Corporation

We have intercompany arrangements with certain key subsidiaries under which we transferred certain assets of Bank of America Corporation, as the parent company, which is a separate and distinct legal entity from our banking and nonbank subsidiaries, and agreed to transfer certain additional parent company assets not needed to satisfy anticipated near-term expenditures, to NB Holdings Corporation, a wholly-owned holding company subsidiary (NB Holdings). The parent company is expected to continue to have access to the same flow of dividends, interest and other amounts of cash necessary to service its debt, pay dividends and perform other obligations as it would have had if it had not entered into these arrangements and transferred any assets. These arrangements support our preferred single point of entry resolution strategy, under which only the parent company would be resolved under the U.S. Bankruptcy Code.

Global Liquidity Sources and Other Unencumbered Assets

Table 14 presents average Global Liquidity Sources (GLS) for the three months ended June 30, 2019 and December 31, 2018.

Table 14 Average Global Liquidity Sources

	Three Months Ended	
(Dollars in billions)	**June 30 2019**	December 31 2018
Parent company and NB Holdings	**$ 64**	$ 76
Bank subsidiaries	**432**	420
Other regulated entities	**56**	48
Total Average Global Liquidity Sources	**$ 552**	$ 544

We maintain liquidity available to the Corporation, including the parent company and selected subsidiaries, in the form of cash and high-quality, liquid, unencumbered securities. Typically, parent company and NB Holdings liquidity is in the form of cash deposited with BANA.

Our bank subsidiaries' liquidity is primarily driven by deposit and lending activity, as well as securities valuation and net debt activity. Liquidity at bank subsidiaries excludes the cash deposited by the parent company and NB Holdings. Our bank subsidiaries can also generate incremental liquidity by pledging a range of unencumbered loans and securities to certain FHLBs and the Federal Reserve Discount Window. The cash we could have obtained by borrowing against this pool of specifically-identified eligible assets was $356 billion and $344 billion at June 30, 2019 and December 31, 2018. We have established operational procedures to enable us to borrow against these assets, including regularly monitoring our total pool of eligible loans and securities collateral. Eligibility is defined in guidelines from the FHLBs and the Federal Reserve and is subject to change at their discretion. Due to regulatory restrictions, liquidity generated by the bank subsidiaries can generally be used only to fund obligations within the bank subsidiaries, and transfers to the parent company or nonbank subsidiaries may be subject to prior regulatory approval.

Liquidity held in other regulated entities, comprised primarily of broker-dealer subsidiaries, is primarily available to meet the obligations of that entity and transfers to the parent company or to any other subsidiary may be subject to prior regulatory approval due to regulatory restrictions and minimum requirements. Our other regulated entities also hold unencumbered investment-grade securities and equities that we believe could be used to generate additional liquidity.

Table 15 presents the composition of average GLS for the three months ended June 30, 2019 and December 31, 2018.

Table 15 Average Global Liquidity Sources Composition

	Three Months Ended	
(Dollars in billions)	**June 30 2019**	December 31 2018
Cash on deposit	**$ 101**	$ 113
U.S. Treasury securities	**97**	81
U.S. agency securities and mortgage-backed securities	**341**	340
Non-U.S. government securities	**13**	10
Total Average Global Liquidity Sources	**$ 552**	$ 544

Our GLS are substantially the same in composition to what qualifies as High Quality Liquid Assets (HQLA) under the final U.S. Liquidity Coverage Ratio (LCR) rules. However, HQLA for purposes of calculating LCR is not reported at market value, but at a lower value that incorporates regulatory deductions and the exclusion of excess liquidity held at certain subsidiaries. The LCR is calculated as the amount of a financial institution's unencumbered HQLA relative to the estimated net cash outflows the institution could encounter over a 30-day period of significant liquidity stress, expressed as a percentage. Our average consolidated HQLA, on a net basis, was $449 billion and $446 billion for the three months ended June 30, 2019 and December 31, 2018. For the same periods, the average consolidated LCR was 115 percent and 118 percent. Our LCR will fluctuate due to normal business flows from customer activity.

Liquidity Stress Analysis

We utilize liquidity stress analysis to assist us in determining the appropriate amounts of liquidity to maintain at the parent company and our subsidiaries to meet contractual and contingent cash outflows under a range of scenarios. For more information on our liquidity stress analysis, see Liquidity Risk – Liquidity Stress Analysis in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Diversified Funding Sources

We fund our assets primarily with a mix of deposits, and secured and unsecured liabilities through a centralized, globally coordinated funding approach diversified across products, programs, markets, currencies and investor groups. We fund a substantial portion of our lending activities through our deposits, which were $1.38 trillion at both June 30, 2019 and December 31, 2018.

Our trading activities in other regulated entities are primarily funded on a secured basis through securities lending and repurchase agreements, and these amounts will vary based on customer activity and market conditions.

Long-term Debt

During the six months ended June 30, 2019, we issued $32.6 billion of long-term debt consisting of $19.4 billion for Bank of

America Corporation, substantially all of which was TLAC eligible, $6.1 billion for Bank of America, N.A. and $7.1 billion of other debt. Substantially all of the long-term, TLAC-eligible senior notes issued by Bank of America Corporation since late 2016 are callable, at our option, at least one year before each stated maturity date. The call features give us the flexibility to retire long-term notes before their final year outstanding, when they are no longer eligible to count toward TLAC requirements, and replace them with new TLAC-eligible debt, should we choose to do so.

During the six months ended June 30, 2019, we had total long-term debt maturities and redemptions in the aggregate of $33.8 billion consisting of $13.2 billion for Bank of America Corporation, $16.1 billion for Bank of America, N.A. and $4.5 billion of other debt. Table 16 presents the carrying value of aggregate annual contractual maturities of long-term debt at June 30, 2019.

Table 16 Long-term Debt by Maturity

(Dollars in millions)	Remainder of 2019	2020	2021	2022	2023	Thereafter	Total
Bank of America Corporation							
Senior notes (1)	$ 3,568	$ 10,363	$ 15,988	$ 14,983	$ 23,141	$ 89,364	**$ 157,407**
Senior structured notes	1,204	848	500	2,030	315	12,131	**17,028**
Subordinated notes	—	—	347	383	—	21,586	**22,316**
Junior subordinated notes	—	—	—	—	—	736	**736**
Total Bank of America Corporation	4,772	11,211	16,835	17,396	23,456	123,817	**197,487**
Bank of America, N.A.							
Senior notes	—	2,750	2,000	—	511	20	**5,281**
Subordinated notes	—	—	—	—	—	1,732	**1,732**
Advances from Federal Home Loan Banks	2,004	2,510	2	3	1	100	**4,620**
Securitizations and other Bank VIEs (2)	—	3,099	4,023	—	—	—	**7,122**
Other	229	92	—	3	127	92	**543**
Total Bank of America, N.A.	2,233	8,451	6,025	6	639	1,944	**19,298**
Other debt							
Structured liabilities	2,649	3,910	1,341	816	1,018	11,224	**20,958**
Nonbank VIEs (2)	—	—	—	—	1	267	**268**
Total other debt	2,649	3,910	1,341	816	1,019	11,491	**21,226**
Total long-term debt	**$ 9,654**	**$ 23,572**	**$ 24,201**	**$ 18,218**	**$ 25,114**	**$ 137,252**	**$ 238,011**

(1) Total includes $101.1 billion of outstanding notes that are both TLAC eligible and callable at least one year before their stated maturities, including $1.0 billion that will be callable and become TLAC ineligible during the remainder of 2019, and $7.4 billion, $11.7 billion, $14.9 billion and $10.7 billion that will do so during each of 2020 through 2023, respectively, and $55.4 billion thereafter.

(2) Represents the total long-term debt included in the liabilities of consolidated VIEs on the Consolidated Balance Sheet.

Table 17 presents our long-term debt by major currency at June 30, 2019 and December 31, 2018.

Table 17 Long-term Debt by Major Currency

(Dollars in millions)	June 30 2019	December 31 2018
U.S. dollar	**$ 186,394**	$ 180,724
Euro	**34,490**	34,328
British pound	**5,453**	5,450
Japanese yen	**4,302**	3,038
Canadian dollar	**3,871**	2,936
Australian dollar	**1,822**	1,722
Other	**1,679**	1,194
Total long-term debt	**$ 238,011**	$ 229,392

Total long-term debt increased $8.6 billion during the six months ended June 30, 2019 primarily due to debt issuances and valuation adjustments, partially offset by maturities and redemptions. We may, from time to time, purchase outstanding debt instruments in various transactions, depending on market conditions, liquidity and other factors. Our other regulated entities may also make markets in our debt instruments to provide liquidity for investors. For more information on long-term debt funding, see *Note 11 – Long-term Debt* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

We use derivative transactions to manage the duration, interest rate and currency risks of our borrowings, considering the characteristics of the assets they are funding. For more information on our ALM activities, see Interest Rate Risk Management for the Banking Book on page 45.

We may issue unsecured debt in the form of structured notes for client purposes, certain of which qualify as TLAC-eligible debt. During the six months ended June 30, 2019, we issued $4.7 billion of structured notes, which are debt obligations that pay investors returns linked to other debt or equity securities, indices, currencies or commodities. We typically hedge the returns we are obligated to pay on these liabilities with derivatives and/or investments in the underlying instruments, so that from a funding perspective, the cost is similar to our other unsecured long-term debt. We could be required to settle certain structured note obligations for cash or other securities prior to maturity under certain circumstances, which we consider for liquidity planning purposes. We believe, however, that a portion of such borrowings will remain outstanding beyond the earliest put or redemption date.

Substantially all of our senior and subordinated debt obligations contain no provisions that could trigger a requirement for an early repayment, require additional collateral support, result in changes to terms, accelerate maturity or create additional financial obligations upon an adverse change in our credit ratings, financial ratios, earnings, cash flows or stock price.

Credit Ratings

Credit ratings and outlooks are opinions expressed by rating agencies on our creditworthiness and that of our obligations or securities, including long-term debt, short-term borrowings, preferred stock and other securities, including asset securitizations.

On June 12, 2019, Fitch Ratings (Fitch) completed its periodic review of the 12 large, complex securities trading and universal banks, including Bank of America Corporation. The agency affirmed the long-term and short-term senior debt ratings of the Corporation and all of its rated subsidiaries, except Bank of America Merrill Lynch International Designated Activity Company, which Fitch upgraded by one notch to AA-/F1+. The rating outlook for all long-term ratings is currently stable.

On March 6, 2019, Moody's Investors Service (Moody's) upgraded the long-term and short-term ratings of the Corporation by one notch to A2/P-1 from A3/P-2 for senior debt, as well as the long-term ratings of its rated subsidiaries, including BANA, which the agency upgraded to Aa2 from Aa3 for senior debt. Moody's concurrently affirmed the short-term ratings of the Corporation's rated subsidiaries, including BANA. Moody's cited the Corporation's strengthening profitability, continued adherence to a conservative risk profile and stable capital ratios as rationale for the upgrade. This concluded the review for upgrade that Moody's initiated on December 5, 2018. The rating outlook for all long-term ratings is currently stable.

The ratings from Standard & Poor's Global Ratings (S&P) for the Corporation and its subsidiaries did not change from those disclosed in the Corporation's 2018 Annual Report on Form 10-K. Table 18 presents the Corporation's current long-term/short-term senior debt ratings and outlooks expressed by the rating agencies.

BofAS and BofASE, which were initially rated by S&P and Fitch during the first quarter of 2019, are now operational in the U.S. and European Economic Area (excluding the U.K.). The long-term and the short-term debt ratings of both entities were unchanged during the second quarter of 2019.

For more information on additional collateral and termination payments that could be required in connection with certain over-the-counter derivative contracts and other trading agreements as a result of a credit rating downgrade, see *Note 3 – Derivatives* to the Consolidated Financial Statements herein and Item 1A. Risk Factors of the Corporation's 2018 Annual Report on Form 10-K.

Table 18 Senior Debt Ratings

	Moody's Investors Service			Standard & Poor's Global Ratings			Fitch Ratings		
	Long-term	Short-term	Outlook	Long-term	Short-term	Outlook	Long-term	Short-term	Outlook
Bank of America Corporation	A2	P-1	Stable	A-	A-2	Stable	A+	F1	Stable
Bank of America, N.A.	Aa2	P-1	Stable	A+	A-1	Stable	AA-	F1+	Stable
Bank of America Merrill Lynch International Designated Activity Company	NR	NR	NR	A+	A-1	Stable	AA-	F1+	Stable
Merrill Lynch, Pierce, Fenner & Smith Incorporated	NR	NR	NR	A+	A-1	Stable	AA-	F1+	Stable
BofA Securities, Inc.	NR	NR	NR	A+	A-1	Stable	AA-	F1+	Stable
Merrill Lynch International	NR	NR	NR	A+	A-1	Stable	A+	F1	Stable
BofA Securities Europe SA	NR	NR	NR	A+	A-1	Stable	A+	F1	Stable

NR = not rated

Credit Risk Management

For information on our credit risk management activities, see Consumer Portfolio Credit Risk Management below, Commercial Portfolio Credit Risk Management on page 35, Non-U.S. Portfolio on page 40, Provision for Credit Losses on page 41, Allowance for Credit Losses on page 41, and *Note 5 – Outstanding Loans and Leases* and *Note 6 – Allowance for Credit Losses* to the Consolidated Financial Statements. For information on the new accounting standard on credit losses that is effective on January 1, 2020 and the potential impact on our allowance for credit losses, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements.

Consumer Portfolio Credit Risk Management

Credit risk management for the consumer portfolio begins with initial underwriting and continues throughout a borrower's credit cycle. Statistical techniques in conjunction with experiential judgment are used in all aspects of portfolio management including underwriting, product pricing, risk appetite, setting credit limits, and establishing operating processes and metrics to quantify and balance risks and returns. Statistical models are built using detailed behavioral information from external sources such as credit bureaus and/or internal historical experience and are a component of our consumer credit risk management process. These models are used in part to assist in making both new and ongoing credit decisions, as well as portfolio management strategies, including authorizations and line management, collection practices and strategies, and determination of the allowance for loan and lease losses and allocated capital for credit risk.

Consumer Credit Portfolio

Improvement in home prices continued during the six months ended June 30, 2019 resulting in improved credit quality compared to the same period in 2018. Additionally, lower credit losses in the consumer real estate portfolio due primarily to non-core loan sales were partially offset by seasoning in the U.S. credit card portfolio compared to the same period in 2018.

Improved credit quality and continued loan balance runoff primarily in the non-core consumer real estate portfolio, partially offset by seasoning within the U.S. credit card portfolio, drove a $113 million decrease in the consumer allowance for loan and lease losses during the six months ended June 30, 2019 to $4.7 billion. For additional information, see Allowance for Credit Losses on page 41.

For more information on our accounting policies regarding delinquencies, nonperforming status, charge-offs and troubled debt restructurings (TDRs) for the consumer portfolio, see *Note 1 – Summary of Significant Accounting Principles* and *Note 5 – Outstanding Loans and Leases* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Table 19 presents our outstanding consumer loans and leases, consumer nonperforming loans and accruing consumer loans past due 90 days or more. Nonperforming loans do not include past due consumer credit card loans, other unsecured loans and in general, consumer loans not secured by real estate (bankruptcy loans are included) as these loans are typically charged off no later than the end of the month in which the loan becomes 180 days past due. Real estate-secured past due consumer loans that are insured by the FHA or individually insured under long-term standby agreements with Fannie Mae and Freddie Mac (collectively, the fully-insured loan portfolio) are reported as accruing as opposed to nonperforming since the principal repayment is insured. Fully-insured loans included in accruing past due 90 days or more are primarily from our repurchases of delinquent FHA loans pursuant to our servicing agreements with the Government National Mortgage Association (GNMA). Nonperforming loans and accruing balances past due 90 days or more also do not include loans accounted for under the fair value option even though the customer may be contractually past due.

Table 19 Consumer Credit Quality

(Dollars in millions)	Outstandings June 30 2019	Outstandings December 31 2018	Nonperforming June 30 2019	Nonperforming December 31 2018	Accruing Past Due 90 Days or More June 30 2019	Accruing Past Due 90 Days or More December 31 2018
Residential mortgage (1)	**$ 219,929**	$ 208,557	**$ 1,744**	$ 1,893	**$ 1,364**	$ 1,884
Home equity	**44,134**	48,286	**1,203**	1,893	**—**	—
U.S. credit card	**93,989**	98,338	**n/a**	n/a	**941**	994
Direct/Indirect consumer (2)	**90,850**	91,166	**80**	56	**28**	38
Other consumer	**174**	202	**—**	—	**—**	—
Consumer loans excluding loans accounted for under the fair value option	**$ 449,076**	$ 446,549	**$ 3,027**	$ 3,842	**$ 2,333**	$ 2,916
Loans accounted for under the fair value option (3)	**658**	682				
Total consumer loans and leases	**$ 449,734**	$ 447,231				
Percentage of outstanding consumer loans and leases (4)	**n/a**	n/a	**0.67%**	0.86%	**0.52%**	0.65%
Percentage of outstanding consumer loans and leases, excluding fully-insured loan portfolios (4)	**n/a**	n/a	**0.70**	0.90	**0.23**	0.24

(1) Residential mortgage loans accruing past due 90 days or more are fully-insured loans. At June 30, 2019 and December 31, 2018, residential mortgage includes $1.1 billion and $1.4 billion of loans on which interest had been curtailed by the FHA, and therefore were no longer accruing interest, although principal was still insured, and $345 million and $498 million of loans on which interest was still accruing.
(2) Outstandings include auto and specialty lending loans and leases of $50.3 billion and $50.1 billion, unsecured consumer lending loans of $344 million and $383 million, U.S. securities-based lending loans of $36.5 billion and $37.0 billion, non-U.S. consumer loans of $2.9 billion and $2.9 billion and other consumer loans of $811 million and $746 million at June 30, 2019 and December 31, 2018.
(3) Consumer loans accounted for under the fair value option include residential mortgage loans of $300 million and $336 million and home equity loans of $358 million and $346 million at June 30, 2019 and December 31, 2018. For more information on the fair value option, see *Note 16 – Fair Value Option* to the Consolidated Financial Statements.
(4) Excludes consumer loans accounted for under the fair value option. At June 30, 2019 and December 31, 2018, $10 million and $12 million of loans accounted for under the fair value option were past due 90 days or more and not accruing interest.
n/a = not applicable

Table 20 presents net charge-offs and related ratios for consumer loans and leases.

Table 20 Consumer Net Charge-offs and Related Ratios

(Dollars in millions)	Net Charge-offs Three Months Ended June 30 2019	2018	Net Charge-offs Six Months Ended June 30 2019	2018	Net Charge-off Ratios (1) Three Months Ended June 30 2019	2018	Net Charge-off Ratios (1) Six Months Ended June 30 2019	2018
Residential mortgage	**$ 3**	$ 7	**$ (13)**	$ 1	**0.01 %**	0.01%	**(0.01)%**	—%
Home equity	**(155)**	—	**(144)**	33	**(1.36)**	—	**(0.62)**	0.12
U.S. credit card	**762**	739	**1,507**	1,440	**3.26**	3.17	**3.22**	3.09
Direct/Indirect consumer	**40**	41	**94**	100	**0.18**	0.18	**0.21**	0.21
Other consumer	**41**	43	**82**	86	**n/m**	n/m	**n/m**	n/m
Total	**$ 691**	$ 830	**$ 1,526**	$ 1,660	**0.62**	0.74	**0.69**	0.75

(1) Net charge-off ratios are calculated as annualized net charge-offs divided by average outstanding loans and leases excluding loans accounted for under the fair value option.
n/m = not meaningful

Table 21 presents outstandings, nonperforming balances, net charge-offs, allowance for loan and lease losses and provision for loan and lease losses for the core and non-core portfolios within the consumer real estate portfolio. We categorize consumer real estate loans as core and non-core based on loan and customer characteristics such as origination date, product type, loan-to-value (LTV), Fair Isaac Corporation (FICO) score and delinquency status consistent with our current consumer and mortgage servicing strategy. Generally, loans that were originated after January 1, 2010, qualified under government-sponsored enterprise underwriting guidelines, or otherwise met our underwriting guidelines in place in 2015 are characterized as core loans. All other loans are generally characterized as non-core loans and represent runoff portfolios. Core loans as reported in Table 21 include loans held in the *Consumer Banking* and *GWIM* segments, as well as loans held for ALM activities in *All Other*.

As shown in Table 21, outstanding core consumer real estate loans increased $11.1 billion during the six months ended June 30, 2019 driven by an increase of $13.5 billion in residential mortgage, partially offset by a $2.4 billion decrease in home equity. During the three and six months ended June 30, 2019, we sold $891 million and $1.8 billion of consumer real estate loans.

Table 21 Consumer Real Estate Portfolio (1)

(Dollars in millions)	Outstandings June 30 2019	Outstandings December 31 2018	Nonperforming June 30 2019	Nonperforming December 31 2018	Net Charge-offs Three Months Ended June 30 2019	Net Charge-offs Three Months Ended June 30 2018	Net Charge-offs Six Months Ended June 30 2019	Net Charge-offs Six Months Ended June 30 2018
Core portfolio								
Residential mortgage	**$ 207,257**	$ 193,695	**$ 989**	$ 1,010	**$ 7**	$ 4	**$ 4**	$ 13
Home equity	**37,577**	40,010	**727**	955	**10**	14	**31**	37
Total core portfolio	**244,834**	233,705	**1,716**	1,965	**17**	18	**35**	50
Non-core portfolio								
Residential mortgage	**12,672**	14,862	**755**	883	**(4)**	3	**(17)**	(12)
Home equity	**6,557**	8,276	**476**	938	**(165)**	(14)	**(175)**	(4)
Total non-core portfolio	**19,229**	23,138	**1,231**	1,821	**(169)**	(11)	**(192)**	(16)
Consumer real estate portfolio								
Residential mortgage	**219,929**	208,557	**1,744**	1,893	**3**	7	**(13)**	1
Home equity	**44,134**	48,286	**1,203**	1,893	**(155)**	—	**(144)**	33
Total consumer real estate portfolio	**$ 264,063**	$ 256,843	**$ 2,947**	$ 3,786	**$ (152)**	$ 7	**$ (157)**	$ 34

	Allowance for Loan and Lease Losses June 30 2019	Allowance for Loan and Lease Losses December 31 2018	Provision for Loan and Lease Losses Three Months Ended June 30 2019	Provision Three Months Ended June 30 2018	Provision Six Months Ended June 30 2019	Provision Six Months Ended June 30 2018
Core portfolio						
Residential mortgage	**$ 217**	$ 214	**$ 11**	$ 1	**$ 7**	$ 9
Home equity	**164**	228	**(11)**	(23)	**(33)**	(24)
Total core portfolio	**381**	442	**—**	(22)	**(26)**	(15)
Non-core portfolio						
Residential mortgage	**141**	208	**(21)**	(39)	**(52)**	(125)
Home equity	**197**	278	**(218)**	(60)	**(231)**	(109)
Total non-core portfolio	**338**	486	**(239)**	(99)	**(283)**	(234)
Consumer real estate portfolio						
Residential mortgage	**358**	422	**(10)**	(38)	**(45)**	(116)
Home equity	**361**	506	**(229)**	(83)	**(264)**	(133)
Total consumer real estate portfolio	**$ 719**	$ 928	**$ (239)**	$ (121)	**$ (309)**	$ (249)

(1) Outstandings and nonperforming loans exclude loans accounted for under the fair value option. Consumer loans accounted for under the fair value option include residential mortgage loans of $300 million and $336 million and home equity loans of $358 million and $346 million at June 30, 2019 and December 31, 2018. For additional information, see *Note 16 – Fair Value Option* to the Consolidated Financial Statements.

We believe that the presentation of information adjusted to exclude the impact of the fully-insured loan portfolio and loans accounted for under the fair value option is more representative of the ongoing operations and credit quality of the business. As a result, in the following tables and discussions of the residential mortgage and home equity portfolios, we exclude loans accounted for under the fair value option and provide information that excludes the impact of the fully-insured loan portfolio in certain credit quality statistics.

Residential Mortgage

The residential mortgage portfolio made up the largest percentage of our consumer loan portfolio at 49 percent of consumer loans and leases at June 30, 2019. Approximately 47 percent of the residential mortgage portfolio was in *Consumer Banking* and 36 percent was in *GWIM*. The remaining portion was in *All Other* and was comprised of originated loans, purchased loans used in our overall ALM activities, delinquent FHA loans repurchased pursuant to our servicing agreements with GNMA as well as loans repurchased related to our representations and warranties.

Outstanding balances in the residential mortgage portfolio increased $11.4 billion during the six months ended June 30, 2019 as retention of new originations was partially offset by loan sales of $1.0 billion and runoff.

At June 30, 2019 and December 31, 2018, the residential mortgage portfolio included $19.3 billion and $20.1 billion of outstanding fully-insured loans, of which $12.7 billion and $14.0 billion had FHA insurance with the remainder protected by long-term standby agreements.

Table 22 presents certain residential mortgage key credit statistics on both a reported basis and excluding the fully-insured loan portfolio. The following discussion presents the residential mortgage portfolio excluding the fully-insured loan portfolio.

Table 22 Residential Mortgage – Key Credit Statistics

(Dollars in millions)	Reported Basis (1) June 30 2019	Reported Basis (1) December 31 2018	Excluding Fully-insured Loans (1) June 30 2019	Excluding Fully-insured Loans (1) December 31 2018
Outstandings	**$ 219,929**	$ 208,557	**$ 200,621**	$ 188,427
Accruing past due 30 days or more	**3,208**	3,945	**1,053**	1,155
Accruing past due 90 days or more	**1,364**	1,884	**—**	—
Nonperforming loans	**1,744**	1,893	**1,744**	1,893
Percent of portfolio				
Refreshed LTV greater than 90 but less than or equal to 100	**2%**	2%	**2%**	2%
Refreshed LTV greater than 100	**1**	1	**1**	1
Refreshed FICO below 620	**3**	4	**2**	2
2006 and 2007 vintages (2)	**5**	6	**5**	6

(1) Outstandings, accruing past due, nonperforming loans and percentages of portfolio exclude loans accounted for under the fair value option.
(2) These vintages of loans accounted for $479 million, or 27 percent, and $536 million, or 28 percent, of nonperforming residential mortgage loans at June 30, 2019 and December 31, 2018.

Nonperforming residential mortgage loans decreased $149 million during the six months ended June 30, 2019 primarily driven by sales. Of the nonperforming residential mortgage loans at June 30, 2019, $711 million, or 41 percent, were current on contractual payments. Loans accruing past due 30 days or more decreased $102 million due to continued improvement in credit quality as well as loan sales in the non-core portfolio.

Net charge-offs decreased $4 million to $3 million and $14 million to a net recovery of $13 million for the three and six months ended June 30, 2019 compared to the same periods in 2018 primarily due to continued improvement in credit quality.

Loans with a refreshed LTV greater than 100 percent represented one percent of the residential mortgage loan portfolio at both June 30, 2019 and December 31, 2018. Of the loans with a refreshed LTV greater than 100 percent, less than one percent were nonperforming at both June 30, 2019 and December 31, 2018. Loans with a refreshed LTV greater than 100 percent reflect loans where the outstanding carrying value of the loan is greater than the most recent valuation of the property securing the loan.

Of the $200.6 billion in total residential mortgage loans outstanding at June 30, 2019, as shown in Table 22, 28 percent were originated as interest-only loans. The outstanding balance of interest-only residential mortgage loans that have entered the amortization period was $8.5 billion, or 15 percent, at June 30, 2019. Residential mortgage loans that have entered the amortization period generally have experienced a higher rate of early stage delinquencies and nonperforming status compared to the residential mortgage portfolio as a whole. At June 30, 2019, $168 million, or two percent, of outstanding interest-only residential mortgages that had entered the amortization period were accruing past due 30 days or more compared to $1.1 billion, or one percent, for the entire residential mortgage portfolio. In addition, at June 30, 2019, $371 million, or four percent, of outstanding interest-only residential mortgage loans that had entered the amortization period were nonperforming, of which $143 million were contractually current, compared to $1.7 billion, or one percent, for the entire residential mortgage portfolio. Loans that have yet to enter the amortization period in our interest-only residential mortgage portfolio are primarily well-collateralized loans to our wealth management clients and have an interest-only period of three to ten years. Approximately 92 percent of these loans that have yet to enter the amortization period will not be required to make a fully-amortizing payment until 2022 or later.

Table 23 presents outstandings, nonperforming loans and net charge-offs by certain state concentrations for the residential mortgage portfolio. The Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area (MSA) within California represented 16 percent of outstandings at both June 30, 2019 and December 31, 2018. In the New York area, the New York-Northern New Jersey-Long Island MSA made up 13 percent of outstandings at both June 30, 2019 and December 31, 2018.

Table 23 Residential Mortgage State Concentrations

(Dollars in millions)	Outstandings (1) June 30 2019	Outstandings (1) December 31 2018	Nonperforming (1) June 30 2019	Nonperforming (1) December 31 2018	Net Charge-offs Three Months Ended June 30 2019	Net Charge-offs Three Months Ended June 30 2018	Net Charge-offs Six Months Ended June 30 2019	Net Charge-offs Six Months Ended June 30 2018
California	**$ 81,777**	$ 76,323	**$ 314**	$ 314	**$ (2)**	$ (7)	**$ (10)**	$ (17)
New York (2)	**20,564**	19,219	**195**	222	**1**	2	**1**	6
Florida (2)	**12,169**	11,624	**192**	221	**(1)**	—	**(4)**	(5)
Texas	**8,286**	7,820	**86**	102	**—**	2	**(1)**	3
New Jersey (2)	**7,741**	7,051	**95**	98	**—**	3	**(2)**	5
Other	**70,084**	66,390	**862**	936	**5**	7	**3**	9
Residential mortgage loans (3)	**$ 200,621**	$ 188,427	**$ 1,744**	$ 1,893	**$ 3**	$ 7	**$ (13)**	$ 1
Fully-insured loan portfolio	**19,308**	20,130						
Total residential mortgage loan portfolio	**$ 219,929**	$ 208,557						

(1) Outstandings and nonperforming loans exclude loans accounted for under the fair value option.
(2) In these states, foreclosure requires a court order following a legal proceeding (judicial states).
(3) Amounts exclude the fully-insured loan portfolio.

Home Equity

At June 30, 2019, the home equity portfolio made up 10 percent of the consumer portfolio and was comprised of home equity lines of credit (HELOCs), home equity loans and reverse mortgages.

At June 30, 2019, our HELOC portfolio had an outstanding balance of $40.8 billion, or 92 percent of the total home equity portfolio, compared to $44.3 billion, also 92 percent, at December 31, 2018. HELOCs generally have an initial draw period of 10 years, and after the initial draw period ends, the loans generally convert to 15- or 20-year amortizing loans.

At June 30, 2019, our home equity loan portfolio had an outstanding balance of $1.6 billion, or four percent of the total home equity portfolio, compared to $1.8 billion, also four percent, at December 31, 2018. Home equity loans are almost all fixed-rate loans with amortizing payment terms of 10 to 30 years, and of the $1.6 billion at June 30, 2019, 69 percent have 25- to 30-year terms. At June 30, 2019, our reverse mortgage portfolio had an outstanding balance of $1.7 billion, or four percent of the total home equity portfolio, compared to $2.2 billion, also four percent, at December 31, 2018. We no longer originate reverse mortgages.

At June 30, 2019, 77 percent of the home equity portfolio was in *Consumer Banking*, 15 percent was in *All Other* and the remainder of the portfolio was primarily in *GWIM*. Outstanding balances in the home equity portfolio decreased $4.2 billion during the six months ended June 30, 2019 primarily due to paydowns and loan sales of $803 million outpacing new originations and draws on existing lines. Of the total home equity portfolio at June 30, 2019 and December 31, 2018, $16.1 billion, or 36 percent, and $17.3 billion, or 36 percent, were in first-lien positions. At June 30, 2019, outstanding balances in the home equity portfolio that were in a second-lien or more junior-lien position and where we also held the first-lien loan totaled $7.5 billion, or 17 percent of our total home equity portfolio.

Unused HELOCs totaled $43.5 billion at June 30, 2019 compared to $43.1 billion at December 31, 2018. The increase was primarily driven by the impact of new production partially offset by accounts reaching the end of their draw period, which automatically eliminates open line exposure, and customers choosing to close accounts. The HELOC utilization rate was 48 percent and 51 percent at June 30, 2019 and December 31, 2018.

Table 24 presents certain home equity portfolio key credit statistics.

Table 24 Home Equity – Key Credit Statistics (1)

(Dollars in millions)	June 30 2019	December 31 2018
Outstandings	$ 44,134	$ 48,286
Accruing past due 30 days or more (2)	266	363
Nonperforming loans (2)	1,203	1,893
Percent of portfolio		
Refreshed CLTV greater than 90 but less than or equal to 100	2%	2%
Refreshed CLTV greater than 100	3	3
Refreshed FICO below 620	4	5
2006 and 2007 vintages (3)	20	22

(1) Outstandings, accruing past due, nonperforming loans and percentages of the portfolio exclude loans accounted for under the fair value option.
(2) Accruing past due 30 days or more include $38 million and $48 million and nonperforming loans include $117 million and $218 million of loans where we serviced the underlying first lien at June 30, 2019 and December 31, 2018.
(3) These vintages of loans have higher refreshed combined loan-to-value (CLTV) ratios and accounted for 45 percent and 49 percent of nonperforming home equity loans at June 30, 2019 and December 31, 2018.

Nonperforming outstanding balances in the home equity portfolio decreased $690 million during the six months ended June 30, 2019 as outflows, including sales, outpaced new inflows. Of the nonperforming home equity loans at June 30, 2019, $626 million, or 52 percent, were current on contractual payments. Nonperforming loans that are contractually current primarily consist of collateral-dependent TDRs, including those that have been discharged in Chapter 7 bankruptcy, junior-lien loans where the underlying first lien is 90 days or more past due, as well as loans that have not yet demonstrated a sustained period of payment performance following a TDR. We estimate that approximately $139 million of junior-lien loans had first-lien loans that were 90 days or more past due. In addition, $354 million, or 29 percent, of nonperforming home equity loans were 180 days or more past due and had been written down to the estimated fair value of the collateral, less costs to sell. Accruing loans that were 30 days or more past due decreased $97 million during the six months ended June 30, 2019.

Net charge-offs decreased $155 million to a net recovery of $155 million, and $177 million to a net recovery of $144 million for the three and six months ended June 30, 2019 compared to the same periods in 2018 primarily driven by recoveries from the sales of previously charged off non-core home equity loans.

Outstanding balances with a refreshed CLTV greater than 100 percent comprised three percent of the home equity portfolio at both June 30, 2019 and December 31, 2018. Outstanding balances with a refreshed CLTV greater than 100 percent reflect loans where our loan and available line of credit combined with any outstanding senior liens against the property are equal to or greater than the most recent valuation of the property securing the loan. Depending on the value of the property, there may be collateral in excess of the first lien that is available to reduce the severity of loss on the second lien. Of those outstanding balances with a refreshed CLTV greater than 100 percent, 96 percent of the customers were current on their home equity loan and 92 percent of second-lien loans with a refreshed CLTV greater than 100 percent were current on both their second-lien and underlying first-lien loans at June 30, 2019.

Of the $44.1 billion in total home equity portfolio outstandings at June 30, 2019, as shown in Table 24, 18 percent require interest-only payments. The outstanding balance of HELOCs that have reached the end of their draw period and have entered the amortization period was $13.8 billion at June 30, 2019. The HELOCs that have entered the amortization period have experienced a higher percentage of early stage delinquencies and nonperforming status when compared to the HELOC portfolio as a whole. At June 30, 2019, $189 million, or one percent, of outstanding HELOCs that had entered the amortization period were accruing past due 30 days or more. In addition, at June 30, 2019, $1.0 billion, or eight percent, were nonperforming. For more information on HELOC amortization, see Consumer Portfolio Credit

Risk Management in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Although we do not actively track how many of our home equity customers pay only the minimum amount due on their home equity loans and lines, we can infer some of this information through a review of our HELOC portfolio that we service and that is still in its revolving period. During the three months ended June 30, 2019, 26 percent of these customers with an outstanding balance did not pay any principal on their HELOCs.

Table 25 presents outstandings, nonperforming balances and net charge-offs by certain state concentrations for the home equity portfolio. In the New York area, the New York-Northern New Jersey-Long Island MSA made up 13 percent of the outstanding home equity portfolio at both June 30, 2019 and December 31, 2018. The Los Angeles-Long Beach-Santa Ana MSA within California made up 11 percent of the outstanding home equity portfolio at both June 30, 2019 and December 31, 2018.

Table 25 Home Equity State Concentrations

	Outstandings (1)		Nonperforming (1)		Net Charge-offs			
					Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	June 30 2019	December 31 2018	June 30 2019	December 31 2018	2019	2018	2019	2018
California	$ 12,358	$ 13,515	$ 288	$ 536	$ (50)	$ (14)	$ (55)	$ (21)
Florida (2)	4,841	5,418	186	315	(39)	3	(42)	13
New Jersey (2)	3,549	3,871	107	150	(3)	5	2	14
New York (2)	3,228	3,590	148	194	(4)	2	6	8
Massachusetts	2,203	2,400	49	65	—	1	—	3
Other	17,955	19,492	425	633	(59)	3	(55)	16
Total home equity loan portfolio	$ 44,134	$ 48,286	$ 1,203	$ 1,893	$ (155)	$ —	$ (144)	$ 33

(1) Outstandings and nonperforming loans exclude loans accounted for under the fair value option.
(2) In these states, foreclosure requires a court order following a legal proceeding (judicial states).

U.S. Credit Card

At June 30, 2019, 97 percent of the U.S. credit card portfolio was managed in *Consumer Banking* with the remainder in *GWIM*. Outstandings in the U.S. credit card portfolio decreased $4.3 billion during the six months ended June 30, 2019 to $94.0 billion due to a seasonal decline in purchase volumes. Net charge-offs increased $23 million to $762 million and $67 million to $1.5 billion during the three and six months ended June 30, 2019 compared to the same periods in 2018 due to portfolio seasoning. U.S. credit card loans 30 days or more past due and still accruing interest decreased $151 million during the six months ended June 30, 2019 and 90 days or more past due and still accruing interest decreased $53 million, driven by seasonal declines.

Unused lines of credit for U.S. credit card totaled $342.5 billion and $334.8 billion at June 30, 2019 and December 31, 2018. The increase in unused lines was driven by seasonally lower purchase volumes, as well as account growth and lines of credit increases.

Table 26 presents certain state concentrations for the U.S. credit card portfolio.

Table 26 U.S. Credit Card State Concentrations

	Outstandings		Accruing Past Due 90 Days or More		Net Charge-offs			
					Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	June 30 2019	December 31 2018	June 30 2019	December 31 2018	2019	2018	2019	2018
California	$ 15,463	$ 16,062	$ 164	$ 163	$ 134	$ 122	$ 266	$ 238
Florida	8,534	8,840	117	119	92	91	182	168
Texas	7,445	7,730	82	84	63	59	122	115
New York	5,773	6,066	81	81	59	72	120	142
Washington	4,453	4,558	22	24	18	17	36	32
Other	52,321	55,082	475	523	396	378	781	745
Total U.S. credit card portfolio	$ 93,989	$ 98,338	$ 941	$ 994	$ 762	$ 739	$ 1,507	$ 1,440

Direct/Indirect Consumer

At June 30, 2019, 56 percent of the direct/indirect portfolio was included in *Consumer Banking* (consumer auto and specialty lending – automotive, recreational vehicle, marine, aircraft and consumer personal loans) and 44 percent was included in *GWIM* (principally securities-based lending loans).

Outstandings in the direct/indirect portfolio decreased $316 million during the six months ended June 30, 2019 to $90.9 billion primarily due to declines in securities-based lending driven by repayments and lower draws. Net charge-offs decreased $1 million to $40 million and $6 million to $94 million during the three and six months ended June 30, 2019 compared to the same periods in 2018.

Table 27 presents certain state concentrations for the direct/indirect consumer loan portfolio.

Table 27 Direct/Indirect State Concentrations

(Dollars in millions)	Outstandings June 30 2019	Outstandings December 31 2018	Accruing Past Due 90 Days or More June 30 2019	Accruing Past Due 90 Days or More December 31 2018	Net Charge-offs Three Months Ended June 30 2019	Net Charge-offs Three Months Ended June 30 2018	Net Charge-offs Six Months Ended June 30 2019	Net Charge-offs Six Months Ended June 30 2018
California	**$ 11,740**	$ 11,734	**$ 3**	$ 4	**$ 5**	$ 5	**$ 12**	$ 11
Florida	**10,034**	10,240	**3**	4	**8**	9	**16**	19
Texas	**9,698**	9,876	**4**	6	**5**	7	**15**	16
New York	**6,343**	6,296	**1**	2	**3**	2	**6**	5
New Jersey	**3,358**	3,308	**1**	1	**1**	—	**2**	1
Other	**49,677**	49,712	**16**	21	**18**	18	**43**	48
Total direct/indirect loan portfolio	**$ 90,850**	$ 91,166	**$ 28**	$ 38	**$ 40**	$ 41	**$ 94**	$ 100

Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity

Table 28 presents nonperforming consumer loans, leases and foreclosed properties activity for the three and six months ended June 30, 2019 and 2018. During the six months ended June 30, 2019, nonperforming consumer loans decreased $815 million to $3.0 billion primarily driven by loan sales of $666 million.

At June 30, 2019, $950 million, or 31 percent, of nonperforming loans were 180 days or more past due and had been written down to their estimated property value less costs to sell. In addition, at June 30, 2019, $1.4 billion, or 46 percent, of nonperforming consumer loans were modified and are now current after successful trial periods, or are current loans classified as nonperforming loans in accordance with applicable policies.

Foreclosed properties decreased $39 million during the six months ended June 30, 2019 to $205 million as liquidations outpaced additions. Certain delinquent government-guaranteed loans (principally FHA-insured loans) are excluded from our nonperforming loans and foreclosed properties activity as we expect we will be reimbursed once the property is conveyed to the guarantor for principal and, up to certain limits, costs incurred during the foreclosure process and interest accrued during the holding period.

We classify junior-lien home equity loans as nonperforming when the first-lien loan becomes 90 days past due even if the junior-lien loan is performing. At June 30, 2019 and December 31, 2018, $139 million and $221 million of such junior-lien home equity loans were included in nonperforming loans and leases.

Nonperforming loans also include certain loans that have been modified in TDRs where economic concessions have been granted to borrowers experiencing financial difficulties. Nonperforming TDRs are included in Table 28.

Table 28 Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity

(Dollars in millions)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	Six Months Ended June 30 2019	Six Months Ended June 30 2018
Nonperforming loans and leases, beginning of period	**$ 3,578**	$ 4,906	**$ 3,842**	$ 5,166
Additions	**390**	599	**781**	1,411
Reductions:				
Paydowns and payoffs	**(195)**	(261)	**(383)**	(506)
Sales	**(502)**	(117)	**(666)**	(386)
Returns to performing status (1)	**(189)**	(336)	**(438)**	(700)
Charge-offs	**(29)**	(114)	**(57)**	(261)
Transfers to foreclosed properties	**(26)**	(38)	**(52)**	(83)
Transfers to loans held-for-sale	**—**	—	**—**	(2)
Total net reductions to nonperforming loans and leases	**(551)**	(267)	**(815)**	(527)
Total nonperforming loans and leases, June 30	**3,027**	4,639	**3,027**	4,639
Foreclosed properties, June 30 (2)	**205**	263	**205**	263
Nonperforming consumer loans, leases and foreclosed properties, June 30	**$ 3,232**	$ 4,902	**$ 3,232**	$ 4,902
Nonperforming consumer loans and leases as a percentage of outstanding consumer loans and leases (3)	**0.67%**	1.03%		
Nonperforming consumer loans, leases and foreclosed properties as a percentage of outstanding consumer loans, leases and foreclosed properties (3)	**0.72**	1.09		

(1) Consumer loans may be returned to performing status when all principal and interest is current and full repayment of the remaining contractual principal and interest is expected, or when the loan otherwise becomes well-secured and is in the process of collection.
(2) Foreclosed property balances do not include properties insured by certain government-guaranteed loans, principally FHA-insured, of $294 million and $573 million at June 30, 2019 and 2018.
(3) Outstanding consumer loans and leases exclude loans accounted for under the fair value option.

Table 29 presents TDRs for the consumer real estate portfolio. Performing TDR balances are excluded from nonperforming loans and leases in Table 28.

Table 29 Consumer Real Estate Troubled Debt Restructurings

(Dollars in millions)	June 30, 2019 Nonperforming	June 30, 2019 Performing	June 30, 2019 Total	December 31, 2018 Nonperforming	December 31, 2018 Performing	December 31, 2018 Total
Residential mortgage (1, 2)	**$ 1,110**	**$ 4,379**	**$ 5,489**	$ 1,209	$ 4,988	$ 6,197
Home equity (3)	**631**	**1,132**	**1,763**	1,107	1,252	2,359
Total consumer real estate troubled debt restructurings	**$ 1,741**	**$ 5,511**	**$ 7,252**	$ 2,316	$ 6,240	$ 8,556

(1) At June 30, 2019 and December 31, 2018, residential mortgage TDRs deemed collateral dependent totaled $1.5 billion and $1.6 billion, and included $916 million and $960 million of loans classified as nonperforming and $538 million and $605 million of loans classified as performing.
(2) Residential mortgage performing TDRs include $2.3 billion and $2.8 billion of loans that were fully-insured at June 30, 2019 and December 31, 2018.
(3) At June 30, 2019 and December 31, 2018, home equity TDRs deemed collateral dependent totaled $817 million and $1.3 billion, and include $534 million and $961 million of loans classified as nonperforming and $283 million and $322 million of loans classified as performing.

In addition to modifying consumer real estate loans, we work with customers who are experiencing financial difficulty by modifying credit card and other consumer loans. Credit card and other consumer loan modifications generally involve a reduction in the customer's interest rate on the account and placing the customer on a fixed payment plan not exceeding 60 months, all of which are considered TDRs (the renegotiated TDR portfolio).

Modifications of credit card and other consumer loans are made through renegotiation programs utilizing direct customer contact, but may also utilize external renegotiation programs. The renegotiated TDR portfolio is excluded in large part from Table 28 as substantially all of the loans remain on accrual status until either charged off or paid in full. At June 30, 2019 and December 31, 2018, our renegotiated TDR portfolio was $627 million and $566 million, of which $533 million and $481 million were current or less than 30 days past due under the modified terms. The increase in the renegotiated TDR portfolio was primarily driven by new renegotiated enrollments outpacing runoff of existing portfolios.

Commercial Portfolio Credit Risk Management

Commercial credit risk is evaluated and managed with the goal that concentrations of credit exposure continue to be aligned with our risk appetite. We review, measure and manage concentrations of credit exposure by industry, product, geography, customer relationship and loan size. We also review, measure and manage commercial real estate loans by geographic location and property type. In addition, within our non-U.S. portfolio, we evaluate exposures by region and by country. Tables 34, 37 and 40 summarize our concentrations. We also utilize syndications of exposure to third parties, loan sales, hedging and other risk mitigation techniques to manage the size and risk profile of the
commercial credit portfolio. For more information on our industry concentrations, see Commercial Portfolio Credit Risk Management – Industry Concentrations on page 38 and Table 37.

For more information on our accounting policies regarding delinquencies, nonperforming status and net charge-offs for the commercial portfolio, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Commercial Credit Portfolio

During the six months ended June 30, 2019, credit quality among large corporate and middle-market borrowers in our commercial and industrial portfolio remained strong. Credit quality of commercial real estate borrowers in most sectors remained stable with conservative LTV ratios. However, some of the real estate markets experienced slowing tenant demand and decelerating rental income.

Total commercial utilized credit exposure increased $7.8 billion during the six months ended June 30, 2019 to $628.8 billion primarily driven by higher loans and leases, partially offset by lower loans held-for-sale. The utilization rate for loans and leases, standby letters of credit (SBLCs) and financial guarantees, and commercial letters of credit, in the aggregate, was 59 percent at both June 30, 2019 and December 31, 2018.

Table 30 presents commercial credit exposure by type for utilized, unfunded and total binding committed credit exposure. Commercial utilized credit exposure includes SBLCs and financial guarantees and commercial letters of credit that have been issued and for which we are legally bound to advance funds under prescribed conditions during a specified time period, and excludes exposure related to trading account assets. Although funds have not yet been advanced, these exposure types are considered utilized for credit risk management purposes.

Table 30 Commercial Credit Exposure by Type

(Dollars in millions)	Commercial Utilized (1) June 30 2019	Commercial Utilized (1) December 31 2018	Commercial Unfunded (2, 3, 4) June 30 2019	Commercial Unfunded (2, 3, 4) December 31 2018	Total Commercial Committed June 30 2019	Total Commercial Committed December 31 2018
Loans and leases	**$ 514,066**	$ 499,664	**$ 378,230**	$ 369,282	**$ 892,296**	$ 868,946
Derivative assets (5)	**44,912**	43,725	**—**	—	**44,912**	43,725
Standby letters of credit and financial guarantees	**33,173**	34,941	**673**	491	**33,846**	35,432
Debt securities and other investments	**24,033**	25,425	**5,094**	4,250	**29,127**	29,675
Loans held-for-sale	**4,088**	9,090	**18,817**	14,812	**22,905**	23,902
Operating leases	**6,345**	6,060	**—**	—	**6,345**	6,060
Commercial letters of credit	**1,255**	1,210	**874**	168	**2,129**	1,378
Other	**897**	898	**—**	—	**897**	898
Total	**$ 628,769**	$ 621,013	**$ 403,688**	$ 389,003	**$ 1,032,457**	$ 1,010,016

(1) Commercial utilized exposure includes loans of $7.2 billion and $3.7 billion and issued letters of credit with a notional amount of $107 million and $100 million accounted for under the fair value option at June 30, 2019 and December 31, 2018.
(2) Commercial unfunded exposure includes commitments accounted for under the fair value option with a notional amount of $4.5 billion and $3.0 billion at June 30, 2019 and December 31, 2018.
(3) Excludes unused business card lines, which are not legally binding.
(4) Includes the notional amount of unfunded legally binding lending commitments net of amounts distributed (i.e., syndicated or participated) to other financial institutions. The distributed amounts were $10.6 billion and $10.7 billion at June 30, 2019 and December 31, 2018.
(5) Derivative assets are carried at fair value, reflect the effects of legally enforceable master netting agreements and have been reduced by cash collateral of $33.9 billion and $32.4 billion at June 30, 2019 and December 31, 2018. Not reflected in utilized and committed exposure is additional non-cash derivative collateral held of $33.1 billion and $33.0 billion at June 30, 2019 and December 31, 2018, which consists primarily of other marketable securities.

Outstanding commercial loans and leases increased $14.4 billion during the six months ended June 30, 2019 primarily in the commercial and industrial portfolio. The allowance for loan and lease losses for the commercial portfolio increased $39 million to $4.8 billion at June 30, 2019. For additional information, see Allowance for Credit Losses on page 41. Table 31 presents our commercial loans and leases portfolio and related credit quality information at June 30, 2019 and December 31, 2018.

Table 31 Commercial Credit Quality

	Outstandings		Nonperforming		Accruing Past Due 90 Days or More	
(Dollars in millions)	June 30 2019	December 31 2018	June 30 2019	December 31 2018	June 30 2019	December 31 2018
Commercial and industrial:						
U.S. commercial	$ 305,695	$ 299,277	$ 820	$ 794	$ 132	$ 197
Non-U.S. commercial	104,173	98,776	122	80	—	—
Total commercial and industrial	409,868	398,053	942	874	132	197
Commercial real estate (1)	61,659	60,845	112	156	6	4
Commercial lease financing	20,384	22,534	55	18	15	29
	491,911	481,432	1,109	1,048	153	230
U.S. small business commercial (2)	14,950	14,565	51	54	87	84
Commercial loans excluding loans accounted for under the fair value option	506,861	495,997	1,160	1,102	240	314
Loans accounted for under the fair value option (3)	7,205	3,667	—	—	—	—
Total commercial loans and leases	$ 514,066	$ 499,664	$ 1,160	$ 1,102	$ 240	$ 314

(1) Includes U.S. commercial real estate of $57.0 billion and $56.6 billion and non-U.S. commercial real estate of $4.6 billion and $4.2 billion at June 30, 2019 and December 31, 2018.
(2) Includes card-related products.
(3) Commercial loans accounted for under the fair value option include U.S. commercial of $3.9 billion and $2.5 billion and non-U.S. commercial of $3.3 billion and $1.1 billion at June 30, 2019 and December 31, 2018. For more information on the fair value option, see *Note 16 – Fair Value Option* to the Consolidated Financial Statements.

Table 32 presents net charge-offs and related ratios for our commercial loans and leases for the three and six months ended June 30, 2019 and 2018.

Table 32 Commercial Net Charge-offs and Related Ratios

	Net Charge-offs				Net Charge-off Ratios (1)			
	Three Months Ended June 30		Six Months Ended June 30		Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	2019	2018	2019	2018	2019	2018	2019	2018
Commercial and industrial:								
U.S. commercial	$ 66	$ 78	$ 149	$ 102	0.09%	0.11%	0.10%	0.07%
Non-U.S. commercial	48	19	48	23	0.19	0.08	0.10	0.05
Total commercial and industrial	114	97	197	125	0.11	0.10	0.10	0.07
Commercial real estate	4	4	9	1	0.02	0.03	0.03	—
Commercial lease financing	13	1	13	—	0.26	0.01	0.13	—
	131	102	219	126	0.11	0.09	0.09	0.05
U.S. small business commercial	65	64	133	121	1.76	1.82	1.83	1.75
Total commercial	$ 196	$ 166	$ 352	$ 247	0.16	0.14	0.14	0.10

(1) Net charge-off ratios are calculated as annualized net charge-offs divided by average outstanding loans and leases excluding loans accounted for under the fair value option.

Table 33 presents commercial reservable criticized utilized exposure by loan type. Criticized exposure corresponds to the Special Mention, Substandard and Doubtful asset categories as defined by regulatory authorities. Total commercial reservable criticized utilized exposure increased $773 million, or seven percent, during the six months ended June 30, 2019 driven by a small number of client downgrades across various industries and was not indicative of broader issues in the portfolio. At June 30, 2019 and December 31, 2018, 92 percent and 91 percent of commercial reservable criticized utilized exposure was secured.

Table 33 Commercial Reservable Criticized Utilized Exposure (1, 2)

(Dollars in millions)	June 30, 2019		December 31, 2018	
Commercial and industrial:				
U.S. commercial	$ 8,586	2.58%	$ 7,986	2.43%
Non-U.S. commercial	1,251	1.14	1,013	0.97
Total commercial and industrial	9,837	2.22	8,999	2.08
Commercial real estate	843	1.33	936	1.50
Commercial lease financing	373	1.83	366	1.62
	11,053	2.10	10,301	1.99
U.S. small business commercial	781	5.23	760	5.22
Total commercial reservable criticized utilized exposure (1)	$ 11,834	2.19	$ 11,061	2.08

(1) Total commercial reservable criticized utilized exposure includes loans and leases of $11.2 billion and $10.3 billion and commercial letters of credit of $680 million and $781 million at June 30, 2019 and December 31, 2018.
(2) Percentages are calculated as commercial reservable criticized utilized exposure divided by total commercial reservable utilized exposure for each exposure category.

Commercial and Industrial

Commercial and industrial loans include U.S. commercial and non-U.S. commercial portfolios.

U.S. Commercial

At June 30, 2019, 70 percent of the U.S. commercial loan portfolio, excluding small business, was managed in *Global Banking*, 15 percent in *Global Markets*, 13 percent in *GWIM* (generally business-purpose loans for high net worth clients) and the remainder primarily in *Consumer Banking*. U.S. commercial loans increased $6.4 billion during the six months ended June 30, 2019, primarily in *Global Banking*. Net charge-offs increased $47 million for the six months ended June 30, 2019 compared to the same period in 2018 due to a single-name utility client. Reservable criticized utilized exposure increased $600 million, or eight percent, driven by a small number of client downgrades across industries.

Non-U.S. Commercial

At June 30, 2019, 81 percent of the non-U.S. commercial loan portfolio was managed in *Global Banking* and 19 percent in *Global Markets*. Non-U.S. commercial loans increased $5.4 billion during the six months ended June 30, 2019, primarily in *Global Banking*. Nonperforming non-U.S. commercial loans increased $42 million due to a single-name client. Reservable criticized utilized exposure increased $238 million, or 23 percent, driven by a few client downgrades. For more information on the non-U.S. commercial portfolio, see Non-U.S. Portfolio on page 40.

Commercial Real Estate

Commercial real estate primarily includes commercial loans and leases secured by non-owner-occupied real estate and is dependent on the sale or lease of the real estate as the primary source of repayment. Outstanding loans increased $814 million, or one percent, during the six months ended June 30, 2019 to $61.7 billion due to new originations slightly outpacing paydowns. The portfolio remains diversified across property types and geographic regions. California represented the largest state concentration at 24 percent and 23 percent of the commercial real estate portfolio at June 30, 2019 and December 31, 2018. The commercial real estate portfolio is predominantly managed in *Global Banking* and consists of loans made primarily to public and private developers, and commercial real estate firms.

For the three and six months ended June 30, 2019, we continued to see low default rates and solid credit quality in both the residential and non-residential portfolios. We use a number of proactive risk mitigation initiatives to reduce adversely rated exposure in the commercial real estate portfolio, including transfers of deteriorating exposures to management by independent special asset officers and the pursuit of loan restructurings or asset sales to achieve the best results for our customers and the Corporation.

Nonperforming commercial real estate loans and foreclosed properties decreased $40 million, or 19 percent, during the six months ended June 30, 2019 to $172 million, due to a loan sale.

Table 34 presents outstanding commercial real estate loans by geographic region, based on the geographic location of the collateral, and by property type.

Table 34 Outstanding Commercial Real Estate Loans

(Dollars in millions)	June 30 2019	December 31 2018
By Geographic Region		
California	$ 14,911	$ 14,002
Northeast	10,858	10,895
Southwest	7,235	7,339
Southeast	5,538	5,726
Midwest	3,832	3,772
Florida	3,821	3,680
Illinois	3,084	2,989
Midsouth	2,833	2,919
Northwest	1,949	2,178
Non-U.S.	4,645	4,240
Other (1)	2,953	3,105
Total outstanding commercial real estate loans	$ 61,659	$ 60,845
By Property Type		
Non-residential		
Office	$ 17,396	$ 17,246
Shopping centers / Retail	8,497	8,798
Multi-family rental	7,865	7,762
Hotels / Motels	7,324	7,248
Industrial / Warehouse	5,723	5,379
Unsecured	3,178	2,956
Multi-use	2,254	2,848
Other	8,194	7,029
Total non-residential	60,431	59,266
Residential	1,228	1,579
Total outstanding commercial real estate loans	$ 61,659	$ 60,845

(1) Includes unsecured loans to real estate investment trusts and national home builders whose portfolios of properties span multiple geographic regions and properties in the states of Colorado, Utah, Hawaii, Wyoming and Montana.

U.S. Small Business Commercial

The U.S. small business commercial loan portfolio is comprised of small business card loans and small business loans managed in *Consumer Banking*. Credit card-related products were 53 percent and 51 percent of the U.S. small business commercial portfolio at June 30, 2019 and December 31, 2018. Of the U.S. small business commercial net charge-offs, 99 percent and 97 percent were credit card-related products for the three and six months ended June 30, 2019 compared to 92 percent and 94 percent for same periods in 2018.

Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity

Table 35 presents the nonperforming commercial loans, leases and foreclosed properties activity during the three and six months ended June 30, 2019 and 2018. Nonperforming loans do not include loans accounted for under the fair value option. During the six months ended June 30, 2019, nonperforming commercial loans and leases increased $58 million to $1.2 billion. At June 30, 2019, 90 percent of commercial nonperforming loans, leases and foreclosed properties were secured and 57 percent were contractually current. Commercial nonperforming loans were carried at 86 percent of their unpaid principal balance before consideration of the allowance for loan and lease losses as the carrying value of these loans has been reduced to the estimated collateral value less costs to sell.

Table 35 Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity (1, 2)

(Dollars in millions)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	Six Months Ended June 30 2019	Six Months Ended June 30 2018
Nonperforming loans and leases, beginning of period	**$ 1,272**	$ 1,472	**$ 1,102**	$ 1,304
Additions	**389**	244	**1,029**	680
Reductions:				
Paydowns	**(210)**	(193)	**(318)**	(362)
Sales	**(117)**	(50)	**(160)**	(74)
Returns to performing status (3)	**(23)**	(91)	**(57)**	(118)
Charge-offs	**(151)**	(112)	**(248)**	(160)
Transfers to foreclosed properties	**—**	—	**(7)**	—
Transfers to loans held-for-sale	**—**	(12)	**(181)**	(12)
Total net reductions to nonperforming loans and leases	**(112)**	(214)	**58**	(46)
Total nonperforming loans and leases, June 30	**1,160**	1,258	**1,160**	1,258
Foreclosed properties, June 30	**60**	21	**60**	21
Nonperforming commercial loans, leases and foreclosed properties, June 30	**$ 1,220**	$ 1,279	**$ 1,220**	$ 1,279
Nonperforming commercial loans and leases as a percentage of outstanding commercial loans and leases (4)	**0.23%**	0.26%		
Nonperforming commercial loans, leases and foreclosed properties as a percentage of outstanding commercial loans, leases and foreclosed properties (4)	**0.24**	0.27		

(1) Balances do not include nonperforming loans held-for-sale of $278 million and $220 million at June 30, 2019 and 2018.
(2) Includes U.S. small business commercial activity. Small business card loans are excluded as they are not classified as nonperforming.
(3) Commercial loans and leases may be returned to performing status when all principal and interest is current and full repayment of the remaining contractual principal and interest is expected, or when the loan otherwise becomes well-secured and is in the process of collection. TDRs are generally classified as performing after a sustained period of demonstrated payment performance.
(4) Outstanding commercial loans exclude loans accounted for under the fair value option.

Table 36 presents our commercial TDRs by product type and performing status. U.S. small business commercial TDRs are comprised of renegotiated small business card loans and small business loans. The renegotiated small business card loans are not classified as nonperforming as they are charged off no later than the end of the month in which the loan becomes 180 days past due. For more information on TDRs, see *Note 5 – Outstanding Loans and Leases* to the Consolidated Financial Statements.

Table 36 Commercial Troubled Debt Restructurings

(Dollars in millions)	June 30, 2019 Nonperforming	June 30, 2019 Performing	June 30, 2019 Total	December 31, 2018 Nonperforming	December 31, 2018 Performing	December 31, 2018 Total
Commercial and industrial:						
U.S. commercial	**$ 432**	**$ 895**	**$ 1,327**	$ 306	$ 1,092	$ 1,398
Non-U.S. commercial	**121**	**217**	**338**	78	162	240
Total commercial and industrial	**553**	**1,112**	**1,665**	384	1,254	1,638
Commercial real estate	**109**	**70**	**179**	114	6	120
Commercial lease financing	**22**	**33**	**55**	3	68	71
	684	**1,215**	**1,899**	501	1,328	1,829
U.S. small business commercial	**3**	**22**	**25**	3	18	21
Total commercial troubled debt restructurings	**$ 687**	**$ 1,237**	**$ 1,924**	$ 504	$ 1,346	$ 1,850

Industry Concentrations

Table 37 presents commercial committed and utilized credit exposure by industry and the total net credit default protection purchased to cover the funded and unfunded portions of certain credit exposures. Our commercial credit exposure is diversified across a broad range of industries. Total commercial committed exposure increased $22.4 billion, or two percent, during the six months ended June 30, 2019 to $1.0 trillion. The increase in commercial committed exposure was concentrated in the Finance companies, Energy and Consumer services industry sectors. Increases were partially offset by decreased exposure to the Pharmaceuticals and biotechnology, Technology hardware and equipment, and Insurance industry sectors.

For information on industry limits, see Commercial Portfolio Credit Risk Management - Industry Concentrations in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Asset managers and funds, our largest industry concentration with committed exposure of $108.0 billion, as well as Capital goods, our third largest industry concentration with committed exposure of $75.1 billion, remained relatively unchanged during the six months ended June 30, 2019. Real estate, our second largest industry concentration with committed exposure of $89.7

billion, increased $3.2 billion, or four percent, during the six months ended June 30, 2019. For more information on the commercial real estate and related portfolios, see Commercial Portfolio Credit Risk Management – Commercial Real Estate on page 37.

During the six months ended June 30, 2019, Finance companies committed exposure increased $6.2 billion. This growth occurred in Consumer finance, Diversified financials, and Thrift and mortgage finance. Energy committed exposure increased $5.1 billion as a result of growth in Oil, gas and consumable fuels. Consumer services committed exposure increased $3.9 billion led by increases in Recreation and amusement and Sports.

Table 37 Commercial Credit Exposure by Industry (1)

	Commercial Utilized		Total Commercial Committed (2)	
(Dollars in millions)	June 30 2019	December 31 2018	June 30 2019	December 31 2018
Asset managers and funds	$ 70,196	$ 71,756	$ 108,005	$ 107,888
Real estate (3)	66,907	65,328	89,729	86,514
Capital goods	39,594	39,192	75,129	75,080
Finance companies	39,106	36,662	62,904	56,659
Healthcare equipment and services	35,420	35,763	57,097	56,489
Government and public education	42,813	43,675	54,774	54,749
Materials	27,850	27,347	52,257	51,865
Retailing	26,496	25,333	47,936	47,507
Consumer services	25,754	25,702	47,216	43,298
Food, beverage and tobacco	25,379	23,586	45,580	42,745
Commercial services and supplies	22,179	22,623	37,784	39,349
Energy	14,953	13,727	37,377	32,279
Transportation	24,867	22,814	34,581	31,523
Utilities	12,141	12,035	31,254	27,623
Global commercial banks	25,932	26,583	28,886	28,627
Individuals and trusts	18,880	18,643	25,752	25,019
Media	12,066	12,132	24,826	24,502
Technology hardware and equipment	9,405	13,014	21,707	26,228
Vehicle dealers	17,674	17,603	20,848	20,446
Consumer durables and apparel	10,311	9,904	19,993	20,199
Software and services	10,403	8,809	19,660	19,172
Pharmaceuticals and biotechnology	6,135	7,430	16,521	23,634
Telecommunication services	8,913	8,686	15,318	14,166
Automobiles and components	7,795	7,131	15,065	13,893
Financial markets infrastructure (clearinghouses)	11,626	8,317	13,345	10,042
Insurance	6,148	8,674	13,231	15,807
Food and staples retailing	5,850	4,787	9,768	9,093
Religious and social organizations	3,976	3,757	5,914	5,620
Total commercial credit exposure by industry	$ 628,769	$ 621,013	$ 1,032,457	$ 1,010,016
Net credit default protection purchased on total commitments (4)			$ (3,276)	$ (2,663)

(1) Includes U.S. small business commercial exposure.

(2) Includes the notional amount of unfunded legally binding lending commitments net of amounts distributed (i.e., syndicated or participated) to other financial institutions. The distributed amounts were $10.6 billion and $10.7 billion at June 30, 2019 and December 31, 2018.

(3) Industries are viewed from a variety of perspectives to best isolate the perceived risks. For purposes of this table, the real estate industry is defined based on the primary business activity of the borrowers or counterparties using operating cash flows and primary source of repayment as key factors.

(4) Represents net notional credit protection purchased to hedge funded and unfunded exposures for which we elected the fair value option, as well as certain other credit exposures. For additional information, see Commercial Portfolio Credit Risk Management – Risk Mitigation.

Risk Mitigation

We purchase credit protection to cover the funded portion as well as the unfunded portion of certain credit exposures. To lower the cost of obtaining our desired credit protection levels, we may add credit exposure within an industry, borrower or counterparty group by selling protection.

At June 30, 2019 and December 31, 2018, net notional credit default protection purchased in our credit derivatives portfolio to hedge our funded and unfunded exposures for which we elected the fair value option, as well as certain other credit exposures, was $3.3 billion and $2.7 billion. We recorded net losses on these positions of $13 million and $77 million for the three and six months ended June 30, 2019 compared to net gains of $7 million and net losses of $10 million for the same periods in 2018 on these positions. The gains and losses on these instruments were offset by gains and losses on the related exposures. The Value-at-Risk (VaR) results for these exposures are included in the fair value option portfolio information in Table 43. For additional information, see Trading Risk Management on page 43.

Tables 38 and 39 present the maturity profiles and the credit exposure debt ratings of the net credit default protection portfolio at June 30, 2019 and December 31, 2018.

Table 38 Net Credit Default Protection by Maturity

	June 30 2019	December 31 2018
Less than or equal to one year	31%	20%
Greater than one year and less than or equal to five years	69	78
Greater than five years	—	2
Total net credit default protection	100%	100%

Table 39 Net Credit Default Protection by Credit Exposure Debt Rating

(Dollars in millions)	Net Notional (1) June 30, 2019	Percent of Total June 30, 2019	Net Notional (1) December 31, 2018	Percent of Total December 31, 2018
Ratings (2, 3)				
A	**$ (598)**	**18.3%**	$ (700)	26.3%
BBB	**(868)**	**26.5**	(501)	18.8
BB	**(600)**	**18.3**	(804)	30.2
B	**(508)**	**15.5**	(422)	15.8
CCC and below	**(87)**	**2.7**	(205)	7.7
NR (4)	**(615)**	**18.7**	(31)	1.2
Total net credit default protection	**$ (3,276)**	**100.0%**	$ (2,663)	100.0%

(1) Represents net credit default protection purchased.
(2) Ratings are refreshed on a quarterly basis.
(3) Ratings of BBB- or higher are considered to meet the definition of investment grade.
(4) NR is comprised of index positions held and any names that have not been rated.

For more information on credit derivatives and counterparty credit risk valuation adjustments, see *Note 3 – Derivatives* to the Consolidated Financial Statements herein and *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Non-U.S. Portfolio

Our non-U.S. credit and trading portfolios are subject to country risk. We define country risk as the risk of loss from unfavorable economic and political conditions, currency fluctuations, social instability and changes in government policies. A risk management framework is in place to measure, monitor and manage non-U.S. risk and exposures. In addition to the direct risk of doing business in a country, we also are exposed to indirect country risks (e.g., related to the collateral received on secured financing transactions or related to client clearing activities). These indirect exposures are managed in the normal course of business through credit, market and operational risk governance, rather than through country risk governance.

Table 40 presents our 20 largest non-U.S. country exposures at June 30, 2019. These exposures accounted for 90 percent of our total non-U.S. exposure at June 30, 2019 and 89 percent at December 31, 2018. Net country exposure for these 20 countries increased $29.3 billion in the six months ended June 30, 2019, primarily driven by increased sovereign and corporate exposure across multiple countries. For more information on the top 20 non-U.S. countries exposure, see Non-U.S. Portfolio in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Table 40 Top 20 Non-U.S. Countries Exposure

(Dollars in millions)	Funded Loans and Loan Equivalents	Unfunded Loan Commitments	Net Counterparty Exposure	Securities/ Other Investments	Country Exposure at June 30 2019	Hedges and Credit Default Protection	**Net Country Exposure at June 30 2019**	Increase (Decrease) from December 31 2018
United Kingdom	$ 30,513	$ 17,718	$ 7,816	$ 2,390	$ 58,437	$ (3,277)	**$ 55,160**	$ 306
Germany	34,833	8,737	2,457	2,132	48,159	(2,332)	**45,827**	17,170
Japan	20,546	697	1,073	1,757	24,073	(1,371)	**22,702**	2,679
Canada	7,708	7,282	1,358	3,234	19,582	(549)	**19,033**	(482)
India	7,952	822	447	5,170	14,391	(206)	**14,185**	3,073
France	7,002	6,192	1,149	2,330	16,673	(2,893)	**13,780**	1,129
China	11,467	384	778	1,041	13,670	(426)	**13,244**	(1,397)
Brazil	7,899	651	271	3,675	12,496	(233)	**12,263**	2,014
Australia	6,335	3,434	457	893	11,119	(614)	**10,505**	575
Netherlands	6,928	2,800	406	961	11,095	(1,001)	**10,094**	(1,483)
South Korea	5,911	587	674	2,775	9,947	(187)	**9,760**	590
Switzerland	5,457	3,285	392	273	9,407	(609)	**8,798**	1,034
Hong Kong	5,818	205	487	1,258	7,768	(31)	**7,737**	501
Singapore	3,593	180	274	2,319	6,366	(68)	**6,298**	781
Belgium	4,741	1,194	108	489	6,532	(246)	**6,286**	708
Mexico	4,298	1,165	166	743	6,372	(163)	**6,209**	(27)
Spain	4,185	1,922	142	713	6,962	(988)	**5,974**	1,324
United Arab Emirates	3,240	220	141	5	3,606	(59)	**3,547**	(102)
Italy	2,615	1,242	534	609	5,000	(1,473)	**3,527**	446
Ireland	1,597	778	106	158	2,639	(55)	**2,584**	423
Total top 20 non-U.S. countries exposure	$ 182,638	$ 59,495	$ 19,236	$ 32,925	$ 294,294	$ (16,781)	**$ 277,513**	$ 29,262

A number of economic conditions and geopolitical events have given rise to risk aversion in certain emerging markets. Our largest emerging market country exposure at June 30, 2019 was India, with net exposure of $14.2 billion, concentrated in multinational companies and large commercial banks.

The outlook for policy direction and therefore economic performance in the EU remains uncertain as a consequence of reduced political cohesion among EU countries. Additionally, we believe that the uncertainty in the U.K.'s ability to negotiate a favorable exit from the EU will further weigh on economic performance. For additional information, see Executive Summary – Recent Developments – U.K. Exit from the EU on page 3. Our largest EU country exposure at June 30, 2019 was the U.K. with net exposure of $55.2 billion, which represents a $306 million increase from December 31, 2018. Our second largest EU exposure was Germany with net exposure of $45.8 billion, which represents a $17.2 billion increase from December 31, 2018. The increase in Germany was primarily driven by increased sovereign exposure.

In light of ongoing trade tensions, we continue to closely monitor our exposures to tariff-sensitive regions and industries, particularly to countries that account for a large percentage of U.S. trade, such as China. Our total net country exposure to China at June 30, 2019 was $13.2 billion, concentrated in large state-owned companies, subsidiaries of multinational corporations and commercial banks.

Provision for Credit Losses

The provision for credit losses increased $30 million to $857 million, and $209 million to $1.9 billion for the three and six months ended June 30, 2019 compared to the same periods in 2018. The provision for credit losses was $30 million and $8 million lower than net charge-offs for the three and six months ended June 30, 2019, resulting in a decrease in the allowance for credit losses. This compared to a decrease of $169 million and $246 million in the allowance for credit losses for the three and six months ended June 30, 2018.

Net charge-offs for the three and six months ended June 30, 2019 were $887 million and $1.9 billion compared to $996 million and $1.9 billion for the same periods in 2018. We expect net charge-offs of approximately $1 billion for each of the remaining quarters in 2019, assuming current economic conditions continue.

The provision for credit losses for the consumer portfolio decreased $117 million to $640 million and $35 million to $1.5 billion for the three and six months ended June 30, 2019 compared to the same periods in 2018. The decrease was primarily driven by home equity loan sales, partially offset by seasoning in the U.S. credit card portfolio.

The provision for credit losses for the commercial portfolio, including unfunded lending commitments, increased $147 million to $217 million and $244 million to $400 million for the three and six months ended June 30, 2019 compared to the same periods in 2018. The increase was primarily driven by energy releases in the prior-year periods. The increase in the six months ended June 30, 2019 included a single-name utility client charge-off.

Allowance for Credit Losses

Allowance for Loan and Lease Losses

During the three and six months ended June 30, 2019, the factors that impacted the allowance for loan and lease losses included improvement in the credit quality of the consumer real estate portfolios driven by continuing improvements in the U.S. economy and strong labor markets, proactive credit risk management initiatives and the impact of high credit quality originations. Evidencing the improvements in the U.S. economy and strong labor markets are low levels of unemployment and increases in home prices. In addition to these improvements, in the consumer portfolio, nonperforming consumer loans decreased $815 million during the six months ended June 30, 2019 as loan sales, returns to performing status and paydowns continued to outpace new nonaccrual loans.

The allowance for loan and lease losses for the consumer portfolio, as presented in Table 42, was $4.7 billion at June 30, 2019, a decrease of $113 million from December 31, 2018. The decrease was primarily in the consumer real estate portfolio, partially offset by an increase in the U.S. credit card portfolio. The reduction in the allowance for the consumer real estate portfolio was due to improved home prices, lower nonperforming loans and a decrease in loan balances in our non-core portfolio. The increase in the allowance for the U.S. credit card portfolio was driven by portfolio seasoning.

The allowance for loan and lease losses for the commercial portfolio, as presented in Table 42, was $4.8 billion at June 30, 2019, an increase of $39 million from December 31, 2018. Commercial reservable criticized utilized exposure increased to $11.8 billion at June 30, 2019 from $11.1 billion (to 2.19 percent from 2.08 percent of total commercial reservable utilized exposure) at December 31, 2018, and nonperforming commercial loans increased to $1.2 billion at June 30, 2019 from $1.1 billion (to 0.23 percent from 0.22 percent of outstanding commercial loans excluding loans accounted for under the fair value option) at December 31, 2018 with the increases spread across multiple industries. See Tables 31, 32 and 33 for more details on key commercial credit statistics.

The allowance for loan and lease losses as a percentage of total loans and leases outstanding was 1.00 percent at June 30, 2019 compared to 1.02 percent at December 31, 2018. For more information on the allowance for loan and lease losses, see Allowance for Credit Losses in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

The Financial Accounting Standards Board issued a new accounting standard regarding the measurement of the allowance for credit losses that will be effective for the Corporation on January 1, 2020. Upon adoption of the standard on January 1, 2020, we expect that, based on current expectations of future economic conditions, our allowance for credit losses on loans and leases may increase by up to 20 percent from its allowance for credit losses as of June 30, 2019, as disclosed herein, with a large portion of that increase driven by the U.S. credit card portfolio. The ultimate impact will depend on the characteristics of our portfolios as well as the macroeconomic conditions and forecasts upon adoption, the ultimate validation of models and methodologies, and other management judgments. For additional information regarding this new accounting standard, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements.

Reserve for Unfunded Lending Commitments

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, unfunded bankers' acceptances and binding loan commitments, excluding commitments accounted for under the fair value option. For more information on the reserve for unfunded lending commitments, see Allowance for Credit Losses in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

The reserve for unfunded lending commitments was $806 million at June 30, 2019 compared to $797 million at December 31, 2018.

Table 41 presents a rollforward of the allowance for credit losses, which includes the allowance for loan and lease losses and the reserve for unfunded lending commitments, for the three and six months ended June 30, 2019 and 2018.

Table 41 Allowance for Credit Losses

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2019**	2018	**2019**	2018
Allowance for loan and lease losses, beginning of period	**$ 9,577**	$ 10,260	**$ 9,601**	$ 10,393
Loans and leases charged off				
Residential mortgage	**(17)**	(36)	**(41)**	(92)
Home equity	**(136)**	(101)	**(215)**	(219)
U.S. credit card	**(907)**	(865)	**(1,794)**	(1,689)
Direct/Indirect consumer	**(122)**	(123)	**(246)**	(256)
Other consumer	**(46)**	(45)	**(92)**	(94)
Total consumer charge-offs	**(1,228)**	(1,170)	**(2,388)**	(2,350)
U.S. commercial (1)	**(165)**	(168)	**(335)**	(276)
Non-U.S. commercial	**(49)**	(29)	**(49)**	(36)
Commercial real estate	**(5)**	(7)	**(10)**	(7)
Commercial lease financing	**(14)**	(4)	**(16)**	(5)
Total commercial charge-offs	**(233)**	(208)	**(410)**	(324)
Total loans and leases charged off	**(1,461)**	(1,378)	**(2,798)**	(2,674)
Recoveries of loans and leases previously charged off				
Residential mortgage	**14**	29	**54**	91
Home equity	**291**	101	**359**	186
U.S. credit card	**145**	126	**287**	249
Direct/Indirect consumer	**82**	82	**152**	156
Other consumer	**5**	2	**10**	8
Total consumer recoveries	**537**	340	**862**	690
U.S. commercial (2)	**34**	26	**53**	53
Non-U.S. commercial	**1**	10	**1**	13
Commercial real estate	**1**	3	**1**	6
Commercial lease financing	**1**	3	**3**	5
Total commercial recoveries	**37**	42	**58**	77
Total recoveries of loans and leases previously charged off	**574**	382	**920**	767
Net charge-offs	**(887)**	(996)	**(1,878)**	(1,907)
Provision for loan and lease losses	**853**	822	**1,861**	1,651
Other (3)	**(16)**	(36)	**(57)**	(87)
Allowance for loan and lease losses, June 30	**9,527**	10,050	**9,527**	10,050
Reserve for unfunded lending commitments, beginning of period	**802**	782	**797**	777
Provision for unfunded lending commitments	**4**	5	**9**	10
Reserve for unfunded lending commitments, June 30	**806**	787	**806**	787
Allowance for credit losses, June 30	**$ 10,333**	$ 10,837	**$ 10,333**	$ 10,837
Loan and allowance ratios:				
Loans and leases outstanding at June 30 (4)	**$ 955,937**	$ 929,597	**$ 955,937**	$ 929,597
Allowance for loan and lease losses as a percentage of total loans and leases outstanding at June 30 (4)	**1.00%**	1.08%	**1.00%**	1.08%
Consumer allowance for loan and lease losses as a percentage of total consumer loans and leases outstanding at June 30 (5)	**1.04**	1.15	**1.04**	1.15
Commercial allowance for loan and lease losses as a percentage of total commercial loans and leases outstanding at June 30 (6)	**0.95**	1.02	**0.95**	1.02
Average loans and leases outstanding (4)	**$ 943,588**	$ 928,620	**$ 941,311**	$ 927,465
Annualized net charge-offs as a percentage of average loans and leases outstanding (4)	**0.38%**	0.43%	**0.40%**	0.41%
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases at June 30 (4)	**228**	170	**228**	170
Ratio of the allowance for loan and lease losses at June 30 to annualized net charge-offs	**2.68**	2.52	**2.52**	2.61
Amounts included in allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at June 30 (7)	**$ 4,142**	$ 4,007	**$ 4,142**	$ 4,007
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases, excluding the allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at June 30 (4, 7)	**129%**	102%	**129%**	102%

(1) Includes U.S. small business commercial charge-offs of $81 million and $160 million for the three and six months ended June 30, 2019 compared to $75 million and $143 million for the same periods in 2018.
(2) Includes U.S. small business commercial recoveries of $16 million and $27 million for the three and six months ended June 30, 2019 compared to $11 million and $22 million for the same periods in 2018.
(3) Primarily represents write-offs of purchased credit-impaired (PCI) loans, the net impact of portfolio sales, consolidations and deconsolidations, foreign currency translation adjustments, transfers to held for sale, and certain other reclassifications.
(4) Outstanding loan and lease balances and ratios do not include loans accounted for under the fair value option of $7.9 billion and $6.2 billion at June 30, 2019 and 2018. Average loans accounted for under the fair value option were $6.9 billion and $6.0 billion for the three and six months ended June 30, 2019 compared to $6.2 billion and $5.9 billion for the same periods in 2018.
(5) Excludes consumer loans accounted for under the fair value option of $658 million and $848 million at June 30, 2019 and 2018.
(6) Excludes commercial loans accounted for under the fair value option of $7.2 billion and $5.4 billion at June 30, 2019 and 2018.
(7) Primarily includes amounts allocated to U.S. credit card and unsecured consumer lending portfolios in *Consumer Banking* and PCI loans in *All Other*.

Table 42 Allocation of the Allowance for Credit Losses by Product Type

(Dollars in millions)	Amount	Percent of Total	Percent of Loans and Leases Outstanding (1)	Amount	Percent of Total	Percent of Loans and Leases Outstanding (1)
	June 30, 2019			December 31, 2018		
Allowance for loan and lease losses						
Residential mortgage	$ 358	3.76%	0.16%	$ 422	4.40%	0.20%
Home equity	361	3.79	0.82	506	5.27	1.05
U.S. credit card	3,706	38.90	3.94	3,597	37.47	3.66
Direct/Indirect consumer	233	2.45	0.26	248	2.58	0.27
Other consumer	31	0.33	n/m	29	0.30	n/m
Total consumer	4,689	49.23	1.04	4,802	50.02	1.08
U.S. commercial (2)	2,989	31.37	0.93	3,010	31.35	0.96
Non-U.S. commercial	708	7.43	0.68	677	7.05	0.69
Commercial real estate	972	10.20	1.58	958	9.98	1.57
Commercial lease financing	169	1.77	0.83	154	1.60	0.68
Total commercial	4,838	50.77	0.95	4,799	49.98	0.97
Allowance for loan and lease losses	9,527	100.00%	1.00	9,601	100.00%	1.02
Reserve for unfunded lending commitments	806			797		
Allowance for credit losses	$ 10,333			$ 10,398		

(1) Ratios are calculated as allowance for loan and lease losses as a percentage of loans and leases outstanding excluding loans accounted for under the fair value option. Consumer loans accounted for under the fair value option include residential mortgage loans of $300 million and $336 million and home equity loans of $358 million and $346 million at June 30, 2019 and December 31, 2018. Commercial loans accounted for under the fair value option include U.S. commercial loans of $3.9 billion and $2.5 billion and non-U.S. commercial loans of $3.3 billion and $1.1 billion at June 30, 2019 and December 31, 2018.

(2) Includes allowance for loan and lease losses for U.S. small business commercial loans of $498 million and $474 million at June 30, 2019 and December 31, 2018.

n/m = not meaningful

Market Risk Management

For more information on our market risk management process, see Market Risk Management in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Trading Risk Management

To evaluate risks in our trading activities, we focus on the actual and potential volatility of revenues generated by individual positions as well as portfolios of positions. VaR is a common statistic used to measure market risk. Our primary VaR statistic is equivalent to a 99 percent confidence level, which means that for a VaR with a one-day holding period, there should not be losses in excess of VaR, on average, 99 out of 100 trading days.

Table 43 presents the total market-based portfolio VaR which is the combination of the total covered positions (and less liquid trading positions) portfolio and the fair value option portfolio. For more information on our trading risk management process and on the market risk VaR trading activities, see Trading Risk Management in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

The total market-based portfolio VaR results in Table 43 include market risk to which we are exposed from all business segments, excluding credit valuation adjustment (CVA), DVA and related hedges. The majority of this portfolio is within the *Global Markets* segment.

Table 43 presents period-end, average, high and low daily trading VaR for the three months ended June 30, 2019, March 31, 2019 and June 30, 2018, as well as average daily trading VaR for the six months ended June 30, 2019 and 2018 using a 99 percent confidence level. The amounts disclosed in Table 43 and Table 44 align to the view of covered positions used in the Basel 3 capital calculations. Foreign exchange and commodity positions are always considered covered positions, regardless of trading or banking treatment for the trade, except for structural foreign currency positions that are excluded with prior regulatory approval.

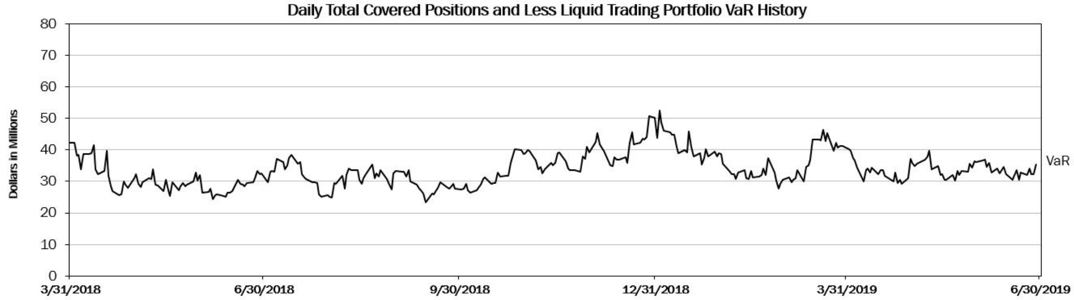
Table 43 Market Risk VaR for Trading Activities

	Three Months Ended												Six Months Ended June 30	
	June 30, 2019				March 31, 2019				June 30, 2018					
(Dollars in millions)	**Period End**	**Average**	**High (1)**	**Low (1)**	Period End	Average	High (1)	Low (1)	Period End	Average	High (1)	Low (1)	**2019 Average**	2018 Average
Foreign exchange	**$ 6**	**$ 5**	**$ 11**	**$ 4**	$ 8	$ 6	$ 10	$ 4	$ 8	$ 10	$ 15	$ 7	**$ 6**	$ 9
Interest rate	**20**	**26**	**38**	**18**	38	28	49	17	27	23	32	15	**27**	23
Credit	**26**	**22**	**27**	**16**	21	21	26	18	30	25	30	20	**22**	26
Equity	**21**	**20**	**25**	**15**	26	19	26	14	24	16	26	11	**20**	18
Commodities	**6**	**6**	**8**	**4**	5	7	13	4	7	9	14	4	**7**	8
Portfolio diversification	**(45)**	**(48)**	**—**	**—**	(61)	(48)	—	—	(65)	(55)	—	—	**(50)**	(53)
Total covered positions portfolio	**34**	**31**	**37**	**28**	37	33	47	25	31	28	38	20	**32**	31
Impact from less liquid exposures	**1**	**3**	**—**	**—**	4	4	—	—	2	2	—	—	**4**	4
Total covered positions and less liquid trading positions portfolio	**35**	**34**	**40**	**29**	41	37	53	28	33	30	42	24	**36**	35
Fair value option loans	**10**	**9**	**11**	**7**	7	8	10	7	12	13	18	8	**9**	12
Fair value option hedges	**10**	**7**	**11**	**4**	4	10	17	4	8	11	17	5	**9**	10
Fair value option portfolio diversification	**(11)**	**(9)**	**—**	**—**	(6)	(9)	—	—	(12)	(13)	—	—	**(10)**	(12)
Total fair value option portfolio	**9**	**7**	**10**	**5**	5	9	16	5	8	11	16	5	**8**	10
Portfolio diversification	**(7)**	**(5)**	**—**	**—**	(4)	(6)	—	—	(5)	(7)	—	—	**(6)**	(5)
Total market-based portfolio	**$ 37**	**$ 36**	**42**	**31**	$ 42	$ 40	56	30	$ 36	$ 34	47	28	**$ 38**	$ 40

(1) The high and low for each portfolio may have occurred on different trading days than the high and low for the components. Therefore the impact from less liquid exposures and the amount of portfolio diversification, which is the difference between the total portfolio and the sum of the individual components, is not relevant.

The graph below presents the daily covered positions and less liquid trading positions portfolio VaR for the previous five quarters, corresponding to the data in Table 43.

Daily Total Covered Positions and Less Liquid Trading Portfolio VaR History



Additional VaR statistics produced within our single VaR model are provided in Table 44 at the same level of detail as in Table 43. Evaluating VaR with additional statistics allows for an increased understanding of the risks in the portfolio as the historical market data used in the VaR calculation does not necessarily follow a predefined statistical distribution. Table 44 presents average trading VaR statistics at 99 percent and 95 percent confidence levels for the three months ended June 30, 2019, March 31, 2019 and June 30, 2018.

Table 44 Average Market Risk VaR for Trading Activities – 99 percent and 95 percent VaR Statistics

	Three Months Ended					
	June 30, 2019		March 31, 2019		June 30, 2018	
(Dollars in millions)	**99 percent**	**95 percent**	99 percent	95 percent	99 percent	95 percent
Foreign exchange	**$ 5**	**$ 3**	$ 6	$ 3	$ 10	$ 6
Interest rate	**26**	**16**	28	18	23	14
Credit	**22**	**13**	21	14	25	15
Equity	**20**	**10**	19	10	16	9
Commodities	**6**	**3**	7	4	9	5
Portfolio diversification	**(48)**	**(28)**	(48)	(30)	(55)	(34)
Total covered positions portfolio	**31**	**17**	33	19	28	15
Impact from less liquid exposures	**3**	**2**	4	2	2	2
Total covered positions and less liquid trading positions portfolio	**34**	**19**	37	21	30	17
Fair value option loans	**9**	**5**	8	4	13	7
Fair value option hedges	**7**	**5**	10	6	11	8
Fair value option portfolio diversification	**(9)**	**(6)**	(9)	(4)	(13)	(10)
Total fair value option portfolio	**7**	**4**	9	6	11	5
Portfolio diversification	**(5)**	**(3)**	(6)	(5)	(7)	(3)
Total market-based portfolio	**$ 36**	**$ 20**	$ 40	$ 22	$ 34	$ 19

Backtesting

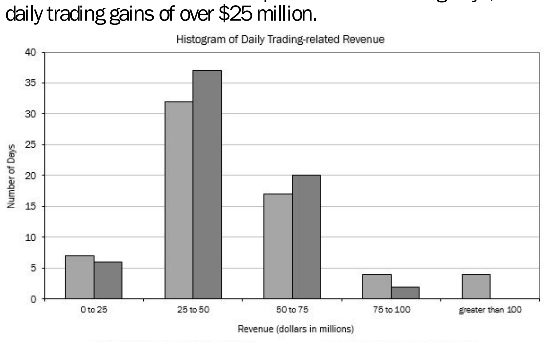
The accuracy of the VaR methodology is evaluated by backtesting, which compares the daily VaR results, utilizing a one-day holding period, against a comparable subset of trading revenue. For more information on our backtesting process, see Trading Risk Management – Backtesting in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

During the three and six months ended June 30, 2019, there were no days in which there was a backtesting excess for our total covered portfolio VaR, utilizing a one-day holding period.

Total Trading-related Revenue

Total trading-related revenue, excluding brokerage fees, and CVA, DVA and funding valuation adjustment gains (losses), represents the total amount earned from trading positions, including market-based net interest income, which are taken in a diverse range of financial instruments and markets. For additional information, see Trading Risk Management – Total Trading-related Revenue in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

The following histogram is a graphic depiction of trading volatility and illustrates the daily level of trading-related revenue for the three months ended June 30, 2019 compared to the three months ended March 31, 2019. During the three months ended June 30, 2019, positive trading-related revenue was recorded for 100 percent of the trading days, of which 91 percent were daily trading gains of over $25 million. This compares to the three months ended March 31, 2019 where positive trading-related revenue was recorded for 100 percent of the trading days, of which 89 percent were daily trading gains of over $25 million.



Trading Portfolio Stress Testing

Because the very nature of a VaR model suggests results can exceed our estimates and it is dependent on a limited historical window, we also stress test our portfolio using scenario analysis. This analysis estimates the change in the value of our trading portfolio that may result from abnormal market movements. For additional information, see Trading Risk Management – Trading Portfolio Stress Testing in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Interest Rate Risk Management for the Banking Book

The following discussion presents net interest income for banking book activities. For additional information, see Interest Rate Risk Management for the Banking Book in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

Table 45 presents the spot and 12-month forward rates used in our baseline forecasts at June 30, 2019 and December 31, 2018.

Table 45 Forward Rates

	June 30, 2019		
	Federal Funds	**Three-month LIBOR**	**10-Year Swap**
Spot rates	**2.50%**	**2.32%**	**1.96%**
12-month forward rates	**1.50**	**1.62**	**1.99**
	December 31, 2018		
Spot rates	2.50%	2.81%	2.71%
12-month forward rates	2.50	2.64	2.75

Table 46 shows the pretax impact to forecasted net interest income over the next 12 months from June 30, 2019 and December 31, 2018, resulting from instantaneous parallel and non-parallel shocks to the market-based forward curve. Periodically we evaluate the scenarios presented so that they are meaningful in the context of the current rate environment.

In the six months ended June 30, 2019, the asset sensitivity of our balance sheet increased primarily due to decreases in interest rates. We continue to be asset sensitive to a parallel move in interest rates with the majority of that impact coming from the short end of the yield curve. Additionally, higher interest rates impact the fair value of debt securities and, accordingly, for debt securities classified as AFS, may adversely affect accumulated OCI and thus capital levels under the Basel 3 capital rules. Under instantaneous upward parallel shifts, the near-term adverse impact to Basel 3 capital is reduced over time by offsetting positive impacts to net interest income. For more information on Basel 3, see Capital Management – Regulatory Capital on page 22.

Table 46 Estimated Banking Book Net Interest Income Sensitivity to Curve Changes

(Dollars in millions)	Short Rate (bps)	Long Rate (bps)	June 30 2019	December 31 2018
Parallel Shifts				
+100 bps instantaneous shift	+100	+100	**$ 4,081**	$ 2,833
-100 bps instantaneous shift	-100	-100	**(5,865)**	(4,280)
Flatteners				
Short-end instantaneous change	+100	—	**2,555**	2,158
Long-end instantaneous change	—	-100	**(2,778)**	(1,618)
Steepeners				
Short-end instantaneous change	-100	—	**(3,048)**	(2,648)
Long-end instantaneous change	—	+100	**1,539**	675

The sensitivity analysis in Table 46 assumes that we take no action in response to these rate shocks and does not assume any change in other macroeconomic variables normally correlated with changes in interest rates. As part of our ALM activities, we use securities, certain residential mortgages, and interest rate and foreign exchange derivatives in managing interest rate sensitivity.

The behavior of our deposits portfolio in the baseline forecast and in alternate interest rate scenarios is a key assumption in our projected estimates of net interest income. The sensitivity analysis in Table 46 assumes no change in deposit portfolio size or mix from the baseline forecast in alternate rate environments. In higher rate scenarios, any customer activity resulting in the replacement of low-cost or noninterest-bearing deposits with higher yielding deposits or market-based funding would reduce our benefit in those scenarios.

Interest Rate and Foreign Exchange Derivative Contracts

Interest rate and foreign exchange derivative contracts are utilized in our ALM activities and serve as an efficient tool to manage our interest rate and foreign exchange risk. We use derivatives to hedge the variability in cash flows or changes in fair value on our balance sheet due to interest rate and foreign exchange components. For more information on our hedging activities, see *Note 3 – Derivatives* to the Consolidated Financial Statements. For more information on interest rate contracts and risk management, see Interest Rate Risk Management for the Banking Book in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

We use interest rate derivative instruments to hedge the variability in the cash flows of our assets and liabilities and other forecasted transactions (collectively referred to as cash flow hedges). The net losses on both open and terminated cash flow hedge derivative instruments recorded in accumulated OCI were$604 million and $1.3 billion, on a pretax basis, at June 30, 2019 and December 31, 2018. These net losses are expected to be reclassified into earnings in the same period as the hedged cash flows affect earnings and will decrease income or increase expense on the respective hedged cash flows. Assuming no change in open cash flow derivative hedge positions and no changes in prices or interest rates beyond what is implied in forward yield curves at June 30, 2019, the pretax net losses are expected to be reclassified into earnings as follows: 23 percent within the next year, 42 percent in years two through five and 19 percent in years six through ten, with the remaining 16 percent thereafter. For more information on derivatives designated as cash flow hedges, see *Note 3 – Derivatives* to the Consolidated Financial Statements.

We hedge our net investment in non-U.S. operations determined to have functional currencies other than the U.S. dollar using forward foreign exchange contracts that typically settle in less than 180 days, cross-currency basis swaps and foreign exchange options. We recorded net after-tax losses on derivatives in accumulated OCI associated with net investment hedges which were offset by gains on our net investments in consolidated non-U.S. entities at June 30, 2019.

Table 47 presents derivatives utilized in our ALM activities and shows the notional amount, fair value, weighted-average receive-fixed and pay-fixed rates, expected maturity and average estimated durations of our open ALM derivatives at June 30, 2019 and December 31, 2018. These amounts do not include derivative hedges on our MSRs. During the six months ended June 30, 2019, the fair value of receive-fixed interest rate swaps increased while pay-fixed interest rates swaps decreased, driven by lower swap rates.

Table 47 Asset and Liability Management Interest Rate and Foreign Exchange Contracts

	June 30, 2019								
		Expected Maturity							
(Dollars in millions, average estimated duration in years)	**Fair Value**	**Total**	**Remainder of 2019**	**2020**	**2021**	**2022**	**2023**	**Thereafter**	**Average Estimated Duration**
Receive-fixed interest rate swaps (1)	**$ 12,475**								**6.66**
Notional amount		**$ 210,457**	**$ 4,738**	**$ 16,347**	**$ 14,640**	**$ 20,366**	**$ 36,356**	**$ 118,010**	
Weighted-average fixed-rate		**2.75%**	**1.74%**	**2.68%**	**3.17%**	**2.56%**	**2.36%**	**2.90%**	
Pay-fixed interest rate swaps (1)	**(3,154)**								**7.14**
Notional amount		**$ 68,605**	**$ 1,210**	**$ 4,344**	**$ 1,616**	**$ —**	**$ 13,993**	**$ 47,442**	
Weighted-average fixed-rate		**2.51%**	**2.07%**	**2.16%**	**2.22%**	**—%**	**2.52%**	**2.55%**	
Same-currency basis swaps (2)	**35**								
Notional amount		**$ 141,274**	**$ 6,112**	**$ 17,194**	**$ 18,139**	**$ 4,296**	**$ 2,017**	**$ 93,516**	
Foreign exchange basis swaps (1, 3, 4)	**(1,561)**								
Notional amount		**120,054**	**13,053**	**23,891**	**24,475**	**12,709**	**6,952**	**38,974**	
Option products	**4**								
Notional amount		**651**	**636**	**—**	**—**	**—**	**15**	**—**	
Foreign exchange contracts (1, 4, 5)	**149**								
Notional amount (6)		**(99,747)**	**(122,485)**	**(1,063)**	**4,008**	**2,718**	**2,362**	**14,713**	
Net ALM contracts	**$ 7,948**								

	December 31, 2018								
		Expected Maturity							
(Dollars in millions, average estimated duration in years)	Fair Value	Total	2019	2020	2021	2022	2023	Thereafter	Average Estimated Duration
Receive-fixed interest rate swaps (1)	$ 2,128								5.17
Notional amount		$ 198,914	$ 27,176	$ 16,347	$ 14,640	$ 19,866	$ 36,215	$ 84,670	
Weighted-average fixed-rate		2.66%	1.87%	2.68%	3.17%	2.56%	2.37%	2.97%	
Pay-fixed interest rate swaps (1)	295								6.30
Notional amount		$ 49,275	$ 1,210	$ 4,344	$ 1,616	$ —	$ 10,801	$ 31,304	
Weighted-average fixed-rate		2.50%	2.07%	2.16%	2.22%	—%	2.59%	2.55%	
Same-currency basis swaps (2)	21								
Notional amount		$ 101,203	$ 7,628	$ 15,097	$ 15,493	$ 2,586	$ 2,017	$ 58,382	
Foreign exchange basis swaps (1, 3, 4)	(1,716)								
Notional amount		106,742	13,946	21,448	19,241	10,239	6,260	35,608	
Option products	2								
Notional amount		587	572	—	—	—	15	—	
Foreign exchange contracts (1, 4, 5)	82								
Notional amount (6)		(8,447)	(27,823)	13	4,196	2,741	2,448	9,978	
Net ALM contracts	$ 812								

(1) Does not include basis adjustments on either fixed-rate debt issued by the Corporation or AFS debt securities, which are hedged using derivatives designated as fair value hedging instruments, that substantially offset the fair values of these derivatives.
(2) At June 30, 2019 and December 31, 2018, the notional amount of same-currency basis swaps included $141.3 billion and $101.2 billion in both foreign currency and U.S. dollar-denominated basis swaps in which both sides of the swap are in the same currency.
(3) Foreign exchange basis swaps consisted of cross-currency variable interest rate swaps used separately or in conjunction with receive-fixed interest rate swaps.
(4) Does not include foreign currency translation adjustments on certain non-U.S. debt issued by the Corporation that substantially offset the fair values of these derivatives.
(5) The notional amount of foreign exchange contracts of $(99.7) billion at June 30, 2019 was comprised of $28.6 billion in foreign currency-denominated and cross-currency receive-fixed swaps, $(127.0) billion in net foreign currency forward rate contracts, $(2.1) billion in foreign currency-denominated pay-fixed swaps and $768 million in net foreign currency futures contracts. Foreign exchange contracts of $(8.4) billion at December 31, 2018 were comprised of $25.2 billion in foreign currency-denominated and cross-currency receive-fixed swaps, $(32.7) billion in net foreign currency forward rate contracts, $(1.8) billion in foreign currency-denominated pay-fixed swaps and $814 million in foreign currency futures contracts.
(6) Reflects the net of long and short positions. Amounts shown as negative reflect a net short position.

Mortgage Banking Risk Management

We originate, fund and service mortgage loans, which subject us to credit, liquidity and interest rate risks, among others. We determine whether loans will be held for investment or held for sale at the time of commitment and manage credit and liquidity risks by selling or securitizing a portion of the loans we originate.

Changes in interest rates impact the value of interest rate lock commitments (IRLCs) and the related residential mortgage loans held for sale (LHFS), as well as the value of the MSRs. Because the interest rate risks of these hedged items offset, we combine them into one overall hedged item with one combined economic hedge portfolio consisting of derivative contracts and securities. For more information on IRLCs and the related residential mortgage LHFS, see Mortgage Banking Risk Management in the MD&A of the Corporation's 2018 Annual Report on Form 10-K.

During the three and six months ended June 30, 2019 and 2018, we recorded gains of $78 million and $139 million related to the change in fair value of the MSRs, IRLCs and LHFS, net of gains and losses on the hedge portfolio, compared to gains of $60 million and $129 million for the same periods in 2018. For more information on MSRs, see *Note 15 – Fair Value Measurements* to the Consolidated Financial Statements.

Complex Accounting Estimates

Our significant accounting principles are essential in understanding the MD&A. Many of our significant accounting principles require complex judgments to estimate the values of assets and liabilities. We have procedures and processes in place to facilitate making these judgments. For additional information, see Complex Accounting Estimates in the MD&A of the Corporation's 2018 Annual Report on Form 10-K and *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Goodwill and Intangible Assets

We completed our annual goodwill impairment test as of June 30, 2019 for all of our reporting units that had goodwill. Based on the results of the annual goodwill impairment test, we determined there was no impairment. For more information, see *Note 8 – Goodwill and Intangible Assets* to the Consolidated Financial Statements.

The nature of and accounting for goodwill and intangible assets are discussed in the Corporation's 2018 Annual Report on Form 10-K in *Note 1 – Summary of Significant Accounting Principles* and *Note 8 – Goodwill and Intangible Assets* to the Consolidated Financial Statements and in Complex Accounting Estimates of the MD&A.

Non-GAAP Reconciliations

Table 48 provides reconciliations of certain non-GAAP financial measures to the most closely related GAAP financial measures.

Table 48 Period-end and Average Supplemental Financial Data and Reconciliations to GAAP Financial Measures (1)

	Period-end		Average			
			Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**June 30 2019**	December 31 2018	**2019**	2018	**2019**	2018
Shareholders' equity	**$ 271,408**	$ 265,325	**$ 267,975**	$ 265,181	**$ 267,101**	$ 265,330
Goodwill	**(68,951)**	(68,951)	**(68,951)**	(68,951)	**(68,951)**	(68,951)
Intangible assets (excluding MSRs)	**(1,718)**	(1,774)	**(1,736)**	(2,126)	**(1,750)**	(2,193)
Related deferred tax liabilities	**756**	858	**770**	916	**805**	927
Tangible shareholders' equity	**$ 201,495**	$ 195,458	**$ 198,058**	$ 195,020	**$ 197,205**	$ 195,113
Preferred stock	**(24,689)**	(22,326)	**(22,537)**	(23,868)	**(22,433)**	(23,321)
Tangible common shareholders' equity	**$ 176,806**	$ 173,132	**$ 175,521**	$ 171,152	**$ 174,772**	$ 171,792
Total assets	**$ 2,395,892**	$ 2,354,507				
Goodwill	**(68,951)**	(68,951)				
Intangible assets (excluding MSRs)	**(1,718)**	(1,774)				
Related deferred tax liabilities	**756**	858				
Tangible assets	**$ 2,325,979**	$ 2,284,640				

(1) Presents reconciliations of non-GAAP financial measures to the most closely related GAAP financial measures. For more information on non-GAAP financial measures and ratios we use in assessing the results of the Corporation, see Supplemental Financial Data on page 6.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

See Market Risk Management on page 43 in the MD&A and the sections referenced therein for Quantitative and Qualitative Disclosures about Market Risk.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

As of the end of the period covered by this report, the Corporation's management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness and design of the Corporation's disclosure controls and procedures (as that term is defined in Rule 13a-15(e) of the Exchange Act). Based upon that evaluation, the Corporation's Chief Executive Officer and Chief Financial Officer concluded that the Corporation's disclosure controls and procedures were effective, as of the end of the period covered by this report.

Changes in Internal Control Over Financial Reporting

There have been no changes in the Corporation's internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) during the three months ended June 30, 2019, that have materially affected, or are reasonably likely to materially affect, the Corporation's internal control over financial reporting.

Consolidated Statement of Income

(In millions, except per share information)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	Six Months Ended June 30 2019	Six Months Ended June 30 2018
Net interest income				
Interest income	**$ 18,224**	$ 16,369	**$ 36,394**	$ 31,968
Interest expense	**6,035**	4,541	**11,830**	8,371
Net interest income	**12,189**	11,828	**24,564**	23,597
Noninterest income				
Fees and commissions	**8,190**	8,317	**16,028**	16,657
Trading account income	**2,345**	2,151	**4,683**	4,704
Other income	**360**	253	**813**	661
Total noninterest income	**10,895**	10,721	**21,524**	22,022
Total revenue, net of interest expense	**23,084**	22,549	**46,088**	45,619
Provision for credit losses	**857**	827	**1,870**	1,661
Noninterest expense				
Compensation and benefits	**7,972**	7,944	**16,221**	16,424
Occupancy and equipment	**1,640**	1,591	**3,245**	3,198
Information processing and communications	**1,157**	1,121	**2,321**	2,286
Product delivery and transaction related	**709**	706	**1,371**	1,462
Marketing	**528**	395	**970**	740
Professional fees	**409**	399	**769**	780
Other general operating	**853**	1,068	**1,595**	2,176
Total noninterest expense	**13,268**	13,224	**26,492**	27,066
Income before income taxes	**8,959**	8,498	**17,726**	16,892
Income tax expense	**1,611**	1,714	**3,067**	3,190
Net income	**$ 7,348**	$ 6,784	**$ 14,659**	$ 13,702
Preferred stock dividends	**239**	318	**681**	746
Net income applicable to common shareholders	**$ 7,109**	$ 6,466	**$ 13,978**	$ 12,956
Per common share information				
Earnings	**$ 0.75**	$ 0.64	**$ 1.45**	$ 1.26
Diluted earnings	**0.74**	0.63	**1.45**	1.25
Average common shares issued and outstanding	**9,523.2**	10,181.7	**9,624.0**	10,251.7
Average diluted common shares issued and outstanding	**9,559.6**	10,309.4	**9,672.4**	10,389.9

Consolidated Statement of Comprehensive Income

(Dollars in millions)	Three Months Ended June 30 2019	Three Months Ended June 30 2018	Six Months Ended June 30 2019	Six Months Ended June 30 2018
Net income	**$ 7,348**	$ 6,784	**$ 14,659**	$ 13,702
Other comprehensive income (loss), net-of-tax:				
Net change in debt securities	**2,384**	(1,031)	**4,693**	(4,994)
Net change in debit valuation adjustments	**(138)**	179	**(501)**	452
Net change in derivatives	**304**	(92)	**533**	(367)
Employee benefit plan adjustments	**29**	30	**57**	60
Net change in foreign currency translation adjustments	**(14)**	(141)	**(48)**	(189)
Other comprehensive income (loss)	**2,565**	(1,055)	**4,734**	(5,038)
Comprehensive income	**$ 9,913**	$ 5,729	**$ 19,393**	$ 8,664

See accompanying Notes to Consolidated Financial Statements.

Consolidated Balance Sheet

(Dollars in millions)	June 30 2019	December 31 2018
Assets		
Cash and due from banks	$ **29,409**	$ 29,063
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	**141,985**	148,341
Cash and cash equivalents	**171,394**	177,404
Time deposits placed and other short-term investments	**8,692**	7,494
Federal funds sold and securities borrowed or purchased under agreements to resell (includes **$54,257** and $56,399 measured at fair value)	**248,077**	261,131
Trading account assets (includes **$122,803** and $119,363 pledged as collateral)	**251,987**	214,348
Derivative assets	**44,912**	43,725
Debt securities:		
Carried at fair value	**246,094**	238,101
Held-to-maturity, at cost (fair value – **$202,484** and $200,435)	**199,981**	203,652
Total debt securities	**446,075**	441,753
Loans and leases (includes **$7,863** and $4,349 measured at fair value)	**963,800**	946,895
Allowance for loan and lease losses	**(9,527)**	(9,601)
Loans and leases, net of allowance	**954,273**	937,294
Premises and equipment, net	**10,426**	9,906
Goodwill	**68,951**	68,951
Loans held-for-sale (includes **$2,388** and $2,942 measured at fair value)	**5,416**	10,367
Customer and other receivables	**53,329**	65,814
Other assets (includes **$22,074** and $19,739 measured at fair value)	**132,360**	116,320
Total assets	$ **2,395,892**	$ 2,354,507
Liabilities		
Deposits in U.S. offices:		
Noninterest-bearing	$ **393,567**	$ 412,587
Interest-bearing (includes **$604** and $492 measured at fair value)	**900,434**	891,636
Deposits in non-U.S. offices:		
Noninterest-bearing	**12,864**	14,060
Interest-bearing	**68,228**	63,193
Total deposits	**1,375,093**	1,381,476
Federal funds purchased and securities loaned or sold under agreements to repurchase (includes **$19,866** and $28,875 measured at fair value)	**194,948**	186,988
Trading account liabilities	**82,150**	68,220
Derivative liabilities	**38,380**	37,891
Short-term borrowings (includes **$2,403** and $1,648 measured at fair value)	**27,244**	20,189
Accrued expenses and other liabilities (includes **$22,811** and $20,075 measured at fair value and **$806** and $797 of reserve for unfunded lending commitments)	**168,658**	165,026
Long-term debt (includes **$35,198** and $27,689 measured at fair value)	**238,011**	229,392
Total liabilities	**2,124,484**	2,089,182
Commitments and contingencies *(Note 7 – Securitizations and Other Variable Interest Entities* and *Note 11 – Commitments and Contingencies)*		
Shareholders' equity		
Preferred stock, $0.01 par value; authorized – **100,000,000** shares; issued and outstanding – **3,939,040,** and 3,843,140 shares	**24,689**	22,326
Common stock and additional paid-in capital, $0.01 par value; authorized – **12,800,000,000** shares; issued and outstanding – **9,342,601,750** and 9,669,286,370 shares	**106,619**	118,896
Retained earnings	**147,577**	136,314
Accumulated other comprehensive income (loss)	**(7,477)**	(12,211)
Total shareholders' equity	**271,408**	265,325
Total liabilities and shareholders' equity	$ **2,395,892**	$ 2,354,507

Assets of consolidated variable interest entities included in total assets above (isolated to settle the liabilities of the variable interest entities)		
Trading account assets	$ **5,469**	$ 5,798
Loans and leases	**40,676**	43,850
Allowance for loan and lease losses	**(882)**	(912)
Loans and leases, net of allowance	**39,794**	42,938
All other assets	**387**	337

Total assets of consolidated variable interest entities	**$**	**45,650**	$	49,073
Liabilities of consolidated variable interest entities included in total liabilities above				
Short-term borrowings	**$**	**1,845**	$	742
Long-term debt (includes **$7,392** and $10,943 of non-recourse debt)		**7,393**		10,944
All other liabilities (includes **$25** and $27 of non-recourse liabilities)		**27**		30
Total liabilities of consolidated variable interest entities	**$**	**9,265**	$	11,716

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statement of Changes in Shareholders' Equity

(In millions)	Preferred Stock	Common Stock and Additional Paid-in Capital		Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
		Shares	Amount			
Balance, March 31, 2019	**$ 22,326**	**9,568.4**	**$ 112,838**	**$ 141,888**	**$ (10,042)**	**$ 267,010**
Net income				**7,348**		**7,348**
Net change in debt securities					**2,384**	**2,384**
Net change in debit valuation adjustments					**(138)**	**(138)**
Net change in derivatives					**304**	**304**
Employee benefit plan adjustments					**29**	**29**
Net change in foreign currency translation adjustments					**(14)**	**(14)**
Dividends declared:						
Common				**(1,420)**		**(1,420)**
Preferred				**(239)**		**(239)**
Issuance of preferred stock	**2,363**					**2,363**
Common stock issued under employee plans, net, and other			**288**			**288**
Common stock repurchased		**(225.8)**	**(6,507)**			**(6,507)**
Balance, June 30, 2019	**$ 24,689**	**9,342.6**	**$ 106,619**	**$ 147,577**	**$ (7,477)**	**$ 271,408**
Balance, December 31, 2018	**$ 22,326**	**9,669.3**	**$ 118,896**	**$ 136,314**	**$ (12,211)**	**$ 265,325**
Cumulative adjustment for adoption of lease accounting standard				**165**		**165**
Net income				**14,659**		**14,659**
Net change in debt securities					**4,693**	**4,693**
Net change in debit valuation adjustments					**(501)**	**(501)**
Net change in derivatives					**533**	**533**
Employee benefit plan adjustments					**57**	**57**
Net change in foreign currency translation adjustments					**(48)**	**(48)**
Dividends declared:						
Common				**(2,876)**		**(2,876)**
Preferred				**(681)**		**(681)**
Issuance of preferred stock	**2,363**					**2,363**
Common stock issued under employee plans, net, and other		**119.1**	**493**	**(4)**		**489**
Common stock repurchased		**(445.8)**	**(12,770)**			**(12,770)**
Balance, June 30, 2019	**$ 24,689**	**9,342.6**	**$ 106,619**	**$ 147,577**	**$ (7,477)**	**$ 271,408**
Balance, Balance, March 31, 2018	$ 24,672	10,175.9	$ 133,532	$ 120,298	$ (12,278)	$ 266,224
Net income				6,784		6,784
Net change in debt securities					(1,031)	(1,031)
Net change in debit valuation adjustments					179	179
Net change in derivatives					(92)	(92)
Employee benefit plan adjustments					30	30
Net change in foreign currency translation adjustments					(141)	(141)
Dividends declared:						
Common				(1,218)		(1,218)
Preferred				(318)		(318)
Issuance of preferred stock	1,322					1,322
Redemption of preferred stock	(2,813)					(2,813)
Common stock issued under employee plans, net, and other		2.5	255			255
Common stock repurchased		(165.7)	(4,965)			(4,965)
Balance, June 30, 2018	$ 23,181	10,012.7	$ 128,822	$ 125,546	$ (13,333)	$ 264,216
Balance, December 31, 2017	$ 22,323	10,287.3	$ 138,089	$ 113,816	$ (7,082)	$ 267,146
Cumulative adjustment for adoption of hedge accounting standard				(32)	57	25
Adoption of accounting standard related to certain tax effects stranded in accumulated other comprehensive income (loss)				1,270	(1,270)	—
Net income				13,702		13,702
Net change in debt securities					(4,994)	(4,994)
Net change in debit valuation adjustments					452	452
Net change in derivatives					(367)	(367)
Employee benefit plan adjustments					60	60
Net change in foreign currency translation adjustments					(189)	(189)

Dividends declared:						
Common				(2,455)		(2,455)
Preferred				(746)		(746)
Issuance of preferred stock	3,671					3,671
Redemption of preferred stock	(2,813)					(2,813)
Common stock issued under employee plans, net, and other		43.7	556	(9)		547
Common stock repurchased		(318.3)	(9,823)			(9,823)
Balance, June 30, 2018	$ 23,181	10,012.7	$ 128,822	$ 125,546	$ (13,333)	$ 264,216

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statement of Cash Flows

(Dollars in millions)	Six Months Ended June 30 2019	2018
Operating activities		
Net income	$ 14,659	$ 13,702
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	1,870	1,661
Gains on sales of debt securities	(115)	(3)
Depreciation and premises improvements amortization	797	755
Amortization of intangibles	55	269
Net amortization of premium/discount on debt securities	810	909
Deferred income taxes	1,494	1,782
Stock-based compensation	985	877
Loans held-for-sale:		
Originations and purchases	(9,190)	(11,709)
Proceeds from sales and paydowns of loans originally classified as held for sale and instruments from related securitization activities	14,082	17,246
Net change in:		
Trading and derivative instruments	(17,734)	(1,295)
Other assets	2,405	9,381
Accrued expenses and other liabilities	(5,863)	399
Other operating activities, net	4,121	(138)
Net cash provided by operating activities	8,376	33,836
Investing activities		
Net change in:		
Time deposits placed and other short-term investments	(1,198)	2,941
Federal funds sold and securities borrowed or purchased under agreements to resell	13,054	(13,739)
Debt securities carried at fair value:		
Proceeds from sales	43,488	1,194
Proceeds from paydowns and maturities	38,186	37,774
Purchases	(83,704)	(31,762)
Held-to-maturity debt securities:		
Proceeds from paydowns and maturities	12,921	7,820
Purchases	(9,463)	(22,110)
Loans and leases:		
Proceeds from sales of loans originally classified as held for investment and instruments from related securitization activities	5,844	7,172
Purchases	(2,364)	(2,656)
Other changes in loans and leases, net	(22,655)	(5,755)
Other investing activities, net	(1,327)	(1,748)
Net cash used in investing activities	(7,218)	(20,869)
Financing activities		
Net change in:		
Deposits	(6,383)	146
Federal funds purchased and securities loaned or sold under agreements to repurchase	7,960	996
Short-term borrowings	7,055	7,956
Long-term debt:		
Proceeds from issuance	32,493	42,426
Retirement	(33,848)	(37,264)
Preferred stock:		
Proceeds from issuance	2,363	3,671
Redemption	—	(2,813)
Common stock repurchased	(12,770)	(9,823)
Cash dividends paid	(3,622)	(3,245)
Other financing activities, net	(833)	(533)
Net cash provided by (used in) financing activities	(7,585)	1,517
Effect of exchange rate changes on cash and cash equivalents	417	(719)

Net increase (decrease) in cash and cash equivalents	**(6,010)**	13,765
Cash and cash equivalents at January 1	**177,404**	157,434
Cash and cash equivalents at June 30	**$ 171,394**	$ 171,199

See accompanying Notes to Consolidated Financial Statements.

NOTE 1 Summary of Significant Accounting Principles

Bank of America Corporation, a bank holding company and a financial holding company, provides a diverse range of financial services and products throughout the U.S. and in certain international markets. The term "the Corporation" as used herein may refer to Bank of America Corporation, individually, Bank of America Corporation and its subsidiaries, or certain of Bank of America Corporation's subsidiaries or affiliates.

Principles of Consolidation and Basis of Presentation

The Consolidated Financial Statements include the accounts of the Corporation and its majority-owned subsidiaries and those variable interest entities (VIEs) where the Corporation is the primary beneficiary. Intercompany accounts and transactions have been eliminated. Results of operations of acquired companies are included from the dates of acquisition, and for VIEs, from the dates that the Corporation became the primary beneficiary. Assets held in an agency or fiduciary capacity are not included in the Consolidated Financial Statements. The Corporation accounts for investments in companies for which it owns a voting interest and for which it has the ability to exercise significant influence over operating and financing decisions using the equity method of accounting. These investments are included in other assets. Equity method investments are subject to impairment testing, and the Corporation's proportionate share of income or loss is included in other income.

The preparation of the Consolidated Financial Statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect reported amounts and disclosures. Realized results could materially differ from those estimates and assumptions.

These unaudited Consolidated Financial Statements should be read in conjunction with the audited Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

The nature of the Corporation's business is such that the results of any interim period are not necessarily indicative of results for a full year. In the opinion of management, all adjustments, which consist of normal recurring adjustments necessary for a fair statement of the interim period results, have been made. The Corporation evaluates subsequent events through the date of filing with the Securities and Exchange Commission. Certain prior-period amounts have been reclassified to conform to current period presentation.

Accounting Standards Issued and Not Yet Adopted

Accounting for Financial Instruments – Credit Losses

The Financial Accounting Standards Board issued a new accounting standard that will be effective for the Corporation on January 1, 2020. This standard replaces the existing measurement of the allowance for credit losses that is based on management's best estimate of probable incurred credit losses inherent in the Corporation's lending activities with management's best estimate of lifetime expected credit losses inherent in the Corporation's relevant financial assets. The lifetime expected credit losses will be determined using macroeconomic forecast assumptions and management judgments applicable to and through the expected life of the portfolios. The standard will also expand credit quality disclosures. While the standard changes the measurement of the allowance for credit losses, it does not change the Corporation's credit risk of its lending portfolios or the ultimate losses in those portfolios.

Key implementation efforts have included model development and validation, data acquisition for model estimation and new disclosures, and the establishment of formal policies supporting all aspects of the standard. The Corporation has initiated running a parallel process encompassing the functionality of the models, internal controls over the estimation process and all other governance activities.

Upon adoption of the standard on January 1, 2020, the Corporation expects that, based on current expectations of future economic conditions, its allowance for credit losses on loans and leases may increase by up to 20 percent from its allowance for credit losses as of June 30, 2019, as disclosed herein, with a large portion of that increase driven by the U.S. credit card portfolio. The ultimate impact will depend on the characteristics of the Corporation's portfolios as well as the macroeconomic conditions and forecasts upon adoption, the ultimate validation of models and methodologies, and other management judgments.

New Accounting Standards

Lease Accounting

On January 1, 2019, the Corporation adopted the new accounting standards that require lessees to recognize operating leases on the balance sheet as right-of-use assets and lease liabilities based on the value of the discounted future lease payments. Lessor accounting is largely unchanged. Expanded disclosures about the nature and terms of lease agreements are required prospectively and are included in *Note 9 – Leases*. The Corporation elected to retain prior determinations of whether an existing contract contains a lease and how the lease should be classified. The Corporation elected to recognize leases existing on January 1, 2019 through a cumulative-effect adjustment which increased retained earnings by $165 million, with no adjustment to prior periods presented. Upon adoption, the Corporation also recognized right-of-use assets and lease liabilities of $9.7 billion. Adoption of the standards did not have a significant effect on the Corporation's regulatory capital measures.

Lease Accounting Principles

Lessor Arrangements

The Corporation provides equipment financing to its customers through a variety of lessor arrangements. Direct financing leases and sales-type leases are carried at the aggregate of lease payments receivable plus the estimated residual value of the leased property less unearned income, which is accreted to interest income over the lease terms using methods that approximate the interest method. Operating lease income is recognized on a straight-line basis. Leases generally do not contain non-lease components.

Lessee Arrangements

Substantially all of the Corporation's lessee arrangements are operating leases. Under these arrangements, the Corporation records right-of-use assets and lease liabilities at lease commencement. Right-of-use assets are reported in other assets on the Consolidated Balance Sheet, and the related lease liabilities are reported in accrued expenses and other liabilities. All leases are recorded on the Consolidated Balance Sheet except leases with an initial term less than 12 months for which the Corporation made the short-term lease election. Lease expense is recognized on a straight-line basis over the lease term and is recorded in occupancy and equipment expense in the Consolidated Statement of Income.

The Corporation made an accounting policy election not to separate lease and non-lease components of a contract that is or contains a lease for its real estate and equipment leases. As such, lease payments represent payments on both lease and non-lease components. At lease commencement, lease liabilities are recognized based on the present value of the remaining lease payments and discounted using the Corporation's incremental borrowing rate. Right-of-use assets initially equal the lease liability, adjusted for any lease payments made prior to lease commencement and for any lease incentives.

NOTE 2 Net Interest Income and Noninterest Income

The table below presents the Corporation's net interest income and noninterest income disaggregated by revenue source for the three and six months ended June 30, 2019 and 2018. For more information, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K. For a disaggregation of noninterest income by business segment and *All Other*, see *Note 18 – Business Segment Information*.

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2019**	2018	**2019**	2018
Net interest income				
Interest income				
Loans and leases	**$ 10,942**	$ 10,071	**$ 21,827**	$ 19,694
Debt securities	**3,017**	2,856	**6,136**	5,660
Federal funds sold and securities borrowed or purchased under agreements to resell	**1,309**	709	**2,504**	1,331
Trading account assets	**1,321**	1,198	**2,643**	2,334
Other interest income	**1,635**	1,535	**3,284**	2,949
Total interest income	**18,224**	16,369	**36,394**	31,968
Interest expense				
Deposits	**1,965**	943	**3,760**	1,703
Short-term borrowings	**1,997**	1,462	**3,849**	2,597
Trading account liabilities	**319**	348	**664**	705
Long-term debt	**1,754**	1,788	**3,557**	3,366
Total interest expense	**6,035**	4,541	**11,830**	8,371
Net interest income	**$ 12,189**	$ 11,828	**$ 24,564**	$ 23,597
Noninterest income				
Fees and commissions				
Card income				
Interchange fees (1)	**$ 968**	$ 1,011	**$ 1,864**	$ 1,925
Other card income	**478**	472	**957**	960
Total card income	**1,446**	1,483	**2,821**	2,885
Service charges				
Deposit-related fees	**1,638**	1,680	**3,218**	3,326
Lending-related fees	**265**	274	**524**	549
Total service charges	**1,903**	1,954	**3,742**	3,875
Investment and brokerage services				
Asset management fees	**2,554**	2,513	**4,994**	5,077
Brokerage fees	**916**	945	**1,836**	2,045
Total investment and brokerage services	**3,470**	3,458	**6,830**	7,122
Investment banking fees				
Underwriting income	**792**	719	**1,458**	1,460
Syndication fees	**291**	400	**546**	716
Financial advisory services	**288**	303	**631**	599
Total investment banking fees	**1,371**	1,422	**2,635**	2,775
Total fees and commissions	**8,190**	8,317	**16,028**	16,657
Trading account income	**2,345**	2,151	**4,683**	4,704
Other income	**360**	253	**813**	661
Total noninterest income	**$ 10,895**	$ 10,721	**$ 21,524**	$ 22,022

(1) Gross interchange fees were $2.5 billion and $2.4 billion for the three months ended June 30, 2019 and 2018, and are presented net of $1.6 billion and $1.4 billion of expenses for rewards and partner payments. For the six months ended June 30, 2019 and 2018, gross interchange fees were $4.8 billion and $4.6 billion and are presented net of $3.0 billion and $2.7 billion of expenses for rewards and partner payments.

NOTE 3 Derivatives

Derivative Balances

Derivatives are entered into on behalf of customers, for trading or to support risk management activities. Derivatives used in risk management activities include derivatives that may or may not be designated in qualifying hedge accounting relationships. Derivatives that are not designated in qualifying hedge accounting relationships are referred to as other risk management derivatives. For more information on the Corporation's derivatives and hedging activities, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K. The following tables present derivative instruments included on the Consolidated Balance Sheet in derivative assets and liabilities at June 30, 2019 and December 31, 2018. Balances are presented on a gross basis, prior to the application of counterparty and cash collateral netting. Total derivative assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements and have been reduced by cash collateral received or paid.

		June 30, 2019					
		Gross Derivative Assets			Gross Derivative Liabilities		
(Dollars in billions)	Contract/ Notional (1)	Trading and Other Risk Management Derivatives	Qualifying Accounting Hedges	Total	Trading and Other Risk Management Derivatives	Qualifying Accounting Hedges	Total
Interest rate contracts							
Swaps	$ 20,981.8	$ 167.4	$ 9.3	$ 176.7	$ 173.1	$ 0.3	$ 173.4
Futures and forwards	5,928.5	2.2	—	2.2	2.2	—	2.2
Written options	1,753.4	—	—	—	35.9	—	35.9
Purchased options	1,772.5	40.1	—	40.1	—	—	—
Foreign exchange contracts							
Swaps	1,791.8	34.6	1.2	35.8	38.1	1.6	39.7
Spot, futures and forwards	5,052.2	34.4	0.2	34.6	36.1	0.5	36.6
Written options	286.7	—	—	—	4.0	—	4.0
Purchased options	271.3	3.8	—	3.8	—	—	—
Equity contracts							
Swaps	273.6	5.6	—	5.6	6.3	—	6.3
Futures and forwards	116.8	0.3	—	0.3	0.8	—	0.8
Written options	761.4	—	—	—	31.2	—	31.2
Purchased options	699.9	37.1	—	37.1	—	—	—
Commodity contracts							
Swaps	42.1	2.9	—	2.9	4.7	—	4.7
Futures and forwards	57.8	3.2	—	3.2	0.5	—	0.5
Written options	30.3	—	—	—	1.4	—	1.4
Purchased options	26.9	1.3	—	1.3	—	—	—
Credit derivatives (2)							
Purchased credit derivatives:							
Credit default swaps	413.1	4.1	—	4.1	6.7	—	6.7
Total return swaps/options	75.5	0.1	—	0.1	1.2	—	1.2
Written credit derivatives:							
Credit default swaps	369.3	6.3	—	6.3	3.3	—	3.3
Total return swaps/options	80.5	0.6	—	0.6	0.4	—	0.4
Gross derivative assets/liabilities		$ 344.0	$ 10.7	$ 354.7	$ 345.9	$ 2.4	$ 348.3
Less: Legally enforceable master netting agreements				(275.9)			(275.9)
Less: Cash collateral received/paid				(33.9)			(34.0)
Total derivative assets/liabilities				$ 44.9			$ 38.4

(1) Represents the total contract/notional amount of derivative assets and liabilities outstanding.
(2) The net derivative asset (liability) and notional amount of written credit derivatives for which the Corporation held purchased credit derivatives with identical underlying referenced names were $2.7 billion and $353.5 billion at June 30, 2019.

(Dollars in billions)	Contract/ Notional (1)	December 31, 2018 Gross Derivative Assets Trading and Other Risk Management Derivatives	Gross Derivative Assets Qualifying Accounting Hedges	Gross Derivative Assets Total	Gross Derivative Liabilities Trading and Other Risk Management Derivatives	Gross Derivative Liabilities Qualifying Accounting Hedges	Gross Derivative Liabilities Total
Interest rate contracts							
Swaps	$ 15,977.9	$ 141.0	$ 3.2	$ 144.2	$ 138.9	$ 2.0	$ 140.9
Futures and forwards	3,656.6	4.7	—	4.7	5.0	—	5.0
Written options	1,584.9	—	—	—	28.6	—	28.6
Purchased options	1,614.0	30.8	—	30.8	—	—	—
Foreign exchange contracts							
Swaps	1,704.8	38.8	1.4	40.2	42.2	2.3	44.5
Spot, futures and forwards	4,276.0	39.8	0.4	40.2	39.3	0.3	39.6
Written options	256.7	—	—	—	5.0	—	5.0
Purchased options	240.4	4.6	—	4.6	—	—	—
Equity contracts							
Swaps	253.6	7.7	—	7.7	8.4	—	8.4
Futures and forwards	100.0	2.1	—	2.1	0.3	—	0.3
Written options	597.1	—	—	—	27.5	—	27.5
Purchased options	549.4	36.0	—	36.0	—	—	—
Commodity contracts							
Swaps	43.1	2.7	—	2.7	4.5	—	4.5
Futures and forwards	51.7	3.2	—	3.2	0.5	—	0.5
Written options	27.5	—	—	—	2.2	—	2.2
Purchased options	23.4	1.7	—	1.7	—	—	—
Credit derivatives (2)							
Purchased credit derivatives:							
Credit default swaps	408.1	5.3	—	5.3	4.9	—	4.9
Total return swaps/options	84.5	0.4	—	0.4	1.0	—	1.0
Written credit derivatives:							
Credit default swaps	371.9	4.4	—	4.4	4.3	—	4.3
Total return swaps/options	87.3	0.6	—	0.6	0.6	—	0.6
Gross derivative assets/liabilities		$ 323.8	$ 5.0	$ 328.8	$ 313.2	$ 4.6	$ 317.8
Less: Legally enforceable master netting agreements				(252.7)			(252.7)
Less: Cash collateral received/paid				(32.4)			(27.2)
Total derivative assets/liabilities				$ 43.7			$ 37.9

(1) Represents the total contract/notional amount of derivative assets and liabilities outstanding.
(2) The net derivative asset (liability) and notional amount of written credit derivatives for which the Corporation held purchased credit derivatives with identical underlying referenced names were $(185) million and $342.8 billion at December 31, 2018.

Offsetting of Derivatives

The Corporation enters into International Swaps and Derivatives Association, Inc. (ISDA) master netting agreements or similar agreements with substantially all of the Corporation's derivative counterparties. For additional information, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

The following table presents derivative instruments included in derivative assets and liabilities on the Consolidated Balance Sheet at June 30, 2019 and December 31, 2018 by primary risk (e.g., interest rate risk) and the platform, where applicable, on which these derivatives are transacted. Balances are presented on a gross basis, prior to the application of counterparty and cash collateral netting. Total gross derivative assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements which include reducing the balance for counterparty netting and cash collateral received or paid.

For more information on offsetting of securities financing agreements, see *Note 10 – Federal Funds Sold or Purchased, Securities Financing Agreements, Short-term Borrowings and Restricted Cash*.

Offsetting of Derivatives (1)

(Dollars in billions)	**Derivative Assets**	**Derivative Liabilities**	Derivative Assets	Derivative Liabilities
	June 30, 2019		December 31, 2018	
Interest rate contracts				
Over-the-counter	**$ 210.5**	**$ 203.5**	$ 174.2	$ 169.4
Exchange-traded	**0.1**	**—**	—	—
Over-the-counter cleared	**6.3**	**5.5**	4.8	4.0
Foreign exchange contracts				
Over-the-counter	**71.6**	**77.8**	82.5	86.3
Over-the-counter cleared	**1.1**	**1.0**	0.9	0.9
Equity contracts				
Over-the-counter	**21.2**	**15.2**	24.6	14.6
Exchange-traded	**15.2**	**14.1**	16.1	15.1
Commodity contracts				
Over-the-counter	**3.7**	**4.6**	3.5	4.5
Exchange-traded	**0.7**	**0.7**	1.0	0.9
Over-the-counter cleared	**0.1**	**—**	—	—
Credit derivatives				
Over-the-counter	**6.7**	**7.5**	7.7	8.2
Over-the-counter cleared	**4.0**	**3.7**	2.5	2.3
Total gross derivative assets/liabilities, before netting				
Over-the-counter	**313.7**	**308.6**	292.5	283.0
Exchange-traded	**16.0**	**14.8**	17.1	16.0
Over-the-counter cleared	**11.5**	**10.2**	8.2	7.2
Less: Legally enforceable master netting agreements and cash collateral received/paid				
Over-the-counter	**(286.4)**	**(287.0)**	(264.4)	(259.2)
Exchange-traded	**(12.7)**	**(12.7)**	(13.5)	(13.5)
Over-the-counter cleared	**(10.7)**	**(10.2)**	(7.2)	(7.2)
Derivative assets/liabilities, after netting	**31.4**	**23.7**	32.7	26.3
Other gross derivative assets/liabilities (2)	**13.5**	**14.7**	11.0	11.6
Total derivative assets/liabilities	**44.9**	**38.4**	43.7	37.9
Less: Financial instruments collateral (3)	**(15.1)**	**(10.8)**	(16.3)	(8.6)
Total net derivative assets/liabilities	**$ 29.8**	**$ 27.6**	$ 27.4	$ 29.3

(1) Over-the-counter (OTC) derivatives include bilateral transactions between the Corporation and a particular counterparty. OTC-cleared derivatives include bilateral transactions between the Corporation and a counterparty where the transaction is cleared through a clearinghouse. Exchange-traded derivatives include listed options transacted on an exchange.
(2) Consists of derivatives entered into under master netting agreements where the enforceability of these agreements is uncertain under bankruptcy laws in some countries or industries.
(3) Amounts are limited to the derivative asset/liability balance and, accordingly, do not include excess collateral received/pledged. Financial instruments collateral includes securities collateral received or pledged and cash securities held and posted at third-party custodians that are not offset on the Consolidated Balance Sheet but shown as a reduction to derive net derivative assets and liabilities.

Transfers of Financial Assets with Risk Retained through Derivatives

The Corporation enters into certain transactions involving the transfer of financial assets that are accounted for as sales where substantially all of the economic exposure to the transferred financial assets is retained through derivatives (e.g., interest rate and/or credit), but the Corporation does not retain control over the assets transferred. As of June 30, 2019 and December 31, 2018, the Corporation had transferred $5.6 billion and $5.8 billion of non-U.S. government-guaranteed mortgage-backed securities (MBS) to a third-party trust and retained economic exposure to the transferred assets through derivative contracts. In connection with these transfers, the Corporation received gross cash proceeds of $5.6 billion and $5.8 billion at the transfer dates. At June 30, 2019 and December 31, 2018, the fair value of the transferred securities was $5.6 billion and $5.5 billion.

ALM and Risk Management Derivatives

The Corporation's asset and liability management (ALM) and risk management activities include the use of derivatives to mitigate risk to the Corporation including derivatives designated in qualifying hedge accounting relationships and derivatives used in other risk management activities. For additional information, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Derivatives Designated as Accounting Hedges

The Corporation uses various types of interest rate and foreign exchange derivative contracts to protect against changes in the fair value of its assets and liabilities due to fluctuations in interest rates and exchange rates (fair value hedges). The Corporation also uses these types of contracts to protect against changes in the cash flows of its assets and liabilities, and other forecasted transactions (cash flow hedges). The Corporation hedges its net investment in consolidated non-U.S. operations determined to have functional currencies other than the U.S. dollar using forward exchange contracts and cross-currency basis swaps, and by issuing foreign currency-denominated debt (net investment hedges).

Fair Value Hedges

The table below summarizes information related to fair value hedges for the three and six months ended June 30, 2019 and 2018.

Gains and Losses on Derivatives Designated as Fair Value Hedges

(Dollars in millions)	Three Months Ended June 30, 2019 Derivative	Three Months Ended June 30, 2019 Hedged Item	Three Months Ended June 30, 2018 Derivative	Three Months Ended June 30, 2018 Hedged Item
Interest rate risk on long-term debt [1]	**$ 4,132**	**$ (4,121)**	$ (869)	$ 821
Interest rate and foreign currency risk on long-term debt [2]	**41**	**(32)**	(1,067)	934
Interest rate risk on available-for-sale securities [3]	**(55)**	**55**	(1)	1
Total	**$ 4,118**	**$ (4,098)**	$ (1,937)	$ 1,756

	Six Months Ended June 30, 2019 Derivative	Six Months Ended June 30, 2019 Hedged Item	Six Months Ended June 30, 2018 Derivative	Six Months Ended June 30, 2018 Hedged Item
Interest rate risk on long-term debt (1)	**$ 6,045**	**$ (6,050)**	$ (3,174)	$ 3,057
Interest rate and foreign currency risk on long-term debt (2)	**98**	**(80)**	(745)	588
Interest rate risk on available-for-sale securities (3)	**(100)**	**98**	(32)	31
Total	**$ 6,043**	**$ (6,032)**	$ (3,951)	$ 3,676

(1) Amounts are recorded in interest expense in the Consolidated Statement of Income.
(2) For the three and six months ended June 30, 2019, the derivative amount includes gains (losses) of $(3) million and $167 million in interest expense, $30 million and $(89) million in other income and $14 million and $20 million in accumulated other comprehensive income (OCI). For the same periods in 2018, the derivative amount includes gains (losses) of $25 million and $(39) million in interest expense, $(1.0) billion and $(576) million in other income, and $(83) million and $(130) million in accumulated OCI. Line item totals are in the Consolidated Statement of Income and in the Consolidated Balance Sheet.
(3) Amounts are recorded in interest income in the Consolidated Statement of Income.

The table below summarizes the carrying value of hedged assets and liabilities that are designated and qualifying in fair value hedging relationships along with the cumulative amount of fair value hedging adjustments included in the carrying value that have been recorded in the current hedging relationships. These fair value hedging adjustments are open basis adjustments that are not subject to amortization as long as the hedging relationship remains designated.

Designated Fair Value Hedged Assets (Liabilities)

(Dollars in millions)	June 30, 2019 Carrying Value	June 30, 2019 Cumulative Fair Value Adjustments [1]	December 31, 2018 Carrying Value	December 31, 2018 Cumulative Fair Value Adjustments [1]
Long-term debt [2]	**$ (157,894)**	**$ (8,657)**	$ (138,682)	$ (2,117)
Available-for-sale debt securities [2]	**1,650**	**58**	981	(29)

(1) For assets, increase (decrease) to carrying value and for liabilities, (increase) decrease to carrying value.
(2) At June 30, 2019 and December 31, 2018, the cumulative fair value adjustments remaining on long-term debt and available-for-sale (AFS) debt securities from discontinued hedging relationships resulted in a decrease in the related liability of $1.5 billion and $1.6 billion and an increase (decrease) in the related asset of $4 million and $(29) million, which are being amortized over the remaining contractual life of the de-designated hedged items.

Cash Flow and Net Investment Hedges

The following table summarizes certain information related to cash flow hedges and net investment hedges for the three and six months ended June 30, 2019 and 2018. Of the $483 million after-tax net loss ($635 million pretax) on derivatives in accumulated OCI at June 30, 2019, $109 million after-tax ($143 million pretax) is expected to be reclassified into earnings in the next 12 months. These net losses reclassified into earnings are expected to primarily reduce net interest income related to the respective hedged items. For terminated cash flow hedges, the time period over which the majority of the forecasted transactions are hedged is approximately 4 years, with a maximum length of time for certain forecasted transactions of 17 years.

Gains and Losses on Derivatives Designated as Cash Flow and Net Investment Hedges

(Dollars in millions, amounts pretax)	Gains (Losses) Recognized in Accumulated OCI on Derivatives	Gains (Losses) in Income Reclassified from Accumulated OCI	Gains (Losses) Recognized in Accumulated OCI on Derivatives	Gains (Losses) in Income Reclassified from Accumulated OCI
	Three Months Ended June 30, 2019		**Six Months Ended June 30, 2019**	
Cash flow hedges				
Interest rate risk on variable-rate assets [1]	**$ 364**	**$ (28)**	**$ 618**	**$ (51)**
Net investment hedges				
Foreign exchange risk [2]	**$ (202)**	**$ —**	**$ (196)**	**$ 1**
	Three Months Ended June 30, 2018		Six Months Ended June 30, 2018	
Cash flow hedges				
Interest rate risk on variable-rate assets [1]	$ (71)	$ (33)	$ (499)	$ (83)
Price risk on certain restricted stock awards [3]	—	—	4	27
Total	$ (71)	$ (33)	$ (495)	$ (56)
Net investment hedges				
Foreign exchange risk [2]	$ 923	$ —	$ 679	$ (1)

(1) Amounts reclassified from accumulated OCI are recorded in interest income in the Consolidated Statement of Income.
(2) Amounts reclassified from accumulated OCI are recorded in other income in the Consolidated Statement of Income. For the three and six months ended June 30, 2019, amounts excluded from effectiveness testing and recognized in other income were gains of $24 million and $77 million. For the same periods in 2018, amounts excluded from effectiveness testing and recognized in other income were gains of $24 million and $29 million.
(3) Amounts reclassified from accumulated OCI are recorded in compensation and benefits expense in the Consolidated Statement of Income.

Other Risk Management Derivatives

Other risk management derivatives are used by the Corporation to reduce certain risk exposures by economically hedging various assets and liabilities. The gains and losses on these derivatives are recognized in other income. The table below presents gains (losses) on these derivatives for the three and six months ended June 30, 2019 and 2018. These gains (losses) are largely offset by the income or expense recorded on the hedged item.

Gains and Losses on Other Risk Management Derivatives

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2019**	2018	**2019**	2018
Interest rate risk on mortgage activities (1)	**$ 147**	$ (26)	**$ 251**	$ (161)
Credit risk on loans	**(14)**	(2)	**(40)**	(5)
Interest rate and foreign currency risk on ALM activities (2)	**(292)**	702	**820**	563

(1) Primarily related to hedges of interest rate risk on mortgage servicing rights (MSRs) and interest rate lock commitments (IRLCs) to originate mortgage loans that will be held for sale. The net gains on IRLCs, which are not included in the table but are considered derivative instruments, were $24 million and $36 million for the three and six months ended June 30, 2019 compared to $14 million and $28 million for the same periods in 2018.
(2) Primarily related to hedges of debt securities carried at fair value and hedges of foreign currency-denominated debt.

Sales and Trading Revenue

The Corporation enters into trading derivatives to facilitate client transactions and to manage risk exposures arising from trading account assets and liabilities. It is the Corporation's policy to include these derivative instruments in its trading activities which include derivatives and non-derivative cash instruments. The resulting risk from these derivatives is managed on a portfolio basis as part of the Corporation's *Global Markets* business segment. For more information on sales and trading revenue, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

The table below, which includes both derivatives and non-derivative cash instruments, identifies the amounts in the respective income statement line items attributable to the Corporation's sales and trading revenue in *Global Markets*, categorized by primary risk, for the three and six months ended June 30, 2019 and 2018. The difference between total trading account income in the following table and in the Consolidated Statement of Income represents trading activities in business segments other than *Global Markets*. This table includes debit valuation adjustment (DVA) and funding valuation adjustment (FVA) gains (losses). *Global Markets* results in *Note 18 – Business Segment Information* are presented on a fully taxable-equivalent (FTE) basis. The table below is not presented on an FTE basis.

Sales and Trading Revenue

	Trading Account Income	Net Interest Income	Other (1)	Total	Trading Account Income	Net Interest Income	Other (1)	Total
(Dollars in millions)	**Three Months Ended June 30, 2019**				**Six Months Ended June 30, 2019**			
Interest rate risk	**$ 304**	**$ 394**	**$ 63**	**$ 761**	**$ 590**	**$ 809**	**$ 144**	**$ 1,543**
Foreign exchange risk	**323**	**12**	**6**	**341**	**641**	**28**	**10**	**679**
Equity risk	**1,010**	**(264)**	**399**	**1,145**	**1,979**	**(440)**	**794**	**2,333**
Credit risk	**306**	**462**	**128**	**896**	**807**	**891**	**262**	**1,960**
Other risk	**17**	**30**	**21**	**68**	**24**	**48**	**35**	**107**
Total sales and trading revenue	**$ 1,960**	**$ 634**	**$ 617**	**$ 3,211**	**$ 4,041**	**$ 1,336**	**$ 1,245**	**$ 6,622**
	Three Months Ended June 30, 2018				Six Months Ended June 30, 2018			
Interest rate risk	$ 255	$ 412	$ 14	$ 681	$ 713	$ 824	$ 86	$ 1,623
Foreign exchange risk	388	(4)	3	387	790	(5)	7	792
Equity risk	1,066	(170)	405	1,301	2,192	(266)	862	2,788
Credit risk	283	483	147	913	823	949	295	2,067
Other risk	28	41	20	89	58	88	34	180
Total sales and trading revenue	$ 2,020	$ 762	$ 589	$ 3,371	$ 4,576	$ 1,590	$ 1,284	$ 7,450

(1) Represents amounts in investment and brokerage services and other income that are recorded in *Global Markets* and included in the definition of sales and trading revenue. Includes investment and brokerage services revenue of $423 million and $857 million for the three and six months ended June 30, 2019 compared to $420 million and $897 million for the same periods in 2018.

Credit Derivatives

The Corporation enters into credit derivatives primarily to facilitate client transactions and to manage credit risk exposures. Credit derivatives are classified as investment and non-investment grade based on the credit quality of the underlying referenced obligation. The Corporation considers ratings of BBB- or higher as investment grade. Non-investment grade includes non-rated credit derivative instruments. The Corporation discloses internal categorizations of investment grade and non-investment grade consistent with how risk is managed for these instruments. For more information on credit derivatives, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Credit derivative instruments where the Corporation is the seller of credit protection and their expiration at June 30, 2019 and December 31, 2018 are summarized in the following table.

Credit Derivative Instruments

(Dollars in millions)	Less than One Year	One to Three Years	Three to Five Years	Over Five Years	Total
	June 30, 2019				
	Carrying Value				
Credit default swaps:					
Investment grade	**$ —**	**$ 20**	**$ 142**	**$ 477**	**$ 639**
Non-investment grade	**195**	**488**	**702**	**1,244**	**2,629**
Total	**195**	**508**	**844**	**1,721**	**3,268**
Total return swaps/options:					
Investment grade	**28**	**—**	**—**	**—**	**28**
Non-investment grade	**363**	**14**	**—**	**—**	**377**
Total	**391**	**14**	**—**	**—**	**405**
Total credit derivatives	**$ 586**	**$ 522**	**$ 844**	**$ 1,721**	**$ 3,673**
Credit-related notes:					
Investment grade	**$ —**	**$ 3**	**$ —**	**$ 600**	**$ 603**
Non-investment grade	**2**	**1**	**3**	**1,545**	**1,551**
Total credit-related notes	**$ 2**	**$ 4**	**$ 3**	**$ 2,145**	**$ 2,154**
	Maximum Payout/Notional				
Credit default swaps:					
Investment grade	**$ 51,315**	**$ 87,580**	**$ 105,430**	**$ 19,732**	**$ 264,057**
Non-investment grade	**20,038**	**31,412**	**39,832**	**14,007**	**105,289**
Total	**71,353**	**118,992**	**145,262**	**33,739**	**369,346**
Total return swaps/options:					
Investment grade	**56,759**	**160**	**62**	**75**	**57,056**
Non-investment grade	**22,344**	**866**	**133**	**64**	**23,407**
Total	**79,103**	**1,026**	**195**	**139**	**80,463**
Total credit derivatives	**$ 150,456**	**$ 120,018**	**$ 145,457**	**$ 33,878**	**$ 449,809**
	December 31, 2018				
	Carrying Value				
Credit default swaps:					
Investment grade	$ 2	$ 44	$ 436	$ 488	$ 970
Non-investment grade	132	636	914	1,691	3,373
Total	134	680	1,350	2,179	4,343
Total return swaps/options:					
Investment grade	105	—	—	—	105
Non-investment grade	472	21	—	—	493
Total	577	21	—	—	598
Total credit derivatives	$ 711	$ 701	$ 1,350	$ 2,179	$ 4,941
Credit-related notes:					
Investment grade	$ —	$ —	$ 4	$ 532	$ 536
Non-investment grade	1	1	1	1,500	1,503
Total credit-related notes	$ 1	$ 1	$ 5	$ 2,032	$ 2,039
	Maximum Payout/Notional				
Credit default swaps:					
Investment grade	$ 53,758	$ 95,699	$ 95,274	$ 20,054	$ 264,785
Non-investment grade	24,297	33,881	34,530	14,426	107,134
Total	78,055	129,580	129,804	34,480	371,919
Total return swaps/options:					
Investment grade	60,042	822	59	72	60,995
Non-investment grade	24,524	1,649	39	70	26,282
Total	84,566	2,471	98	142	87,277
Total credit derivatives	$ 162,621	$ 132,051	$ 129,902	$ 34,622	$ 459,196

The notional amount represents the maximum amount payable by the Corporation for most credit derivatives. However, the Corporation does not monitor its exposure to credit derivatives based solely on the notional amount because this measure does not take into consideration the probability of occurrence. As such, the notional amount is not a reliable indicator of the Corporation's exposure to these contracts. Instead, a risk framework is used to define risk tolerances and establish limits so that certain credit risk-related losses occur within acceptable, predefined limits.

Credit-related notes in the table above include investments in securities issued by collateralized debt obligation (CDO), collateralized loan obligation and credit-linked note vehicles. These instruments are primarily classified as trading securities. The carrying value of these instruments equals the Corporation's maximum exposure to loss. The Corporation is not obligated to make any payments to the entities under the terms of the securities owned.

Credit-related Contingent Features and Collateral

A majority of the Corporation's derivative contracts contain credit risk-related contingent features, primarily in the form of ISDA master netting agreements and credit support documentation that enhance the creditworthiness of these instruments compared to other obligations of the respective counterparty with whom the Corporation has transacted. These contingent features may be for the benefit of the Corporation as well as its counterparties with respect to changes in the Corporation's creditworthiness and the mark-to-market exposure under the derivative transactions. At June 30, 2019 and December 31, 2018, the Corporation held cash and securities collateral of $81.6 billion at both period ends and posted cash and securities collateral of $67.1 billion and $56.5 billion in the normal course of business under derivative agreements, excluding cross-product margining agreements where clients are permitted to margin on a net basis for both derivative and secured financing arrangements.

In connection with certain OTC derivative contracts and other trading agreements, the Corporation can be required to provide additional collateral or to terminate transactions with certain counterparties in the event of a downgrade of the senior debt ratings of the Corporation or certain subsidiaries. The amount of additional collateral required depends on the contract and is usually a fixed incremental amount and/or the market value of the exposure. For more information on credit-related contingent features and collateral, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

At June 30, 2019, the amount of collateral, calculated based on the terms of the contracts, that the Corporation and certain subsidiaries could be required to post to counterparties but had not yet posted to counterparties was $1.9 billion, including $1.2 billion for Bank of America, National Association.

Some counterparties are currently able to unilaterally terminate certain contracts, or the Corporation or certain subsidiaries may be required to take other action such as find a suitable replacement or obtain a guarantee. At June 30, 2019 and December 31, 2018, the liability recorded for these derivative contracts was not significant.

The following table presents the amount of additional collateral that would have been contractually required by derivative contracts and other trading agreements at June 30, 2019 if the rating agencies had downgraded their long-term senior debt ratings for the Corporation or certain subsidiaries by one incremental notch and by an additional second incremental notch.

Additional Collateral Required to be Posted Upon Downgrade at June 30, 2019

(Dollars in millions)	One incremental notch	Second incremental notch
Bank of America Corporation	$ 522	$ 454
Bank of America, N.A. and subsidiaries (1)	203	312

(1) Included in Bank of America Corporation collateral requirements in this table.

The following table presents the derivative liabilities that would be subject to unilateral termination by counterparties and the amounts of collateral that would have been contractually required at June 30, 2019 if the long-term senior debt ratings for the Corporation or certain subsidiaries had been lower by one incremental notch and by an additional second incremental notch.

Derivative Liabilities Subject to Unilateral Termination Upon Downgrade at June 30, 2019

(Dollars in millions)	One incremental notch	Second incremental notch
Derivative liabilities	$ 21	$ 1,036
Collateral posted	9	586

Valuation Adjustments on Derivatives

The table below presents credit valuation adjustment (CVA), DVA and FVA gains (losses) on derivatives, which are recorded in trading account income, on a gross and net of hedge basis for the three and six months ended June 30, 2019 and 2018. For more information on the valuation adjustments on derivatives, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Valuation Adjustments Gains (Losses) on Derivatives (1)

	Three Months Ended June 30			
	2019		2018	
(Dollars in millions)	**Gross**	**Net**	Gross	Net
Derivative assets (CVA)	**$ (64)**	**$ (2)**	$ 139	$ 127
Derivative assets/liabilities (FVA)	**26**	**16**	28	(18)
Derivative liabilities (DVA)	**8**	**(7)**	(159)	(159)
	Six Months Ended June 30			
	2019		2018	
Derivative assets (CVA)	**$ 2**	**$ 22**	$ 115	$ 145
Derivative assets/liabilities (FVA)	**33**	**39**	(9)	(19)
Derivative liabilities (DVA)	**(73)**	**(72)**	(43)	(53)

(1) At June 30, 2019 and December 31, 2018, cumulative CVA reduced the derivative assets balance by $598 million and $600 million, cumulative FVA reduced the net derivatives balance by $118 million and $151 million, and cumulative DVA reduced the derivative liabilities balance by $359 million and $432 million, respectively.

NOTE 4 Securities

The table below presents the amortized cost, gross unrealized gains and losses, and fair value of AFS debt securities, other debt securities carried at fair value and held-to-maturity (HTM) debt securities at June 30, 2019 and December 31, 2018.

Debt Securities

(Dollars in millions)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	June 30, 2019			
Available-for-sale debt securities				
Mortgage-backed securities:				
Agency	**$ 125,792**	**$ 576**	**$ (799)**	**$ 125,569**
Agency-collateralized mortgage obligations	**5,157**	**80**	**(27)**	**5,210**
Commercial	**14,313**	**228**	**(16)**	**14,525**
Non-agency residential (1)	**1,789**	**242**	**(9)**	**2,022**
Total mortgage-backed securities	**147,051**	**1,126**	**(851)**	**147,326**
U.S. Treasury and agency securities	**56,157**	**908**	**(246)**	**56,819**
Non-U.S. securities	**11,178**	**8**	**(1)**	**11,185**
Other taxable securities, substantially all asset-backed securities	**3,622**	**73**	**—**	**3,695**
Total taxable securities	**218,008**	**2,115**	**(1,098)**	**219,025**
Tax-exempt securities	**16,799**	**189**	**(34)**	**16,954**
Total available-for-sale debt securities	**234,807**	**2,304**	**(1,132)**	**235,979**
Other debt securities carried at fair value (2)	**9,942**	**195**	**(22)**	**10,115**
Total debt securities carried at fair value	**244,749**	**2,499**	**(1,154)**	**246,094**
Held-to-maturity debt securities, substantially all U.S. agency mortgage-backed securities	**199,981**	**3,339**	**(836)**	**202,484**
Total debt securities (3, 4)	**$ 444,730**	**$ 5,838**	**$ (1,990)**	**$ 448,578**
	December 31, 2018			
Available-for-sale debt securities				
Mortgage-backed securities:				
Agency	$ 125,116	$ 138	$ (3,428)	$ 121,826
Agency-collateralized mortgage obligations	5,621	19	(110)	5,530
Commercial	14,469	11	(402)	14,078
Non-agency residential (1)	1,792	136	(11)	1,917
Total mortgage-backed securities	146,998	304	(3,951)	143,351
U.S. Treasury and agency securities	56,239	62	(1,378)	54,923
Non-U.S. securities	9,307	5	(6)	9,306
Other taxable securities, substantially all asset-backed securities	4,387	29	(6)	4,410
Total taxable securities	216,931	400	(5,341)	211,990
Tax-exempt securities	17,349	99	(72)	17,376
Total available-for-sale debt securities	234,280	499	(5,413)	229,366
Other debt securities carried at fair value (2)	8,595	172	(32)	8,735
Total debt securities carried at fair value	242,875	671	(5,445)	238,101
Held-to-maturity debt securities, substantially all U.S. agency mortgage-backed securities	203,652	747	(3,964)	200,435
Total debt securities (3, 4)	$ 446,527	$ 1,418	$ (9,409)	$ 438,536

(1) At June 30, 2019 and December 31, 2018, the underlying collateral type included approximately 67 percent and 68 percent prime, four percent Alt-A for both periods and 29 percent and 28 percent subprime.
(2) Primarily includes non-U.S. securities used to satisfy certain international regulatory requirements. Any changes in value are reported in other income. For detail on the components, see *Note 15 – Fair Value Measurements*.
(3) Includes securities pledged as collateral of $42.0 billion and $40.6 billion at June 30, 2019 and December 31, 2018.
(4) The Corporation held debt securities from Fannie Mae (FNMA) and Freddie Mac (FHLMC) that each exceeded 10 percent of shareholders' equity, with an amortized cost of $160.1 billion and $51.4 billion, and a fair value of $161.9 billion and $52.1 billion at June 30, 2019, and an amortized cost of $161.2 billion and $52.2 billion, and a fair value of $158.5 billion and $51.4 billion at December 31, 2018.

At June 30, 2019, the accumulated net unrealized gain on AFS debt securities, excluding the amount related to debt securities previously transferred to held to maturity, included in accumulated OCI was $894 million, net of the related income tax expense of $278 million. The Corporation had nonperforming AFS debt securities of $11 million at both June 30, 2019 and December 31, 2018.

At June 30, 2019, the Corporation held equity securities at an aggregate fair value of $861 million and other equity securities, as valued under the measurement alternative, at cost of $184 million, both of which are included in other assets. At June 30, 2019, the Corporation also held equity securities at fair value of $1.2 billion included in time deposits placed and other short-term investments.

In the three and six months ended June 30, 2019, the Corporation recorded gross realized gains on sales of AFS debt securities of $110 million and $227 million and gross realized losses of $1 million and $112 million, resulting in net gains of $109 million and $115 million, with $26 million and $28 million of income taxes attributable to the realized net gains on sales of these AFS debt securities. For the same periods in 2018, gross gains and losses were not significant.

The table below presents the fair value and the associated gross unrealized losses on AFS debt securities and whether these securities have had gross unrealized losses for less than 12 months or for 12 months or longer at June 30, 2019 and December 31, 2018.

Temporarily Impaired and Other-than-temporarily Impaired AFS Debt Securities

	Less than Twelve Months		Twelve Months or Longer		Total	
(Dollars in millions)	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
	June 30, 2019					
Temporarily impaired AFS debt securities						
Mortgage-backed securities:						
Agency	**$ 106**	**$ —**	**$ 75,567**	**$ (799)**	**$ 75,673**	**$ (799)**
Agency-collateralized mortgage obligations	**59**	**—**	**1,652**	**(27)**	**1,711**	**(27)**
Commercial	**859**	**(4)**	**1,639**	**(12)**	**2,498**	**(16)**
Non-agency residential	**35**	**(1)**	**1**	**—**	**36**	**(1)**
Total mortgage-backed securities	**1,059**	**(5)**	**78,859**	**(838)**	**79,918**	**(843)**
U.S. Treasury and agency securities	**821**	**(4)**	**22,323**	**(242)**	**23,144**	**(246)**
Non-U.S. securities	**1,335**	**(1)**	**—**	**—**	**1,335**	**(1)**
Other taxable securities, substantially all asset-backed securities	**332**	**—**	**3**	**—**	**335**	**—**
Total taxable securities	**3,547**	**(10)**	**101,185**	**(1,080)**	**104,732**	**(1,090)**
Tax-exempt securities	**50**	**—**	**567**	**(34)**	**617**	**(34)**
Total temporarily impaired AFS debt securities	**3,597**	**(10)**	**101,752**	**(1,114)**	**105,349**	**(1,124)**
Other-than-temporarily impaired AFS debt securities (1)						
Non-agency residential mortgage-backed securities	**176**	**(5)**	**20**	**(3)**	**196**	**(8)**
Total temporarily impaired and other-than-temporarily impaired AFS debt securities	**$ 3,773**	**$ (15)**	**$ 101,772**	**$ (1,117)**	**$ 105,545**	**$ (1,132)**
	December 31, 2018					
Temporarily impaired AFS debt securities						
Mortgage-backed securities:						
Agency	$ 14,771	$ (49)	$ 99,211	$ (3,379)	$ 113,982	$ (3,428)
Agency-collateralized mortgage obligations	3	—	4,452	(110)	4,455	(110)
Commercial	1,344	(8)	11,991	(394)	13,335	(402)
Non-agency residential	106	(8)	49	(3)	155	(11)
Total mortgage-backed securities	16,224	(65)	115,703	(3,886)	131,927	(3,951)
U.S. Treasury and agency securities	288	(1)	51,374	(1,377)	51,662	(1,378)
Non-U.S. securities	773	(5)	21	(1)	794	(6)
Other taxable securities, substantially all asset-backed securities	183	(1)	185	(5)	368	(6)
Total taxable securities	17,468	(72)	167,283	(5,269)	184,751	(5,341)
Tax-exempt securities	232	(2)	2,148	(70)	2,380	(72)
Total temporarily impaired AFS debt securities	17,700	(74)	169,431	(5,339)	187,131	(5,413)
Other-than-temporarily impaired AFS debt securities (1)						
Non-agency residential mortgage-backed securities	131	—	3	—	134	—
Total temporarily impaired and other-than-temporarily impaired AFS debt securities	$ 17,831	$ (74)	$ 169,434	$ (5,339)	$ 187,265	$ (5,413)

(1) Includes other-than-temporarily impaired AFS debt securities on which an OTTI loss, primarily related to changes in interest rates, remains in accumulated OCI.

The Corporation had $9 million and $11 million of credit-related other-than-temporary impairment (OTTI) losses on AFS debt securities which were recognized in other income for the three and six months ended June 30, 2019 compared to $8 million and $11 million for the same periods in 2018. The amount of noncredit-related OTTI losses for these AFS debt securities, which is recognized in OCI, was not significant for both periods presented.

The cumulative OTTI credit losses that have been recognized in income on AFS debt securities that the Corporation does not intend to sell were $123 million and $264 million at June 30, 2019 and 2018.

For more information on OTTI losses and significant assumptions used for the Corporation's underlying collateral, see *Note 4 – Securities* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K. Significant assumptions used in estimating the expected cash flows for measuring credit losses on non-agency residential mortgage-backed securities (RMBS) were as follows at June 30, 2019.

Significant Assumptions

	Weighted average	Range (1) 10th Percentile (2)	Range (1) 90th Percentile (2)
Prepayment speed	16.1%	4.8%	27.9%
Loss severity	15.9	8.0	33.1
Life default rate	12.7	0.9	41.7

(1) Represents the range of inputs/assumptions based upon the underlying collateral.
(2) The value of a variable below which the indicated percentile of observations will fall.

Annual constant prepayment speed and loss severity rates are projected considering collateral characteristics such as loan-to-value (LTV), creditworthiness of borrowers as measured using Fair Isaac Corporation (FICO) scores, and geographic concentrations. The weighted-average severity by collateral type was 12.6 percent for prime, 11.9 percent for Alt-A and 20.7 percent for subprime at June 30, 2019. Default rates are projected by considering collateral characteristics including, but not limited to, LTV, FICO and geographic concentration. Weighted-average life default rates by collateral type were 8.6 percent for prime, 11.5 percent for Alt-A and 15.5 percent for subprime at June 30, 2019.

The remaining contractual maturity distribution and yields of the Corporation's debt securities carried at fair value and HTM debt securities at June 30, 2019 are summarized in the table below. Actual duration and yields may differ as prepayments on the loans underlying the mortgages or other asset-backed securities (ABS) are passed through to the Corporation.

Maturities of Debt Securities Carried at Fair Value and Held-to-maturity Debt Securities

	Due in One Year or Less		Due after One Year through Five Years		Due after Five Years through Ten Years		Due after Ten Years		Total	
(Dollars in millions)	Amount	Yield (1)	Amount	Yield (1)	Amount	Yield (1)	Amount	Yield (1)	Amount	Yield (1)
Amortized cost of debt securities carried at fair value										
Mortgage-backed securities:										
Agency	$ —	—%	$ 130	2.33%	$ 1,814	2.41%	$ 123,848	3.33%	$ 125,792	3.32%
Agency-collateralized mortgage obligations	—	—	—	—	28	2.54	5,129	3.17	5,157	3.17
Commercial	9	1.78	2,520	2.38	10,871	2.55	913	3.00	14,313	2.55
Non-agency residential	—	—	—	—	13	—	3,215	10.50	3,228	10.46
Total mortgage-backed securities	9	1.78	2,650	2.38	12,726	2.53	133,105	3.50	148,490	3.40
U.S. Treasury and agency securities	924	0.18	32,924	1.60	22,291	2.45	18	2.50	56,157	1.92
Non-U.S. securities	18,940	0.97	620	1.55	13	4.30	108	6.50	19,681	1.02
Other taxable securities, substantially all asset-backed securities	736	3.67	2,243	3.44	393	3.62	250	4.31	3,622	3.57
Total taxable securities	20,609	1.04	38,437	1.76	35,423	2.50	133,481	3.50	227,950	2.83
Tax-exempt securities	1,004	2.53	6,895	2.34	5,958	2.44	2,942	2.55	16,799	2.42
Total amortized cost of debt securities carried at fair value	**$ 21,613**	**1.11**	**$ 45,332**	**1.85**	**$ 41,381**	**2.49**	**$136,423**	**3.48**	**$244,749**	**2.80**
Amortized cost of HTM debt securities (2)	**$ 104**	**4.27**	**$ 37**	**3.97**	**$ 1,137**	**2.55**	**$198,703**	**3.24**	**$199,981**	**3.24**
Debt securities carried at fair value										
Mortgage-backed securities:										
Agency	$ —		$ 130		$ 1,814		$ 123,625		$ 125,569	
Agency-collateralized mortgage obligations	—		—		28		5,182		5,210	
Commercial	9		2,549		11,034		933		14,525	
Non-agency residential	—		—		27		3,593		3,620	
Total mortgage-backed securities	9		2,679		12,903		133,333		148,924	
U.S. Treasury and agency securities	924		32,856		23,020		19		56,819	
Non-U.S. securities	18,944		630		14		111		19,699	
Other taxable securities, substantially all asset-backed securities	743		2,284		417		254		3,698	
Total taxable securities	20,620		38,449		36,354		133,717		229,140	
Tax-exempt securities	1,005		6,908		6,074		2,967		16,954	
Total debt securities carried at fair value	**$ 21,625**		**$ 45,357**		**$ 42,428**		**$136,684**		**$246,094**	
Fair value of HTM debt securities (2)	**$ 104**		**$ 37**		**$ 1,148**		**$201,195**		**$202,484**	

(1) The weighted-average yield is computed based on a constant effective interest rate over the contractual life of each security. The average yield considers the contractual coupon and the amortization of premiums and accretion of discounts, excluding the effect of related hedging derivatives.
(2) Substantially all U.S. agency MBS.

NOTE 5 Outstanding Loans and Leases

The following tables present total outstanding loans and leases and an aging analysis for the Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments, by class of financing receivables, at June 30, 2019 and December 31, 2018.

(Dollars in millions)	30-59 Days Past Due (1)	60-89 Days Past Due (1)	90 Days or More Past Due (2)	Total Past Due 30 Days or More	Total Current or Less Than 30 Days Past Due (3)	Loans Accounted for Under the Fair Value Option	Total Outstandings
	June 30, 2019						
Consumer real estate							
Core portfolio							
Residential mortgage	$ 1,134	$ 226	$ 698	$ 2,058	$ 205,199		$ 207,257
Home equity	154	74	340	568	37,009		37,577
Non-core portfolio							
Residential mortgage	573	246	1,628	2,447	10,225		12,672
Home equity	85	43	203	331	6,226		6,557
Credit card and other consumer							
U.S. credit card	535	362	941	1,838	92,151		93,989
Direct/Indirect consumer (4)	278	109	30	417	90,433		90,850
Other consumer	—	—	—	—	174		174
Total consumer	2,759	1,060	3,840	7,659	441,417		449,076
Consumer loans accounted for under the fair value option (5)						$ 658	658
Total consumer loans and leases	2,759	1,060	3,840	7,659	441,417	658	449,734
Commercial							
U.S. commercial	444	278	406	1,128	304,567		305,695
Non-U.S. commercial	24	11	—	35	104,138		104,173
Commercial real estate (6)	15	22	15	52	61,607		61,659
Commercial lease financing	29	39	37	105	20,279		20,384
U.S. small business commercial	82	53	97	232	14,718		14,950
Total commercial	594	403	555	1,552	505,309		506,861
Commercial loans accounted for under the fair value option (5)						7,205	7,205
Total commercial loans and leases	594	403	555	1,552	505,309	7,205	514,066
Total loans and leases (7)	$ 3,353	$ 1,463	$ 4,395	$ 9,211	$ 946,726	$ 7,863	$ 963,800
Percentage of outstandings	0.35%	0.15%	0.46%	0.96%	98.23%	0.81%	100.00%

(1) Consumer real estate loans 30-59 days past due includes fully-insured loans of $578 million and nonperforming loans of $167 million. Consumer real estate loans 60-89 days past due includes fully-insured loans of $214 million and nonperforming loans of $121 million.
(2) Consumer real estate includes fully-insured loans of $1.4 billion.
(3) Consumer real estate includes $1.3 billion and direct/indirect consumer includes $50 million of nonperforming loans.
(4) Total outstandings includes auto and specialty lending loans and leases of $50.3 billion, unsecured consumer lending loans of $344 million, U.S. securities-based lending loans of $36.5 billion, non-U.S. consumer loans of $2.9 billion and other consumer loans of $811 million.
(5) Consumer loans accounted for under the fair value option includes residential mortgage loans of $300 million and home equity loans of $358 million. Commercial loans accounted for under the fair value option includes U.S. commercial loans of $3.9 billion and non-U.S. commercial loans of $3.3 billion. For additional information, see *Note 15 – Fair Value Measurements* and *Note 16 – Fair Value Option*.
(6) Total outstandings includes U.S. commercial real estate loans of $57.0 billion and non-U.S. commercial real estate loans of $4.6 billion.
(7) Total outstandings includes loans and leases pledged as collateral of $32.3 billion. The Corporation also pledged $169.5 billion of loans with no related outstanding borrowings to secure potential borrowing capacity with the Federal Reserve Bank and Federal Home Loan Bank (FHLB).

(Dollars in millions)	30-59 Days Past Due (1)	60-89 Days Past Due (1)	90 Days or More Past Due (2)	Total Past Due 30 Days or More	Total Current or Less Than 30 Days Past Due (3)	Loans Accounted for Under the Fair Value Option	Total Outstandings
	December 31, 2018						
Consumer real estate							
Core portfolio							
Residential mortgage	$ 1,188	$ 249	$ 793	$ 2,230	$ 191,465		$ 193,695
Home equity	200	85	387	672	39,338		40,010
Non-core portfolio							
Residential mortgage	757	309	2,201	3,267	11,595		14,862
Home equity	139	69	339	547	7,729		8,276
Credit card and other consumer							
U.S. credit card	577	418	994	1,989	96,349		98,338
Direct/Indirect consumer (4)	317	90	40	447	90,719		91,166
Other consumer (5)	—	—	—	—	202		202
Total consumer	3,178	1,220	4,754	9,152	437,397		446,549
Consumer loans accounted for under the fair value option (6)						$ 682	682
Total consumer loans and leases	3,178	1,220	4,754	9,152	437,397	682	447,231
Commercial							
U.S. commercial	594	232	573	1,399	297,878		299,277
Non-U.S. commercial	1	49	—	50	98,726		98,776
Commercial real estate (7)	29	16	14	59	60,786		60,845
Commercial lease financing	124	114	37	275	22,259		22,534
U.S. small business commercial	83	54	96	233	14,332		14,565
Total commercial	831	465	720	2,016	493,981		495,997
Commercial loans accounted for under the fair value option (6)						3,667	3,667
Total commercial loans and leases	831	465	720	2,016	493,981	3,667	499,664
Total loans and leases (8)	$ 4,009	$ 1,685	$ 5,474	$ 11,168	$ 931,378	$ 4,349	$ 946,895
Percentage of outstandings	0.42%	0.18%	0.58%	1.18%	98.36%	0.46%	100.00%

(1) Consumer real estate loans 30-59 days past due includes fully-insured loans of $637 million and nonperforming loans of $217 million. Consumer real estate loans 60-89 days past due includes fully-insured loans of $269 million and nonperforming loans of $146 million.
(2) Consumer real estate includes fully-insured loans of $1.9 billion.
(3) Consumer real estate includes $1.8 billion and direct/indirect consumer includes $53 million of nonperforming loans.
(4) Total outstandings includes auto and specialty lending loans and leases of $50.1 billion, unsecured consumer lending loans of $383 million, U.S. securities-based lending loans of $37.0 billion, non-U.S. consumer loans of $2.9 billion and other consumer loans of $746 million.
(5) Substantially all of other consumer is consumer overdrafts.
(6) Consumer loans accounted for under the fair value option includes residential mortgage loans of $336 million and home equity loans of $346 million. Commercial loans accounted for under the fair value option includes U.S. commercial loans of $2.5 billion and non-U.S. commercial loans of $1.1 billion. For additional information, see *Note 15 – Fair Value Measurements* and *Note 16 – Fair Value Option*.
(7) Total outstandings includes U.S. commercial real estate loans of $56.6 billion and non-U.S. commercial real estate loans of $4.2 billion.
(8) Total outstandings includes loans and leases pledged as collateral of $36.7 billion. The Corporation also pledged $166.1 billion of loans with no related outstanding borrowings to secure potential borrowing capacity with the Federal Reserve Bank and FHLB.

The Corporation categorizes consumer real estate loans as core and non-core based on loan and customer characteristics such as origination date, product type, LTV, FICO score and delinquency status consistent with its current consumer and mortgage servicing strategy. Generally, loans that were originated after January 1, 2010, qualified under government-sponsored enterprise (GSE) underwriting guidelines, or otherwise met the Corporation's underwriting guidelines in place in 2015 are characterized as core loans. All other loans are generally characterized as non-core loans and represent runoff portfolios.

The Corporation has entered into long-term credit protection agreements with FNMA and FHLMC on loans totaling $6.6 billion and $6.1 billion at June 30, 2019 and December 31, 2018, providing full credit protection on residential mortgage loans that become severely delinquent. All of these loans are individually insured and therefore the Corporation does not record an allowance for credit losses related to these loans.

During the three and six months ended June 30, 2019, the Corporation sold $891 million and $1.8 billion of consumer real estate loans compared to $1.8 billion and $2.6 billion for the same periods in 2018.

Nonperforming Loans and Leases

The Corporation classifies junior-lien home equity loans as nonperforming when the first-lien loan becomes 90 days past due even if the junior-lien loan is performing. At June 30, 2019 and December 31, 2018, $139 million and $221 million of such junior-lien home equity loans were included in nonperforming loans.

The Corporation classifies consumer real estate loans that have been discharged in Chapter 7 bankruptcy and not reaffirmed by the borrower as troubled debt restructurings (TDRs), irrespective of payment history or delinquency status, even if the repayment terms for the loans have not been otherwise modified. The Corporation continues to have a lien on the underlying collateral. At June 30, 2019, nonperforming loans discharged in Chapter 7 bankruptcy with no change in repayment terms were $153 million of which $84 million were current on their contractual payments, while $55 million were 90 days or more past due. Of the contractually current nonperforming loans, 57 percent were discharged in Chapter 7 bankruptcy over 12 months ago, and 47 percent were discharged 24 months or more ago.

The table below presents the Corporation's nonperforming loans and leases including nonperforming TDRs, and loans accruing past due 90 days or more at June 30, 2019 and December 31, 2018. Nonperforming loans held-for-sale (LHFS) are excluded from nonperforming loans and leases as they are recorded at either fair value or the lower of cost or fair value. For more information on the criteria for classification as nonperforming, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Credit Quality

	Nonperforming Loans and Leases		Accruing Past Due 90 Days or More	
(Dollars in millions)	**June 30 2019**	December 31 2018	**June 30 2019**	December 31 2018
Consumer real estate				
Core portfolio				
Residential mortgage (1)	**$ 989**	$ 1,010	**$ 196**	$ 274
Home equity	**727**	955	**—**	—
Non-core portfolio				
Residential mortgage (1)	**755**	883	**1,168**	1,610
Home equity	**476**	938	**—**	—
Credit card and other consumer				
U.S. credit card	**n/a**	n/a	**941**	994
Direct/Indirect consumer	**80**	56	**28**	38
Total consumer	**3,027**	3,842	**2,333**	2,916
Commercial				
U.S. commercial	**820**	794	**132**	197
Non-U.S. commercial	**122**	80	**—**	—
Commercial real estate	**112**	156	**6**	4
Commercial lease financing	**55**	18	**15**	29
U.S. small business commercial	**51**	54	**87**	84
Total commercial	**1,160**	1,102	**240**	314
Total loans and leases	**$ 4,187**	$ 4,944	**$ 2,573**	$ 3,230

(1) Residential mortgage loans in the core and non-core portfolios accruing past due 90 days or more are fully-insured loans. At June 30, 2019 and December 31, 2018, residential mortgage includes $1.1 billion and $1.4 billion of loans on which interest has been curtailed by the Federal Housing Administration (FHA) and therefore are no longer accruing interest, although principal is still insured, and $345 million and $498 million of loans on which interest is still accruing.
n/a = not applicable

Credit Quality Indicators

The Corporation monitors credit quality within its Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments based on primary credit quality indicators. For more information on the portfolio segments and their related credit quality indicators, see *Note 1 – Summary of Significant Accounting Principles* and *Note 5 – Outstanding Loans and Leases* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

The following tables present certain credit quality indicators for the Corporation's Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments, by class of financing receivables, at June 30, 2019 and December 31, 2018.

Consumer Real Estate – Credit Quality Indicators (1)

	Core Residential Mortgage	**Non-core Residential Mortgage**	**Core Home Equity**	**Non-core Home Equity**	Core Residential Mortgage	Non-core Residential Mortgage	Core Home Equity	Non-core Home Equity
(Dollars in millions)	**June 30, 2019**				December 31, 2018			
Refreshed LTV								
Less than or equal to 90 percent	**$ 186,743**	**$ 8,952**	**$ 36,904**	**$ 5,241**	$ 173,911	$ 10,272	$ 39,246	$ 6,478
Greater than 90 percent but less than or equal to 100 percent	**3,069**	**435**	**313**	**526**	2,349	533	354	715
Greater than 100 percent	**991**	**431**	**360**	**790**	817	545	410	1,083
Fully-insured loans (2)	**16,454**	**2,854**			16,618	3,512		
Total consumer real estate	**$ 207,257**	**$ 12,672**	**$ 37,577**	**$ 6,557**	$ 193,695	$ 14,862	$ 40,010	$ 8,276
Refreshed FICO score								
Less than 620	**$ 2,047**	**$ 1,560**	**$ 951**	**$ 988**	$ 2,125	$ 1,974	$ 1,064	$ 1,503
Greater than or equal to 620 and less than 680	**4,614**	**1,395**	**1,741**	**1,189**	4,538	1,719	2,008	1,720
Greater than or equal to 680 and less than 740	**24,810**	**2,581**	**6,452**	**1,791**	23,841	3,042	7,008	2,188
Greater than or equal to 740	**159,332**	**4,282**	**28,433**	**2,589**	146,573	4,615	29,930	2,865
Fully-insured loans (2)	**16,454**	**2,854**			16,618	3,512		
Total consumer real estate	**$ 207,257**	**$ 12,672**	**$ 37,577**	**$ 6,557**	$ 193,695	$ 14,862	$ 40,010	$ 8,276

(1) Excludes $658 million and $682 million of loans accounted for under the fair value option at June 30, 2019 and December 31, 2018.
(2) Credit quality indicators are not reported for fully-insured loans as principal repayment is insured.

Credit Card and Other Consumer – Credit Quality Indicators

(Dollars in millions)	**U.S. Credit Card**	**Direct/Indirect Consumer**	**Other Consumer**	U.S. Credit Card	Direct/Indirect Consumer	Other Consumer
	June 30, 2019			December 31, 2018		
Refreshed FICO score						
Less than 620	**$ 4,758**	**$ 1,494**		$ 5,016	$ 1,719	
Greater than or equal to 620 and less than 680	**11,712**	**2,785**		12,415	3,124	
Greater than or equal to 680 and less than 740	**34,073**	**8,523**		35,781	8,921	
Greater than or equal to 740	**43,446**	**37,813**		45,126	36,709	
Other internal credit metrics (1, 2)		**40,235**	**$ 174**		40,693	$ 202
Total credit card and other consumer	**$ 93,989**	**$ 90,850**	**$ 174**	$ 98,338	$ 91,166	$ 202

(1) Other internal credit metrics may include delinquency status, geography or other factors.
(2) Direct/indirect consumer includes $39.4 billion and $39.9 billion of securities-based lending which is overcollateralized and therefore has minimal credit risk at June 30, 2019 and December 31, 2018.

Commercial – Credit Quality Indicators (1)

(Dollars in millions)	**U.S. Commercial**	**Non-U.S. Commercial**	**Commercial Real Estate**	**Commercial Lease Financing**	**U.S. Small Business Commercial (2)**
			June 30, 2019		
Risk ratings					
Pass rated	**$ 297,656**	**$ 103,054**	**$ 60,816**	**$ 20,011**	**$ 240**
Reservable criticized	**8,039**	**1,119**	**843**	**373**	**24**
Refreshed FICO score					
Less than 620					**279**
Greater than or equal to 620 and less than 680					**703**
Greater than or equal to 680 and less than 740					**2,167**
Greater than or equal to 740					**4,634**
Other internal credit metrics (3)					**6,903**
Total commercial	**$ 305,695**	**$ 104,173**	**$ 61,659**	**$ 20,384**	**$ 14,950**
			December 31, 2018		
Risk ratings					
Pass rated	$ 291,918	$ 97,916	$ 59,910	$ 22,168	$ 389
Reservable criticized	7,359	860	935	366	29
Refreshed FICO score					
Less than 620					264
Greater than or equal to 620 and less than 680					684
Greater than or equal to 680 and less than 740					2,072
Greater than or equal to 740					4,254
Other internal credit metrics (3)					6,873
Total commercial	$ 299,277	$ 98,776	$ 60,845	$ 22,534	$ 14,565

(1) Excludes $7.2 billion and $3.7 billion of loans accounted for under the fair value option at June 30, 2019 and December 31, 2018.
(2) At June 30, 2019 and December 31, 2018, U.S. small business commercial includes $757 million and $731 million of criticized business card and small business loans which are evaluated using refreshed FICO scores or internal credit metrics, including delinquency status, rather than risk ratings. Refreshed FICO score and other internal credit metrics are applicable only to the U.S. small business commercial portfolio.
(3) Other internal credit metrics may include delinquency status, application scores, geography or other factors. At both June 30, 2019 and December 31, 2018, 99 percent of the balances where internal credit metrics are used were current or less than 30 days past due.

Impaired Loans and Troubled Debt Restructurings

A loan is considered impaired when, based on current information, it is probable that the Corporation will be unable to collect all amounts due from the borrower in accordance with the contractual terms of the loan. For additional information, see *Note 1 – Summary of Significant Accounting Principles* and *Note 5 – Outstanding Loans and Leases* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Consumer Real Estate

Impaired consumer real estate loans within the Consumer Real Estate portfolio segment consist entirely of TDRs. Most modifications of consumer real estate loans meet the definition of TDRs when a binding offer is extended to a borrower. For more information on impaired consumer real estate loans, see *Note 5 – Outstanding Loans and Leases* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Consumer real estate loans of $758 million that have been discharged in Chapter 7 bankruptcy with no change in repayment terms and not reaffirmed by the borrower were included in TDRs at June 30, 2019, of which $153 million were classified as nonperforming and $310 million were loans fully insured by the FHA. For more information on loans discharged in Chapter 7 bankruptcy, see Nonperforming Loans and Leases in this Note.

At June 30, 2019 and December 31, 2018, remaining commitments to lend additional funds to debtors whose terms have been modified in a consumer real estate TDR were not significant. Consumer real estate foreclosed properties totaled $205 million and $244 million at June 30, 2019 and December 31, 2018. The carrying value of consumer real estate loans, including fully-insured loans, for which formal foreclosure proceedings were in process at June 30, 2019 was $2.0 billion. During the three and six months ended June 30, 2019, the Corporation reclassified $135 million and $299 million of consumer real estate loans to foreclosed properties or, for properties acquired upon foreclosure of certain government-guaranteed loans (principally FHA-insured loans), to other assets. The reclassifications represent non-cash investing activities and, accordingly, are not reflected in the Consolidated Statement of Cash Flows.

The following table provides the unpaid principal balance, carrying value and related allowance at June 30, 2019 and December 31, 2018 and the average carrying value and interest income recognized for the three and six months ended June 30, 2019 and 2018 for impaired loans in the Corporation's Consumer Real Estate portfolio segment. Certain impaired consumer real estate loans do not have a related allowance as the current valuation of these impaired loans exceeded the carrying value, which is net of previously recorded charge-offs.

Impaired Loans – Consumer Real Estate

(Dollars in millions)	**Unpaid Principal Balance**	**Carrying Value**	**Related Allowance**	Unpaid Principal Balance	Carrying Value	Related Allowance
	June 30, 2019			December 31, 2018		
With no recorded allowance						
Residential mortgage	**$ 4,917**	**$ 3,884**	**$ —**	$ 5,396	$ 4,268	$ —
Home equity	**2,111**	**1,146**	**—**	2,948	1,599	—
With an allowance recorded						
Residential mortgage	**$ 1,637**	**$ 1,605**	**$ 83**	$ 1,977	$ 1,929	$ 114
Home equity	**650**	**617**	**93**	812	760	144
Total						
Residential mortgage	**$ 6,554**	**$ 5,489**	**$ 83**	$ 7,373	$ 6,197	$ 114
Home equity	**2,761**	**1,763**	**93**	3,760	2,359	144

	Average Carrying Value	**Interest Income Recognized (1)**	Average Carrying Value	Interest Income Recognized (1)	**Average Carrying Value**	**Interest Income Recognized (1)**	Average Carrying Value	Interest Income Recognized (1)
	Three Months Ended June 30				**Six Months Ended June 30**			
	2019		2018		**2019**		2018	
With no recorded allowance								
Residential mortgage	**$ 3,949**	**$ 40**	$ 5,362	$ 50	**$ 4,064**	**$ 85**	$ 5,978	$ 115
Home equity	**1,468**	**23**	1,944	25	**1,523**	**48**	1,953	52
With an allowance recorded								
Residential mortgage	**$ 1,678**	**$ 16**	$ 2,482	$ 24	**$ 1,766**	**$ 34**	$ 2,597	$ 49
Home equity	**676**	**6**	891	6	**707**	**12**	889	12
Total								
Residential mortgage	**$ 5,627**	**$ 56**	$ 7,844	$ 74	**$ 5,830**	**$ 119**	$ 8,575	$ 164
Home equity	**2,144**	**29**	2,835	31	**2,230**	**60**	2,842	64

(1) Interest income recognized includes interest accrued and collected on the outstanding balances of accruing impaired loans as well as interest cash collections on nonaccruing impaired loans for which the principal is considered collectible.

The table below presents the June 30, 2019 and 2018 unpaid principal balance, carrying value, and average pre- and post-modification interest rates of consumer real estate loans that were modified in TDRs during the three and six months ended June 30, 2019 and 2018. The following Consumer Real Estate portfolio segment tables include loans that were initially classified as TDRs during the period and also loans that had previously been classified as TDRs and were modified again during the period.

Consumer Real Estate – TDRs Entered into During the Three and Six Months Ended June 30, 2019 and 2018

(Dollars in millions)	**Unpaid Principal Balance**	**Carrying Value**	**Pre-Modification Interest Rate**	**Post-Modification Interest Rate (1)**	**Unpaid Principal Balance**	**Carrying Value**	**Pre-Modification Interest Rate**	**Post-Modification Interest Rate (1)**
	Three Months Ended June 30, 2019				**Six Months Ended June 30, 2019**			
Residential mortgage	**$ 154**	**$ 125**	**4.28%**	**4.39%**	**$ 277**	**$ 224**	**4.27%**	**4.30%**
Home equity	**101**	**71**	**5.17**	**5.16**	**159**	**113**	**5.21**	**4.88**
Total	**$ 255**	**$ 196**	**4.63**	**4.69**	**$ 436**	**$ 337**	**4.61**	**4.51**
	Three Months Ended June 30, 2018				Six Months Ended June 30, 2018			
Residential mortgage	$ 276	$ 237	4.24%	3.94%	$ 628	$ 542	4.17%	3.93%
Home equity	194	152	4.43	4.42	392	297	4.38	4.06
Total	$ 470	$ 389	4.32	4.14	$ 1,020	$ 839	4.25	3.98

(1) The post-modification interest rate reflects the interest rate applicable only to permanently completed modifications, which exclude loans that are in a trial modification period.

The table below presents the June 30, 2019 and 2018 carrying value for consumer real estate loans that were modified in a TDR during the three and six months ended June 30, 2019 and 2018, by type of modification.

Consumer Real Estate – Modification Programs

	TDRs Entered into During the			
	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2019**	2018	**2019**	2018
Modifications under government programs (1)	**$ 10**	$ 17	**$ 18**	$ 35
Modifications under proprietary programs (1)	**22**	92	**75**	331
Loans discharged in Chapter 7 bankruptcy (2)	**30**	38	**52**	94
Trial modifications	**134**	242	**192**	379
Total modifications	**$ 196**	$ 389	**$ 337**	$ 839

(1) Includes other modifications such as term or payment extensions and repayment plans. During the three and six months ended June 30, 2018, this included $38 million and $196 million of modifications that met the definition of a TDR related to the 2017 hurricanes. These modifications had been written down to their net realizable value less costs to sell or were fully insured as of June 30, 2018.
(2) Includes loans discharged in Chapter 7 bankruptcy with no change in repayment terms that are classified as TDRs.

The table below presents the carrying value of consumer real estate loans that entered into payment default during the three and six months ended June 30, 2019 and 2018 that were modified in a TDR during the 12 months preceding payment default. A payment default for consumer real estate TDRs is recognized when a borrower has missed three monthly payments (not necessarily consecutively) since modification.

Consumer Real Estate – TDRs Entering Payment Default that were Modified During the Preceding 12 Months

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2019**	2018	**2019**	2018
Modifications under government programs	**$ 6**	$ 11	**$ 13**	$ 24
Modifications under proprietary programs	**20**	56	**49**	87
Loans discharged in Chapter 7 bankruptcy (1)	**9**	16	**18**	39
Trial modifications (2)	**11**	22	**27**	67
Total modifications	**$ 46**	$ 105	**$ 107**	$ 217

(1) Includes loans discharged in Chapter 7 bankruptcy with no change in repayment terms that are classified as TDRs.
(2) Includes trial modification offers to which the customer did not respond.

Credit Card and Other Consumer

Impaired loans within the Credit Card and Other Consumer portfolio segment consist entirely of loans that have been modified in TDRs. The Corporation seeks to assist customers that are experiencing financial difficulty by modifying loans while ensuring compliance with federal and local laws and guidelines. Credit card and other consumer loan modifications generally involve reducing the interest rate on the account, placing the customer on a fixed payment plan not exceeding 60 months and canceling the customer's available line of credit, all of which are considered TDRs. The Corporation makes loan modifications directly with borrowers for debt held only by the Corporation (internal programs). Additionally, the Corporation makes loan modifications for borrowers working with third-party renegotiation agencies that provide solutions to customers' entire unsecured debt structures (external programs). The Corporation classifies other secured consumer loans that have been discharged in Chapter 7 bankruptcy as TDRs which are written down to collateral value and placed on nonaccrual status no later than the time of discharge.

The following table provides the unpaid principal balance, carrying value and related allowance at June 30, 2019 and December 31, 2018 and the average carrying value for the three and six months ended June 30, 2019 and 2018 for TDRs within the Credit Card and Other Consumer portfolio segment.

Impaired Loans – Credit Card and Other Consumer

(Dollars in millions)	Unpaid Principal Balance	Carrying Value (1)	Related Allowance	Unpaid Principal Balance	Carrying Value (1)	Related Allowance
	June 30, 2019			December 31, 2018		
With no recorded allowance						
Direct/Indirect consumer	**$ 71**	**$ 33**	**$ —**	$ 72	$ 33	$ —
With an allowance recorded						
U.S. credit card	**$ 580**	**$ 594**	**$ 174**	$ 522	$ 533	$ 154
Total						
U.S. credit card	**$ 580**	**$ 594**	**$ 174**	$ 522	$ 533	$ 154
Direct/Indirect consumer	**71**	**33**	**—**	72	33	—

	Average Carrying Value (2)			
	Three Months Ended June 30		**Six Months Ended June 30**	
	2019	**2018**	**2019**	**2018**
With no recorded allowance				
Direct/Indirect consumer	**$ 33**	$ 29	**$ 33**	$ 29
With an allowance recorded				
U.S. credit card	**$ 582**	$ 480	**$ 565**	$ 473
Direct/Indirect consumer	**—**	1	**—**	1
Total				
U.S. credit card	**$ 582**	$ 480	**$ 565**	$ 473
Direct/Indirect consumer	**33**	30	**33**	30

(1) Includes accrued interest and fees.
(2) The related interest income recognized, which includes interest accrued and collected on the outstanding balances of accruing impaired loans as well as interest cash collections on nonaccruing impaired loans for which the principal was considered collectible, was not significant for the three and six months ended June 30, 2019 and 2018.

The table below provides information on the Corporation's primary modification programs for the Credit Card and Other Consumer TDR portfolio at June 30, 2019 and December 31, 2018.

Credit Card and Other Consumer – TDRs by Program Type

(Dollars in millions)	U.S. Credit Card		Direct/Indirect Consumer		Total TDRs by Program Type	
	June 30 2019	December 31 2018	**June 30 2019**	December 31 2018	**June 30 2019**	December 31 2018
Internal programs	**$ 302**	$ 259	**$ —**	$ —	**$ 302**	$ 259
External programs	**291**	273	**—**	—	**291**	273
Other	**1**	1	**33**	33	**34**	34
Total	**$ 594**	$ 533	**$ 33**	$ 33	**$ 627**	$ 566
Percent of balances current or less than 30 days past due	**85%**	85%	**85%**	81%	**85%**	85%

The table below provides information on the Corporation's Credit Card and Other Consumer TDR portfolio including the June 30, 2019 and 2018 unpaid principal balance, carrying value, and average pre- and post-modification interest rates of loans that were modified in TDRs during the three and six months ended June 30, 2019 and 2018.

Credit Card and Other Consumer – TDRs Entered into During the Three and Six Months Ended June 30, 2019 and 2018

(Dollars in millions)	Unpaid Principal Balance	Carrying Value (1)	Pre-Modification Interest Rate	Post-Modification Interest Rate	Unpaid Principal Balance	Carrying Value (1)	Pre-Modification Interest Rate	Post-Modification Interest Rate
	Three Months Ended June 30, 2019				**Six Months Ended June 30, 2019**			
U.S. credit card	**$ 95**	**$ 102**	**19.84%**	**5.38%**	**$ 184**	**$ 195**	**19.82%**	**5.32%**
Direct/Indirect consumer	**19**	**11**	**5.19**	**5.16**	**27**	**15**	**5.18**	**5.16**
Total	**$ 114**	**$ 113**	**18.45**	**5.36**	**$ 211**	**$ 210**	**18.80**	**5.30**
	Three Months Ended June 30, 2018				Six Months Ended June 30, 2018			
U.S. credit card	$ 72	$ 78	19.18%	5.29%	$ 140	$ 149	19.06%	5.26%
Direct/Indirect consumer	19	11	4.43	4.43	28	16	4.73	4.56
Total	$ 91	$ 89	17.29	5.18	$ 168	$ 165	17.63	5.19

(1) Includes accrued interest and fees.

Credit card and other consumer loans are deemed to be in payment default during the quarter in which a borrower misses the second of two consecutive payments. Payment defaults are one of the factors considered when projecting future cash flows in the calculation of the allowance for loan and lease losses for impaired credit card and other consumer loans. Based on historical experience, the Corporation estimates that 14 percent of new U.S. credit card TDRs and 14 percent of new direct/indirect consumer TDRs may be in payment default within 12 months after modification.

Commercial Loans

Impaired commercial loans include nonperforming loans and leases and TDRs (both performing and nonperforming). For more information on impaired commercial loans, see *Note 5 – Outstanding Loans and Leases* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

At June 30, 2019 and December 31, 2018, remaining commitments to lend additional funds to debtors whose terms have been modified in a commercial loan TDR were $302 million and $297 million. The balance of commercial TDRs in payment default was not significant at June 30, 2019 and December 31, 2018.

The table below provides information on impaired loans in the Commercial loan portfolio segment including the unpaid principal balance, carrying value and related allowance at June 30, 2019 and December 31, 2018, and the average carrying value for the three and six months ended June 30, 2019 and 2018. Certain impaired commercial loans do not have a related allowance because the valuation of these impaired loans exceeded the carrying value, which is net of previously recorded charge-offs.

Impaired Loans – Commercial

(Dollars in millions)	Unpaid Principal Balance	Carrying Value	Related Allowance	Unpaid Principal Balance	Carrying Value	Related Allowance
	June 30, 2019			December 31, 2018		
With no recorded allowance						
U.S. commercial	$ 630	$ 617	$ —	$ 638	$ 616	$ —
Non-U.S. commercial	90	90	—	93	93	—
Commercial real estate	107	107	—	—	—	—
With an allowance recorded						
U.S. commercial	$ 1,287	$ 1,098	$ 106	$ 1,437	$ 1,270	$ 121
Non-U.S. commercial	249	249	30	155	149	30
Commercial real estate	152	75	4	247	162	16
Commercial lease financing	104	88	2	71	71	—
U.S. small business commercial (1)	81	73	26	83	72	29
Total						
U.S. commercial	$ 1,917	$ 1,715	$ 106	$ 2,075	$ 1,886	$ 121
Non-U.S. commercial	339	339	30	248	242	30
Commercial real estate	259	182	4	247	162	16
Commercial lease financing	104	88	2	71	71	—
U.S. small business commercial (1)	81	73	26	83	72	29

	Average Carrying Value (2)			
	Three Months Ended June 30		Six Months Ended June 30	
	2019	2018	2019	2018
With no recorded allowance				
U.S. commercial	$ 684	$ 684	$ 684	$ 678
Non-U.S. commercial	92	61	92	61
Commercial real estate	167	81	140	75
Commercial lease financing	—	7	—	6
With an allowance recorded				
U.S. commercial	$ 1,171	$ 1,221	$ 1,214	$ 1,163
Non-U.S. commercial	244	386	220	416
Commercial real estate	77	8	99	22
Commercial lease financing	88	25	83	18
U.S. small business commercial (1)	75	73	74	74
Total				
U.S. commercial	$ 1,855	$ 1,905	$ 1,898	$ 1,841
Non-U.S. commercial	336	447	312	477
Commercial real estate	244	89	239	97
Commercial lease financing	88	32	83	24
U.S. small business commercial (1)	75	73	74	74

(1) Includes U.S. small business commercial renegotiated TDR loans and related allowance.
(2) The related interest income recognized, which includes interest accrued and collected on the outstanding balances of accruing impaired loans as well as interest cash collections on nonaccruing impaired loans for which the principal was considered collectible, was not significant for the three and six months ended June 30, 2019 and 2018.

Loans Held-for-sale

The Corporation had LHFS of $5.4 billion and $10.4 billion at June 30, 2019 and December 31, 2018. Cash and non-cash proceeds from sales and paydowns of loans originally classified as LHFS were $14.4 billion and $17.3 billion for the six months ended June 30, 2019 and 2018. Cash used for originations and purchases of LHFS totaled $9.2 billion and $11.7 billion for the six months ended June 30, 2019 and 2018.

NOTE 6 Allowance for Credit Losses

The table below summarizes the changes in the allowance for credit losses by portfolio segment for the three and six months ended June 30, 2019 and 2018.

(Dollars in millions)	Consumer Real Estate	Credit Card and Other Consumer	Commercial	Total
	Three Months Ended June 30, 2019			
Allowance for loan and lease losses, April 1	**$ 822**	**$ 3,934**	**$ 4,821**	**$ 9,577**
Loans and leases charged off	**(153)**	**(1,075)**	**(233)**	**(1,461)**
Recoveries of loans and leases previously charged off	**305**	**232**	**37**	**574**
Net charge-offs	**152**	**(843)**	**(196)**	**(887)**
Provision for loan and lease losses	**(239)**	**879**	**213**	**853**
Other (1)	**(16)**	**—**	**—**	**(16)**
Allowance for loan and lease losses, June 30	**719**	**3,970**	**4,838**	**9,527**
Reserve for unfunded lending commitments, April 1	**—**	**—**	**802**	**802**
Provision for unfunded lending commitments	**—**	**—**	**4**	**4**
Reserve for unfunded lending commitments, June 30	**—**	**—**	**806**	**806**
Allowance for credit losses, June 30	**$ 719**	**$ 3,970**	**$ 5,644**	**$ 10,333**
	Three Months Ended June 30, 2018			
Allowance for loan and lease losses, April 1	$ 1,530	$ 3,720	$ 5,010	$ 10,260
Loans and leases charged off	(137)	(1,033)	(208)	(1,378)
Recoveries of loans and leases previously charged off	130	210	42	382
Net charge-offs	(7)	(823)	(166)	(996)
Provision for loan and lease losses	(121)	878	65	822
Other (1)	(36)	(1)	1	(36)
Allowance for loan and lease losses, June 30	1,366	3,774	4,910	10,050
Reserve for unfunded lending commitments, April 1	—	—	782	782
Provision for unfunded lending commitments	—	—	5	5
Reserve for unfunded lending commitments, June 30	—	—	787	787
Allowance for credit losses, June 30	$ 1,366	$ 3,774	$ 5,697	$ 10,837
(Dollars in millions)	**Six Months Ended June 30, 2019**			
Allowance for loan and lease losses, January 1	**$ 928**	**$ 3,874**	**$ 4,799**	**$ 9,601**
Loans and leases charged off	**(256)**	**(2,132)**	**(410)**	**(2,798)**
Recoveries of loans and leases previously charged off	**413**	**449**	**58**	**920**
Net charge-offs	**157**	**(1,683)**	**(352)**	**(1,878)**
Provision for loan and lease losses	**(309)**	**1,779**	**391**	**1,861**
Other (1)	**(57)**	**—**	**—**	**(57)**
Allowance for loan and lease losses, June 30	**719**	**3,970**	**4,838**	**9,527**
Reserve for unfunded lending commitments, January 1	**—**	**—**	**797**	**797**
Provision for unfunded lending commitments	**—**	**—**	**9**	**9**
Reserve for unfunded lending commitments, June 30	**—**	**—**	**806**	**806**
Allowance for credit losses, June 30	**$ 719**	**$ 3,970**	**$ 5,644**	**$ 10,333**
	Six Months Ended June 30, 2018			
Allowance for loan and lease losses, January 1	$ 1,720	$ 3,663	$ 5,010	$ 10,393
Loans and leases charged off	(311)	(2,039)	(324)	(2,674)
Recoveries of loans and leases previously charged off	277	413	77	767
Net charge-offs	(34)	(1,626)	(247)	(1,907)
Provision for loan and lease losses	(249)	1,754	146	1,651
Other (1)	(71)	(17)	1	(87)
Allowance for loan and lease losses, June 30	1,366	3,774	4,910	10,050
Reserve for unfunded lending commitments, January 1	—	—	777	777
Provision for unfunded lending commitments	—	—	10	10
Reserve for unfunded lending commitments, June 30	—	—	787	787
Allowance for credit losses, June 30	$ 1,366	$ 3,774	$ 5,697	$ 10,837

(1) Primarily represents write-offs of purchased credit-impaired loans, the net impact of portfolio sales, consolidations and deconsolidations, foreign currency translation adjustments, transfers to held for sale, and certain other reclassifications.

The table below presents the allowance and the carrying value of outstanding loans and leases by portfolio segment at June 30, 2019 and December 31, 2018.

(Dollars in millions)	Consumer Real Estate	Credit Card and Other Consumer	Commercial	Total
	June 30, 2019			
Impaired loans and troubled debt restructurings (1)				
Allowance for loan and lease losses	**$ 176**	**$ 174**	**$ 168**	**$ 518**
Carrying value (2)	**7,252**	**627**	**2,397**	**10,276**
Allowance as a percentage of carrying value	**2.43%**	**27.75%**	**7.01%**	**5.04%**
Loans collectively evaluated for impairment				
Allowance for loan and lease losses	**$ 543**	**$ 3,796**	**$ 4,670**	**$ 9,009**
Carrying value (2, 3)	**256,811**	**184,386**	**504,464**	**945,661**
Allowance as a percentage of carrying value (3)	**0.21%**	**2.06%**	**0.93%**	**0.95%**
Total				
Allowance for loan and lease losses	**$ 719**	**$ 3,970**	**$ 4,838**	**$ 9,527**
Carrying value (2, 3)	**264,063**	**185,013**	**506,861**	**955,937**
Allowance as a percentage of carrying value (3)	**0.27%**	**2.15%**	**0.95%**	**1.00%**
	December 31, 2018			
Impaired loans and troubled debt restructurings (1)				
Allowance for loan and lease losses	$ 258	$ 154	$ 196	$ 608
Carrying value (2)	8,556	566	2,433	11,555
Allowance as a percentage of carrying value	3.02%	27.21%	8.06%	5.26%
Loans collectively evaluated for impairment				
Allowance for loan and lease losses	$ 670	$ 3,720	$ 4,603	$ 8,993
Carrying value (2, 3)	248,287	189,140	493,564	930,991
Allowance as a percentage of carrying value (3)	0.27%	1.97%	0.93%	0.97%
Total				
Allowance for loan and lease losses	$ 928	$ 3,874	$ 4,799	$ 9,601
Carrying value (2, 3)	256,843	189,706	495,997	942,546
Allowance as a percentage of carrying value (3)	0.36%	2.04%	0.97%	1.02%

(1) Impaired loans include nonperforming commercial loans and leases, as well as all TDRs, including both commercial and consumer TDRs. Impaired loans exclude nonperforming consumer loans unless they are TDRs, and all consumer and commercial loans accounted for under the fair value option.
(2) Amounts are presented gross of the allowance for loan and lease losses.
(3) Outstanding loan and lease balances and ratios do not include loans accounted for under the fair value option of $7.9 billion and $4.3 billion at June 30, 2019 and December 31, 2018.

NOTE 7 Securitizations and Other Variable Interest Entities

The Corporation utilizes VIEs in the ordinary course of business to support its own and its customers' financing and investing needs. The tables in this Note present the assets, liabilities and maximum loss exposure of consolidated and unconsolidated VIEs at June 30, 2019 and December 31, 2018 in situations where the Corporation has continuing involvement with transferred assets or if the Corporation otherwise has a variable interest in the VIE. For more information on the Corporation's use of VIEs and related maximum loss exposure, see *Note 1 – Summary of Significant Accounting Principles* and *Note 7 – Securitizations and Other Variable Interest Entities* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

The Corporation invests in ABS issued by third-party VIEs with which it has no other form of involvement and enters into certain commercial lending arrangements that may also incorporate the use of VIEs, for example to hold collateral. These securities and loans are included in *Note 4 – Securities* or *Note 5 – Outstanding Loans and Leases*.

The Corporation did not provide financial support to consolidated or unconsolidated VIEs during the six months ended June 30, 2019 or the year ended December 31, 2018 that it was not previously contractually required to provide, nor does it intend to do so.

The Corporation had liquidity commitments, including written put options and collateral value guarantees, with certain unconsolidated VIEs of $355 million and $218 million at June 30, 2019 and December 31, 2018.

First-lien Mortgage Securitizations

As part of its mortgage banking activities, the Corporation securitizes a portion of the first-lien residential mortgage loans it originates or purchases from third parties. Except as described in *Note 11 – Commitments and Contingencies*, the Corporation does not provide guarantees or recourse to the securitization trusts other than standard representations and warranties.

The following table summarizes select information related to first-lien mortgage securitizations for the three and six months ended June 30, 2019 and 2018.

First-lien Mortgage Securitizations

(Dollars in millions)	Residential Mortgage - Agency: Three Months Ended June 30 2019	2018	Six Months Ended June 30 2019	2018	Commercial Mortgage: Three Months Ended June 30 2019	2018	Six Months Ended June 30 2019	2018
Proceeds from loan sales (1)	$ 2,206	$ 1,496	$ 3,302	$ 3,151	$ 2,194	$ 1,741	$ 3,181	$ 2,279
Gains on securitizations (2)	8	23	15	41	28	21	45	39
Repurchases from securitization trusts (3)	242	357	486	858	—	—	—	—

(1) The Corporation transfers residential mortgage loans to securitizations sponsored primarily by the GSEs or Government National Mortgage Association (GNMA) in the normal course of business and primarily receives RMBS in exchange. Substantially all of these securities are classified as Level 2 within the fair value hierarchy and are sold shortly after receipt.
(2) A majority of the first-lien residential mortgage loans securitized are initially classified as LHFS and accounted for under the fair value option. Gains recognized on these LHFS prior to securitization, which totaled $11 million and $19 million, net of hedges, during the three and six months ended June 30, 2019 compared to $21 million and $45 million for the same periods in 2018, are not included in the table above.
(3) The Corporation may have the option to repurchase delinquent loans out of securitization trusts, which reduces the amount of servicing advances it is required to make. The Corporation may also repurchase loans from securitization trusts to perform modifications. Repurchased loans include FHA-insured mortgages collateralizing GNMA securities.

The Corporation recognizes consumer MSRs from the sale or securitization of consumer real estate loans. The unpaid principal balance of loans serviced for investors, including residential mortgage and home equity loans, totaled $210.5 billion and $249.5 billion at June 30, 2019 and 2018. Servicing fee and ancillary fee income on serviced loans was $144 million and $292 million during the three and six months ended June 30, 2019 compared to $181 million and $378 million for the same periods in 2018. Servicing advances on serviced loans, including loans serviced for others and loans held for investment, were $2.8 billion and $3.3 billion at June 30, 2019 and December 31, 2018. For more information on MSRs, see *Note 15 – Fair Value Measurements*.

During the three and six months ended June 30, 2019, the Corporation deconsolidated agency residential mortgage securitization trusts with total assets of $430 million and $1.1 billion. There were no significant deconsolidations during the three and six months ended June 30, 2018.

The following table summarizes select information related to first-lien mortgage securitization trusts in which the Corporation held a variable interest at June 30, 2019 and December 31, 2018.

First-lien Mortgage VIEs

	Residential Mortgage									
			Non-agency							
	Agency		Prime		Subprime		Alt-A		Commercial Mortgage	
(Dollars in millions)	June 30 2019	December 31 2018	June 30 2019	December 31 2018	June 30 2019	December 31 2018	June 30 2019	December 31 2018	June 30 2019	December 31 2018
Unconsolidated VIEs										
Maximum loss exposure (1)	$ 15,498	$ 16,011	$ 394	$ 448	$ 1,897	$ 1,897	$ 142	$ 217	$ 826	$ 767
On-balance sheet assets										
Senior securities:										
Trading account assets	$ 736	$ 460	$ 21	$ 30	$ 72	$ 36	$ 21	$ 90	$ 41	$ 97
Debt securities carried at fair value	8,930	9,381	217	246	1,441	1,470	119	125	—	—
Held-to-maturity securities	5,832	6,170	—	—	—	—	—	—	609	528
All other assets	—	—	3	3	37	37	2	2	49	40
Total retained positions	$ 15,498	$ 16,011	$ 241	$ 279	$ 1,550	$ 1,543	$ 142	$ 217	$ 699	$ 665
Principal balance outstanding (2)	$ 174,853	$ 187,512	$ 8,084	$ 8,954	$ 8,058	$ 8,719	$ 21,676	$ 23,467	$ 42,785	$ 43,593
Consolidated VIEs										
Maximum loss exposure (1)	$ 11,685	$ 13,296	$ 6	$ 7	$ —	$ —	$ —	$ —	$ —	$ 76
On-balance sheet assets										
Trading account assets	$ 539	$ 1,318	$ 135	$ 150	$ —	$ —	$ —	$ —	$ —	$ 76
Loans and leases, net	10,977	11,858	—	—	—	—	—	—	—	—
All other assets	170	143	—	—	—	—	—	—	—	—
Total assets	$ 11,686	$ 13,319	$ 135	$ 150	$ —	$ —	$ —	$ —	$ —	$ 76
Total liabilities	$ 3	$ 26	$ 129	$ 143	$ —	$ —	$ —	$ —	$ —	$ —

(1) Maximum loss exposure includes obligations under loss-sharing reinsurance and other arrangements for non-agency residential mortgage and commercial mortgage securitizations, but excludes the reserve for representations and warranties obligations and corporate guarantees and also excludes servicing advances and other servicing rights and obligations. For additional information, see *Note 11 – Commitments and Contingencies* and *Note 15 – Fair Value Measurements*.
(2) Principal balance outstanding includes loans where the Corporation was the transferor to securitization VIEs with which it has continuing involvement, which may include servicing the loans.

Other Asset-backed Securitizations

The following table summarizes select information related to home equity, credit card and other asset-backed VIEs in which the Corporation held a variable interest at June 30, 2019 and December 31, 2018.

Home Equity Loan, Credit Card and Other Asset-backed VIEs

(Dollars in millions)	Home Equity (1) June 30 2019	Home Equity (1) December 31 2018	Credit Card (2, 3) June 30 2019	Credit Card (2, 3) December 31 2018	Resecuritization Trusts June 30 2019	Resecuritization Trusts December 31 2018	Municipal Bond Trusts June 30 2019	Municipal Bond Trusts December 31 2018
Unconsolidated VIEs								
Maximum loss exposure	**$ 707**	$ 908	**$ —**	$ —	**$ 7,862**	$ 7,647	**$ 2,960**	$ 2,150
On-balance sheet assets								
Senior securities (4):								
Trading account assets	**$ —**	$ —	**$ —**	$ —	**$ 2,008**	$ 1,419	**$ —**	$ 26
Debt securities carried at fair value	**24**	27	**—**	—	**1,261**	1,337	**—**	—
Held-to-maturity securities	**—**	—	**—**	—	**4,593**	4,891	**—**	—
Total retained positions	**$ 24**	$ 27	**$ —**	$ —	**$ 7,862**	$ 7,647	**$ —**	$ 26
Total assets of VIEs (5)	**$ 1,607**	$ 1,813	**$ —**	$ —	**$ 16,999**	$ 16,949	**$ 3,657**	$ 2,829
Consolidated VIEs								
Maximum loss exposure	**$ 73**	$ 85	**$ 19,803**	$ 18,800	**$ 129**	$ 128	**$ 2,507**	$ 1,540
On-balance sheet assets								
Trading account assets	**$ —**	$ —	**$ —**	$ —	**$ 149**	$ 366	**$ 2,462**	$ 1,553
Loans and leases	**113**	133	**27,703**	29,906	**—**	—	**—**	—
Allowance for loan and lease losses	**(3)**	(5)	**(874)**	(901)	**—**	—	**—**	—
All other assets	**4**	4	**119**	136	**—**	—	**45**	1
Total assets	**$ 114**	$ 132	**$ 26,948**	$ 29,141	**$ 149**	$ 366	**$ 2,507**	$ 1,554
On-balance sheet liabilities								
Short-term borrowings	**$ —**	$ —	**$ —**	$ —	**$ —**	$ —	**$ 1,845**	$ 742
Long-term debt	**47**	55	**7,122**	10,321	**20**	238	**—**	12
All other liabilities	**—**	—	**23**	20	**—**	—	**—**	—
Total liabilities	**$ 47**	$ 55	**$ 7,145**	$ 10,341	**$ 20**	$ 238	**$ 1,845**	$ 754

(1) For unconsolidated home equity loan VIEs, the maximum loss exposure includes outstanding trust certificates issued by trusts in rapid amortization, net of recorded reserves. For both consolidated and unconsolidated home equity loan VIEs, the maximum loss exposure excludes the reserve for representations and warranties obligations and corporate guarantees. For additional information, see *Note 11 – Commitments and Contingencies*.
(2) At June 30, 2019 and December 31, 2018, loans and leases in the consolidated credit card trust included $12.6 billion and $11.0 billion of seller's interest.
(3) At June 30, 2019 and December 31, 2018, all other assets in the consolidated credit card trust included certain short-term investments and unbilled accrued interest and fees.
(4) The retained senior securities were valued using quoted market prices or observable market inputs (Level 2 of the fair value hierarchy).
(5) Total assets of VIEs includes loans the Corporation transferred with which it has continuing involvement, which may include servicing the loan.

Home Equity Loans

The Corporation retains interests, primarily senior securities, in home equity securitization trusts to which it transferred home equity loans. In addition, the Corporation may be obligated to provide subordinate funding to the trusts during a rapid amortization event. This obligation is included in the maximum loss exposure in the table above. The charges that will ultimately be recorded as a result of the rapid amortization events depend on the undrawn portion of the home equity lines of credit, performance of the loans, the amount of subsequent draws and the timing of related cash flows.

Credit Card Securitizations

The Corporation securitizes originated and purchased credit card loans. The Corporation's continuing involvement with the securitization trust includes servicing the receivables, retaining an undivided interest (seller's interest) in the receivables, and holding certain retained interests including subordinate interests in accrued interest and fees on the securitized receivables and cash reserve accounts.

During the six months ended June 30, 2018, there were $2.8 billion of new senior debt securities issued to third-party investors from the credit card securitization trust. None were issued in the six months ended June 30, 2019.

At June 30, 2019 and December 31, 2018, the Corporation held subordinate securities issued by the credit card securitization trust with a notional principal amount of $7.2 billion and $7.7 billion. These securities serve as a form of credit enhancement to the senior debt securities and have a stated interest rate of zero percent. During the six months ended June 30, 2018, there were $448 million of these subordinate securities issued. None were issued in the six months ended June 30, 2019.

Resecuritization Trusts

The Corporation transfers securities, typically MBS, into resecuritization VIEs at the request of customers seeking securities with specific characteristics. Generally, there are no significant ongoing activities performed in a resecuritization trust, and no single investor has the unilateral ability to liquidate the trust.

The Corporation resecuritized $4.1 billion and $8.5 billion of securities during the three and six months ended June 30, 2019 compared to $6.8 billion and $13.6 billion for the same periods in 2018. Securities transferred into resecuritization VIEs were measured at fair value with changes in fair value recorded in trading account income prior to the resecuritization and, accordingly, no gain or loss on sale was recorded. Resecuritization proceeds included securities with an initial fair value of $1.5 billion and $2.8 billion during the three and six months ended June 30, 2019 compared to $910 million and $2.2 billion for the same periods in 2018. Substantially all of the other securities received as resecuritization proceeds were classified as trading securities and were categorized as Level 2 within the fair value hierarchy.

Municipal Bond Trusts

The Corporation administers municipal bond trusts that hold highly-rated, long-term, fixed-rate municipal bonds. The trusts obtain financing by issuing floating-rate trust certificates that reprice on a weekly or other short-term basis to third-party investors.

The Corporation's liquidity commitments to unconsolidated municipal bond trusts, including those for which the Corporation was transferor, totaled $3.0 billion and $2.1 billion at June 30, 2019 and December 31, 2018. The weighted-average remaining life of bonds held in the trusts at June 30, 2019 was 11.4 years. There were no material write-downs or downgrades of assets or issuers during the six months ended June 30, 2019 and 2018.

Other Variable Interest Entities

The table below summarizes select information related to other VIEs in which the Corporation held a variable interest at June 30, 2019 and December 31, 2018.

Other VIEs

(Dollars in millions)	Consolidated	Unconsolidated	Total	Consolidated	Unconsolidated	Total
	June 30, 2019			December 31, 2018		
Maximum loss exposure	**$ 4,036**	**$ 23,722**	**$ 27,758**	$ 4,177	$ 24,498	$ 28,675
On-balance sheet assets						
Trading account assets	**$ 2,184**	**$ 899**	**$ 3,083**	$ 2,335	$ 860	$ 3,195
Debt securities carried at fair value	**—**	**80**	**80**	—	84	84
Loans and leases	**1,880**	**3,919**	**5,799**	1,949	3,940	5,889
Allowance for loan and lease losses	**(2)**	**(40)**	**(42)**	(2)	(30)	(32)
All other assets	**49**	**18,536**	**18,585**	53	18,885	18,938
Total	**$ 4,111**	**$ 23,394**	**$ 27,505**	$ 4,335	$ 23,739	$ 28,074
On-balance sheet liabilities						
Long-term debt	**$ 74**	**$ —**	**$ 74**	$ 152	$ —	$ 152
All other liabilities	**2**	**4,133**	**4,135**	7	4,231	4,238
Total	**$ 76**	**$ 4,133**	**$ 4,209**	$ 159	$ 4,231	$ 4,390
Total assets of VIEs	**$ 4,111**	**$ 93,075**	**$ 97,186**	$ 4,335	$ 94,746	$ 99,081

Customer VIEs

Customer VIEs include credit-linked, equity-linked and commodity-linked note VIEs, repackaging VIEs and asset acquisition VIEs, which are typically created on behalf of customers who wish to obtain market or credit exposure to a specific company, index, commodity or financial instrument.

The Corporation's maximum loss exposure to consolidated and unconsolidated customer VIEs totaled $2.1 billion at both June 30, 2019 and December 31, 2018, including the notional amount of derivatives to which the Corporation is a counterparty, net of losses previously recorded, and the Corporation's investment, if any, in securities issued by the VIEs.

Collateralized Debt Obligation VIEs

The Corporation receives fees for structuring CDO VIEs, which hold diversified pools of fixed-income securities, typically corporate debt or ABS, which the CDO VIEs fund by issuing multiple tranches of debt and equity securities. CDOs are generally managed by third-party portfolio managers. The Corporation typically transfers assets to these CDOs, holds securities issued by the CDOs and may be a derivative counterparty to the CDOs. The Corporation's maximum loss exposure to consolidated and unconsolidated CDOs totaled $292 million and $421 million at June 30, 2019 and December 31, 2018.

Investment VIEs

The Corporation sponsors, invests in or provides financing, which may be in connection with the sale of assets, to a variety of investment VIEs that hold loans, real estate, debt securities or other financial instruments and are designed to provide the desired investment profile to investors or the Corporation. At June 30, 2019 and December 31, 2018, the Corporation's consolidated investment VIEs had total assets of $158 million and $270 million. The Corporation also held investments in unconsolidated VIEs with total assets of $36.2 billion and $37.7 billion at June 30, 2019 and December 31, 2018. The Corporation's maximum loss exposure associated with both consolidated and unconsolidated investment VIEs totaled $6.6 billion and $7.2 billion at June 30, 2019 and December 31, 2018 comprised primarily of on-balance sheet assets less non-recourse liabilities.

Leveraged Lease Trusts

The Corporation's net investment in consolidated leveraged lease trusts totaled $1.8 billion at both June 30, 2019 and December 31, 2018. The trusts hold long-lived equipment such as rail cars, power generation and distribution equipment, and commercial aircraft. The Corporation structures the trusts and holds a significant residual interest. The net investment represents the Corporation's maximum loss exposure to the trusts in the unlikely event that the leveraged lease investments become worthless. Debt issued by the leveraged lease trusts is non-recourse to the Corporation.

Tax Credit VIEs

The Corporation holds investments in unconsolidated limited partnerships and similar entities that construct, own and operate affordable housing, wind and solar projects. An unrelated third party is typically the general partner or managing member and has control over the significant activities of the VIE. The Corporation earns a return primarily through the receipt of tax credits allocated to the projects. The maximum loss exposure included in the Other VIEs table was $16.8 billion and $17.0 billion at June 30, 2019 and December 31, 2018. The Corporation's risk of loss is generally mitigated by policies requiring that the project qualify for the expected tax credits prior to making its investment.

The Corporation's investments in affordable housing partnerships, which are reported in other assets on the Consolidated Balance Sheet, totaled $8.9 billion, including unfunded commitments to provide capital contributions of $3.8 billion at both June 30, 2019 and December 31, 2018. The unfunded commitments are expected to be paid over the next five years. The Corporation recognized tax credits and other tax benefits from investments in affordable housing partnerships of $291 million and $571 million and reported pretax losses in other income of $234 million and $482 million for the three and six months ended June 30, 2019. For the same periods in 2018, the Corporation recognized tax credits and other tax benefits of $237 million and $485 million and pretax losses in other income of $217 million and $425 million. Tax credits are recognized as part of the Corporation's annual effective tax rate used to determine tax expense in a given quarter. Accordingly, the portion of a year's expected tax benefits recognized in any given quarter may differ from 25 percent. The Corporation may from time to time be asked to invest additional amounts to support a troubled affordable housing project. Such additional investments have not been and are not expected to be significant.

NOTE 8 Goodwill and Intangible Assets

Goodwill

The table below presents goodwill balances by business segment and *All Other* at June 30, 2019 and December 31, 2018. The reporting units utilized for goodwill impairment testing are the operating segments or one level below.

Goodwill

(Dollars in millions)	June 30 2019	December 31 2018
Consumer Banking	**$ 30,123**	$ 30,123
Global Wealth & Investment Management	**9,677**	9,677
Global Banking	**23,923**	23,923
Global Markets	**5,182**	5,182
All Other	**46**	46
Total goodwill	**$ 68,951**	$ 68,951

The Corporation completed its annual goodwill impairment test as of June 30, 2019 for all reporting units that had goodwill. For this goodwill impairment test, the Corporation used qualitative assessments. The Corporation performed this test by assessing qualitative factors to determine whether it was more likely than not that the fair value of each reporting unit was less than its respective carrying value. Factors considered in the qualitative assessments include, among other things, macroeconomic conditions, industry and market considerations, financial performance of the respective reporting unit and other relevant entity- and reporting-unit specific considerations. If based on the results of the qualitative assessment, the Corporation were to determine that it is more likely than not that the fair value of a reporting unit is less than its carrying value, a quantitative assessment would be conducted. Based on the results of the annual goodwill impairment test, the Corporation determined there was no impairment. For more information, see *Note 8 – Goodwill and Intangible Assets* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

For additional information regarding the nature of and accounting for the Corporation's goodwill impairment testing, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Intangible Assets

At June 30, 2019 and December 31, 2018 , the net carrying value of intangible assets was $1.7 billion and $1.8 billion. Both period ends included $1.6 billion of intangible assets associated with trade names, substantially all of which had an indefinite life and, accordingly, is not being amortized. Amortization of intangibles expense was $29 million and $55 million for the three and six months ended June 30, 2019 compared to $135 million and $269 million for the same periods in 2018.

NOTE 9 Leases

The Corporation enters into both lessor and lessee arrangements. For more information on lease accounting, see *Note 1 – Summary of Significant Accounting Principles* and on lease financing receivables, see *Note 5 – Outstanding Loans and Leases*.

Lessor Arrangements

The Corporation's lessor arrangements primarily consist of operating, sales-type and direct financing leases for equipment. Lease agreements may include options to renew and for the lessee to purchase the leased equipment at the end of the lease term.

At June 30, 2019, the total net investment in sales-type and direct financing leases was $22.0 billion, comprised of $19.5 billion in lease receivables and $2.5 billion in unguaranteed residuals. In certain cases, the Corporation obtains third-party residual value insurance to reduce its residual asset risk. The carrying value of residual assets with third-party residual value insurance for at least a portion of the asset value was $5.4 billion.

For the three and six months ended June 30, 2019, total lease income was $413 million and $839 million, consisting of $198 million and $403 million from sales-type and direct financing leases and $215 million and $436 million from operating leases.

Lessee Arrangements

The Corporation's lessee arrangements predominantly consist of operating leases for premises and equipment; the Corporation's financing leases are not significant. Right-of-use assets were $9.9 billion and lease liabilities were $10.2 billion at June 30, 2019. The weighted-average discount rate used to calculate the present value of future minimum lease payments was four percent.

Lease terms may contain renewal and extension options and early termination features. Generally, these options do not impact the lease term because the Corporation is not reasonably certain that it will exercise the options. The weighted-average lease term was 8.2 years at June 30, 2019.

The table below provides the components of lease cost and supplemental information for the three and six months ended June 30, 2019.

Lease Cost and Supplemental Information

(Dollars in millions)	Three Months Ended June 30, 2019	Six Months Ended June 30, 2019
Operating lease cost	$ 520	$ 1,039
Variable lease cost (1)	113	240
Total lease cost (2)	**$ 633**	**$ 1,279**
Right-of-use assets obtained in exchange for new operating lease liabilities (3)	$ 263	$ 648
Operating cash flows from operating leases (4)	499	1,000

(1) Primarily consists of payments for common area maintenance and property taxes.
(2) Amounts are recorded in occupancy and equipment expense in the Consolidated Statement of Income.
(3) Represents non-cash activity and, accordingly, is not reflected in the Consolidated Statement of Cash Flows.
(4) Represents cash paid for amounts included in the measurement of lease liabilities.

Maturity Analysis

The maturities of lessor and lessee arrangements outstanding at June 30, 2019 are presented in the table below based on undiscounted cash flows.

Maturities of Lessor and Lessee Arrangements

	Lessor		Lessee (1)
	Operating Leases	Sales-type and Direct Financing Leases (2)	Operating Leases
(Dollars in millions)	June 30, 2019		
Remainder of 2019	$ 402	$ 3,172	$ 1,002
2020	725	5,816	1,907
2021	612	4,766	1,686
2022	516	3,100	1,426
2023	411	1,598	1,167
Thereafter	1,217	2,784	4,896
Total undiscounted cash flows	$ 3,883	$ 21,236	$ 12,084
Less: Net present value adjustment		1,694	1,845
Total (3)		**$ 19,542**	**$ 10,239**

(1) Excludes $1.6 billion in commitments under lessee arrangements that have not yet commenced with lease terms that will begin later in 2019.
(2) Includes $15.8 billion in commercial lease financing receivables and $3.7 billion in direct/indirect consumer lease financing receivables.
(3) Represents lease receivables for lessor arrangements and lease liabilities for lessee arrangements.

At December 31, 2018, operating lease commitments under lessee arrangements were $2.4 billion, $2.2 billion, $2.0 billion, $1.7 billion and $1.3 billion for 2019 through 2023, respectively, and $6.2 billion in the aggregate for all years thereafter. These amounts include variable lease payments and commitments under leases that have not yet commenced, both of which are excluded from the lessee maturity analysis presented in the table above.

NOTE 10 Federal Funds Sold or Purchased, Securities Financing Agreements, Short-term Borrowings and Restricted Cash

The table below presents federal funds sold or purchased, securities financing agreements (which include securities borrowed or purchased under agreements to resell and securities loaned or sold under agreements to repurchase) and short-term borrowings. The Corporation elects to account for certain securities financing agreements and short-term borrowings under the fair value option. For more information on the fair value option, see *Note 16 – Fair Value Option*.

	Amount	**Rate**	Amount	Rate	**Amount**	**Rate**	Amount	Rate
	Three Months Ended June 30				**Six Months Ended June 30**			
(Dollars in millions)	**2019**		2018		**2019**		2018	
Federal funds sold and securities borrowed or purchased under agreements to resell								
Average during period	**$ 281,085**	**1.87%**	$ 251,880	1.13%	**$ 277,715**	**1.82%**	$ 250,110	1.07%
Maximum month-end balance during period	**263,416**	**n/a**	264,923	n/a	**280,562**	**n/a**	264,923	n/a
Federal funds purchased and securities loaned or sold under agreements to repurchase								
Average during period	**$ 204,001**	**2.50%**	$ 194,298	1.85%	**$ 202,088**	**2.47%**	$ 194,953	1.63%
Maximum month-end balance during period	**203,063**	**n/a**	199,419	n/a	**203,063**	**n/a**	199,419	n/a
Short-term borrowings								
Average during period	**23,051**	**2.79**	40,542	5.61	**19,263**	**2.86**	43,422	4.75
Maximum month-end balance during period	**28,600**	**n/a**	44,382	n/a	**28,600**	**n/a**	52,480	n/a

n/a = not applicable

Offsetting of Securities Financing Agreements

The Corporation enters into securities financing agreements to accommodate customers (also referred to as "matched-book transactions"), obtain securities to cover short positions, and to finance inventory positions. For more information on securities financing agreements and the offsetting of securities financing transactions, see *Note 10 – Federal Funds Sold or Purchased, Securities Financing Agreements, Short-term Borrowings and Restricted Cash* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

The Securities Financing Agreements table presents securities financing agreements included on the Consolidated Balance Sheet in federal funds sold and securities borrowed or purchased under agreements to resell, and in federal funds purchased and securities loaned or sold under agreements to repurchase at June 30, 2019 and December 31, 2018. Balances are presented on a gross basis, prior to the application of counterparty netting. Gross assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements. For more information on the offsetting of derivatives, see *Note 3 – Derivatives*.

Securities Financing Agreements

(Dollars in millions)	Gross Assets/Liabilities (1)	Amounts Offset	Net Balance Sheet Amount	Financial Instruments (2)	Net Assets/Liabilities
			June 30, 2019		
Securities borrowed or purchased under agreements to resell (3)	**$ 400,282**	**$ (152,205)**	**$ 248,077**	**$ (227,203)**	**$ 20,874**
Securities loaned or sold under agreements to repurchase	**$ 347,153**	**$ (152,205)**	**$ 194,948**	**$ (182,904)**	**$ 12,044**
Other (4)	**22,683**	**—**	**22,683**	**(22,683)**	**—**
Total	**$ 369,836**	**$ (152,205)**	**$ 217,631**	**$ (205,587)**	**$ 12,044**
			December 31, 2018		
Securities borrowed or purchased under agreements to resell (3)	$ 366,274	$ (106,865)	$ 259,409	$ (240,790)	$ 18,619
Securities loaned or sold under agreements to repurchase	$ 293,853	$ (106,865)	$ 186,988	$ (176,740)	$ 10,248
Other (4)	19,906	—	19,906	(19,906)	—
Total	$ 313,759	$ (106,865)	$ 206,894	$ (196,646)	$ 10,248

(1) Includes activity where uncertainty exists as to the enforceability of certain master netting agreements under bankruptcy laws in some countries or industries.
(2) Includes securities collateral received or pledged under repurchase or securities lending agreements where there is a legally enforceable master netting agreement. These amounts are not offset on the Consolidated Balance Sheet, but are shown as a reduction to derive a net asset or liability. Securities collateral received or pledged where the legal enforceability of the master netting agreements is uncertain is excluded from the table.
(3) Excludes repurchase activity of $12.9 billion and $11.5 billion reported in loans and leases on the Consolidated Balance Sheet at June 30, 2019 and December 31, 2018.
(4) Balance is reported in accrued expenses and other liabilities on the Consolidated Balance Sheet and relates to transactions where the Corporation acts as the lender in a securities lending agreement and receives securities that can be pledged as collateral or sold. In these transactions, the Corporation recognizes an asset at fair value, representing the securities received, and a liability, representing the obligation to return those securities.

Repurchase Agreements and Securities Loaned Transactions Accounted for as Secured Borrowings

The following tables present securities sold under agreements to repurchase and securities loaned by remaining contractual term to maturity and class of collateral pledged. Included in "Other" are transactions where the Corporation acts as the lender in a securities lending agreement and receives securities that can be pledged as collateral or sold. Certain agreements contain a right to substitute collateral and/or terminate the agreement prior to maturity at the option of the Corporation or the counterparty. Such agreements are included in the table below based on the remaining contractual term to maturity. For more information on collateral requirements, see *Note 10 – Federal Funds Sold or Purchased, Securities Financing Agreements, Short-term Borrowings and Restricted Cash* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Remaining Contractual Maturity

(Dollars in millions)	Overnight and Continuous	30 Days or Less	After 30 Days Through 90 Days	Greater than 90 Days (1)	Total
			June 30, 2019		
Securities sold under agreements to repurchase	**$ 156,634**	**$ 97,077**	**$ 34,900**	**$ 35,311**	**$ 323,922**
Securities loaned	**18,161**	**457**	**1,016**	**3,597**	**23,231**
Other	**22,683**	**—**	**—**	**—**	**22,683**
Total	**$ 197,478**	**$ 97,534**	**$ 35,916**	**$ 38,908**	**$ 369,836**
			December 31, 2018		
Securities sold under agreements to repurchase	$ 139,017	$ 81,917	$ 34,204	$ 21,476	$ 276,614
Securities loaned	7,753	4,197	1,783	3,506	17,239
Other	19,906	—	—	—	19,906
Total	$ 166,676	$ 86,114	$ 35,987	$ 24,982	$ 313,759

(1) No agreements have maturities greater than three years.

Class of Collateral Pledged

(Dollars in millions)	Securities Sold Under Agreements to Repurchase	Securities Loaned	Other	Total
		June 30, 2019		
U.S. government and agency securities	**$ 186,529**	**$ 31**	**$ 1**	**$ 186,561**
Corporate securities, trading loans and other	**12,390**	**3,917**	**231**	**16,538**
Equity securities	**14,672**	**13,250**	**22,399**	**50,321**
Non-U.S. sovereign debt	**106,086**	**6,033**	**52**	**112,171**
Mortgage trading loans and ABS	**4,245**	**—**	**—**	**4,245**
Total	**$ 323,922**	**$ 23,231**	**$ 22,683**	**$ 369,836**
		December 31, 2018		
U.S. government and agency securities	$ 164,664	$ —	$ —	$ 164,664
Corporate securities, trading loans and other	11,400	2,163	287	13,850
Equity securities	14,090	10,869	19,572	44,531
Non-U.S. sovereign debt	81,329	4,207	47	85,583
Mortgage trading loans and ABS	5,131	—	—	5,131

Total	$	276,614	$	17,239	$	19,906	$	313,759

Restricted Cash

At June 30, 2019 and December 31, 2018, the Corporation held restricted cash included within cash and cash equivalents on the Consolidated Balance Sheet of $25.1 billion and $22.6 billion, predominantly related to cash held on deposit with the Federal Reserve Bank and non-U.S. central banks to meet reserve requirements and cash segregated in compliance with securities regulations.

NOTE 11 Commitments and Contingencies

In the normal course of business, the Corporation enters into a number of off-balance sheet commitments. These commitments expose the Corporation to varying degrees of credit and market risk and are subject to the same credit and market risk limitation reviews as those instruments recorded on the Consolidated Balance Sheet. For more information on commitments and contingencies, see *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Credit Extension Commitments

The Corporation enters into commitments to extend credit such as loan commitments, standby letters of credit (SBLCs) and commercial letters of credit to meet the financing needs of its customers. The following table includes the notional amount of unfunded legally binding lending commitments net of amounts distributed (i.e., syndicated or participated) to other financial institutions. The distributed amounts were $10.6 billion and $10.7 billion at June 30, 2019 and December 31, 2018. At June 30, 2019, the carrying value of these commitments, excluding commitments accounted for under the fair value option, was $823 million, including deferred revenue of $17 million and a reserve for unfunded lending commitments of $806 million. At December 31, 2018, the comparable amounts were $813 million, $16 million and $797 million, respectively. The carrying value of these commitments is classified in accrued expenses and other liabilities on the Consolidated Balance Sheet.

Legally binding commitments to extend credit generally have specified rates and maturities. Certain of these commitments have adverse change clauses that help to protect the Corporation against deterioration in the borrower's ability to pay.

The table below also includes the notional amount of commitments of $4.6 billion and $3.1 billion at June 30, 2019 and December 31, 2018 that are accounted for under the fair value option. However, the table excludes cumulative net fair value of $128 million and $169 million at June 30, 2019 and December 31, 2018 on these commitments, which is classified in accrued expenses and other liabilities. For more information regarding the Corporation's loan commitments accounted for under the fair value option, see *Note 16 – Fair Value Option*.

Credit Extension Commitments

(Dollars in millions)	Expire in One Year or Less	Expire After One Year Through Three Years	Expire After Three Years Through Five Years	Expire After Five Years	Total
			June 30, 2019		
Notional amount of credit extension commitments					
Loan commitments (1)	**$ 88,218**	**$ 147,733**	**$ 161,196**	**$ 22,984**	**$ 420,131**
Home equity lines of credit	**1,791**	**1,825**	**4,624**	**35,281**	**43,521**
Standby letters of credit and financial guarantees (2)	**19,827**	**9,787**	**3,165**	**1,444**	**34,223**
Letters of credit (3)	**1,553**	**325**	**215**	**36**	**2,129**
Legally binding commitments	**111,389**	**159,670**	**169,200**	**59,745**	**500,004**
Credit card lines (4)	**379,383**	**—**	**—**	**—**	**379,383**
Total credit extension commitments	**$ 490,772**	**$ 159,670**	**$ 169,200**	**$ 59,745**	**$ 879,387**
			December 31, 2018		
Notional amount of credit extension commitments					
Loan commitments (1)	$ 84,910	$ 142,271	$ 155,298	$ 22,683	$ 405,162
Home equity lines of credit	2,578	2,249	3,530	34,702	43,059
Standby letters of credit and financial guarantees (2)	22,571	9,702	2,457	1,074	35,804
Letters of credit (3)	1,168	84	69	57	1,378
Legally binding commitments	111,227	154,306	161,354	58,516	485,403
Credit card lines (4)	371,658	—	—	—	371,658
Total credit extension commitments	$ 482,885	$ 154,306	$ 161,354	$ 58,516	$ 857,061

(1) At June 30, 2019 and December 31, 2018, $5.1 billion and $4.3 billion of these loan commitments are held in the form of a security.
(2) The notional amounts of SBLCs and financial guarantees classified as investment grade and non-investment grade based on the credit quality of the underlying reference name within the instrument were $26.4 billion and $7.4 billion at June 30, 2019, and $28.3 billion and $7.1 billion at December 31, 2018. Amounts in the table include consumer SBLCs of $377 million and $372 million at June 30, 2019 and December 31, 2018.
(3) At June 30, 2019 and December 31, 2018, included are letters of credit of $695 million and $422 million related to certain liquidity commitments of VIEs. For additional information, see *Note 7 – Securitizations and Other Variable Interest Entities*.
(4) Includes business card unused lines of credit.

Other Commitments

At June 30, 2019 and December 31, 2018, the Corporation had commitments to purchase loans (e.g., residential mortgage and commercial real estate) of $277 million and $329 million, which upon settlement will be included in loans or LHFS, and commitments to purchase commercial loans of $366 million and $463 million, which upon settlement will be included in trading account assets.

At June 30, 2019 and December 31, 2018, the Corporation had commitments to purchase commodities, primarily liquefied natural gas, of $1.0 billion and $1.3 billion, which upon settlement will be included in trading account assets.

At June 30, 2019 and December 31, 2018, the Corporation had commitments to enter into resale and forward-dated resale and securities borrowing agreements of $95.6 billion and $59.7 billion, and commitments to enter into forward-dated repurchase and securities lending agreements of $76.2 billion and $21.2 billion. These commitments expire primarily within the next 18 months.

At June 30, 2019 and December 31, 2018, the Corporation had a commitment to originate or purchase up to $3.2 billion and $3.0 billion on a rolling 12-month basis, of auto loans and leases from a strategic partner. This commitment extends through November 2022 and can be terminated with 12 months prior notice.

Other Guarantees

Bank-owned Life Insurance Book Value Protection

The Corporation sells products that offer book value protection to insurance carriers who offer group life insurance policies to corporations, primarily banks. At June 30, 2019 and December 31, 2018, the notional amount of these guarantees totaled $7.6 billion and $9.8 billion. At June 30, 2019 and December 31, 2018, the Corporation's maximum exposure related to these guarantees totaled $1.1 billion and $1.5 billion, with estimated maturity dates between 2033 and 2039.

Merchant Services

In accordance with credit and debit card association rules, the Corporation sponsors merchant processing servicers that process credit and debit card transactions on behalf of various merchants. If the merchant processor fails to meet its obligation to reimburse the cardholder for disputed transactions, then the Corporation could be held liable. For the three and six months ended June 30, 2019, the sponsored entities processed and settled $235.7 billion and $441.3 billion of transactions and recorded losses of $7 million and $11 million. For the same periods in 2018, the sponsored entities processed and settled $226.1 billion and $426.8 billion of transactions and recorded losses of $9 million and $17 million.

At June 30, 2019 and December 31, 2018, the maximum potential exposure for sponsored transactions totaled $356.6 billion and $348.1 billion. However, the Corporation believes that the maximum potential exposure is not representative of the actual potential loss exposure and does not expect to make material payments in connection with these guarantees.

A significant portion of the Corporation's merchant processing activity is performed by a joint venture, formed in 2009, in which the Corporation holds a 49 percent ownership interest. The carrying value of the Corporation's investment was $2.7 billion and $2.8 billion at June 30, 2019 and December 31, 2018. The joint venture is accounted for as an equity method investment and reported in *All Other*. In June 2019, the joint venture partners agreed to extend the Corporation's right to terminate the joint venture at the end of its current term, which is June 2020, from one year to four months prior to that date. On July 29, 2019, the Corporation gave notice to the joint venture partner of the termination of the joint venture upon the conclusion of its current term. As a result, the Corporation expects to incur a non-cash, pretax impairment charge in the third quarter of 2019 of approximately $1.7 billion to $2.1 billion, which is estimated to reduce the Common equity tier 1 ratio by 9 to 11 basis points.

Representations and Warranties Obligations and Corporate Guarantees

For more information on representations and warranties obligations and corporate guarantees, and the related reserve and estimated range of possible loss, see *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

The reserve for representations and warranties obligations and corporate guarantees was $2.0 billion at both June 30, 2019 and December 31, 2018 and is included in accrued expenses and other liabilities on the Consolidated Balance Sheet and the related provision is included in other income in the Consolidated Statement of Income. The representations and warranties reserve represents the Corporation's best estimate of probable incurred losses. It is reasonably possible that future representations and warranties losses may occur in excess of the amounts recorded for these exposures. See Litigation and Regulatory Matters below for the Corporation's combined range of possible loss in excess of the reserve for representations and warranties and the accrued liability for litigation.

Other Guarantees

The Corporation has entered into additional guarantee agreements and commitments, including sold risk participation swaps, liquidity facilities, lease-end obligation agreements, partial credit guarantees on certain leases, real estate joint venture guarantees, divested business commitments and sold put options that require gross settlement. The maximum potential future payment under these agreements was approximately $7.2 billion and $5.9 billion at June 30, 2019 and December 31, 2018. The estimated maturity dates of these obligations extend up to 2040. The Corporation has made no material payments under these guarantees. For more information on maximum potential future payments under VIE-related liquidity commitments, see *Note 7 – Securitizations and Other Variable Interest Entities*.

In the normal course of business, the Corporation periodically guarantees the obligations of its affiliates in a variety of transactions including ISDA-related transactions and non-ISDA related transactions such as commodities trading, repurchase agreements, prime brokerage agreements and other transactions.

Guarantees of Certain Long-term Debt

The Corporation, as the parent company, fully and unconditionally guarantees the securities issued by BofA Finance LLC, a 100 percent owned finance subsidiary of the Corporation, and effectively provides for the full and unconditional guarantee of trust securities issued by certain statutory trust companies that are 100 percent owned finance subsidiaries of the Corporation.

Litigation and Regulatory Matters

The following disclosure supplements the disclosure in *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K (the prior commitments and contingencies disclosure).

In the ordinary course of business, the Corporation and its subsidiaries are routinely defendants in or parties to many pending and threatened legal, regulatory and governmental actions and proceedings. In view of the inherent difficulty of predicting the outcome of such matters, particularly where the claimants seek very large or indeterminate damages or where the matters present novel legal theories or involve a large number of parties, the Corporation generally cannot predict the eventual outcome of the pending matters, the timing of the ultimate resolution of these matters, or any eventual loss, fines or penalties related to each pending matter.

In accordance with applicable accounting guidance, the Corporation establishes an accrued liability when those matters present loss contingencies that are both probable and estimable. In such cases, there may be an exposure to loss in excess of any amounts accrued. Excluding expenses of internal and external legal service providers, litigation-related expense of $114 million and $187 million was recognized for the three and six months ended June 30, 2019 compared to $86 million and $202 million for the same periods in 2018.

For a limited number of the matters disclosed in this Note, and in the prior commitments and contingencies disclosure, for which a loss, whether in excess of a related accrued liability or where there is no accrued liability, is reasonably possible in future periods, the Corporation is able to estimate a range of possible loss. With respect to such matters, in cases in which the Corporation possesses sufficient appropriate information to estimate a range of possible loss, that estimate is aggregated and disclosed below. There may be other disclosed matters for which a loss is probable or reasonably possible but such an estimate of the range of possible loss may not be possible. For those disclosed matters where an estimate of the range of possible loss is possible, as well as for representations and warranties exposures, management currently estimates the aggregate range of reasonably possible loss for these exposures is $0 to $1.9 billion in excess of the accrued liability, if any. This estimated range of possible loss is based upon currently available information and is subject to significant judgment and a variety of assumptions, and known and unknown uncertainties. The matters underlying the estimated range will change from time to time, and actual results may vary significantly from the current estimate. Therefore, this estimated range of possible loss represents what the Corporation believes to be an estimate of possible loss only for certain matters meeting these criteria. It does not represent the Corporation's maximum loss exposure.

Information is provided below, or in the prior commitments and contingencies disclosure regarding the nature of the litigation contingencies and, where specified, the amount of the claim associated with these loss contingencies. Based on current knowledge, management does not believe that loss contingencies arising from pending matters, including the matters described below, and in the prior commitments and contingencies disclosure, will have a material adverse effect on the consolidated financial position or liquidity of the Corporation. However, in light of the inherent uncertainties involved in these matters, some of which are beyond the Corporation's control, and the very large or indeterminate damages sought in some of these matters, an adverse outcome in one or more of these matters could be material to the Corporation's results of operations or liquidity for any particular reporting period.

Investigations of Precious Metals Trading

In connection with the U.S. Commodity Futures Trading Commission's (CFTC) and U.S. Department of Justice's (DOJ) investigations of precious metals market trading practices, on June 25, 2019, Merrill Lynch Commodities, Inc. (MLCI), an indirect wholly-owned subsidiary of the Corporation, entered into a civil settlement with the CFTC and a non-prosecution agreement with the DOJ. Those resolutions resulted in settlement payments totaling $36.5 million and require MLCI and the Corporation to undertake certain remedial measures and other obligations.

Mortgage Repurchase Litigation

U.S. Bank - SURF/OWNIT Repurchase Litigation

On July 19, 2019, a settlement regarding one of the seven securitization trusts (the Trusts) became final. For the remaining six Trusts, the defendants and certain certificate-holders agreed to settle the respective litigations in amounts not material to the Corporation, subject to acceptance by U.S. Bank.

NOTE 12 Shareholders' Equity

Common Stock

Declared Quarterly Cash Dividends on Common Stock (1)

Declaration Date	Record Date	Payment Date	Dividend Per Share
July 25, 2019	September 6, 2019	September 27, 2019	$ 0.18
April 24, 2019	June 7, 2019	June 28, 2019	0.15
January 30, 2019	March 1, 2019	March 29, 2019	0.15

(1) In 2019, and through July 29, 2019.

On June 27, 2019, following the Federal Reserve's non-objection to the Corporation's 2019 Comprehensive Capital Analysis and Review (CCAR) capital plan, the Board of Directors (the Board) authorized the repurchase of approximately $30.9 billion in common stock from July 1, 2019 through June 30, 2020, including approximately $900 million to offset the effect of equity-based compensation plans during the same period. As part of the capital plan, on July 25, 2019, the Board declared a quarterly common stock dividend of $0.18 per share.

During the three and six months ended June 30, 2019, the Corporation repurchased and retired 226 million and 446 million shares of common stock in connection with the 2018 CCAR capital plan and additional repurchase authorizations, which reduced shareholders' equity by $6.5 billion and $12.8 billion.

During the six months ended June 30, 2019, in connection with employee stock plans, the Corporation issued 83 million shares of its common stock and, to satisfy tax withholding obligations, repurchased 32 million shares of its common stock. At June 30, 2019, the Corporation had reserved 593 million unissued shares of common stock for future issuances under employee stock plans, convertible notes and preferred stock.

Preferred Stock

During the three months ended March 31, 2019 and June 30, 2019, the Corporation declared $442 million and $239 million of cash dividends on preferred stock, or a total of $681 million for the six months ended June 30, 2019. On June 20, 2019, the Corporation issued 40,000 shares of 5.125% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series JJ for $1.0 billion. Dividends are paid semi-annually during the fixed-rate period commencing on December 20, 2019, then quarterly during the floating-rate period commencing September 20, 2024. The Series JJ preferred stock has a liquidation preference of $25,000 per share and is subject to certain restrictions in the event the Corporation fails to declare and pay full dividends. On June 25, 2019, the Corporation issued 55,900 shares of 5.375% Non-Cumulative Preferred Stock, Series KK for $1.4 billion. Dividends are paid quarterly commencing on September 25, 2019. The Series KK preferred stock has a liquidation preference of $25,000 per share and is subject to certain restrictions in the event that the Corporation fails to declare and pay full dividends. There were no redemptions of preferred stock during the three and six months ended June 30, 2019. For more information on the Corporation's preferred stock, including liquidation preference, dividend requirements and redemption period, see *Note 13 – Shareholders' Equity* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

NOTE 13 Earnings Per Common Share

The calculation of earnings per common share (EPS) and diluted EPS for the three and six months ended June 30, 2019 and 2018 is presented below. For more information on the calculation of EPS, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

	Three Months Ended June 30		Six Months Ended June 30	
(In millions, except per share information)	**2019**	2018	**2019**	2018
Earnings per common share				
Net income	**$ 7,348**	$ 6,784	**$ 14,659**	$ 13,702
Preferred stock dividends	**(239)**	(318)	**(681)**	(746)
Net income applicable to common shareholders	**$ 7,109**	$ 6,466	**$ 13,978**	$ 12,956
Average common shares issued and outstanding	**9,523.2**	10,181.7	**9,624.0**	10,251.7
Earnings per common share	**$ 0.75**	$ 0.64	**$ 1.45**	$ 1.26
Diluted earnings per common share				
Net income applicable to common shareholders	**$ 7,109**	$ 6,466	**$ 13,978**	$ 12,956
Average common shares issued and outstanding	**9,523.2**	10,181.7	**9,624.0**	10,251.7
Dilutive potential common shares (1)	**36.4**	127.7	**48.4**	138.2
Total diluted average common shares issued and outstanding	**9,559.6**	10,309.4	**9,672.4**	10,389.9
Diluted earnings per common share	**$ 0.74**	$ 0.63	**$ 1.45**	$ 1.25

(1) Includes incremental dilutive shares from restricted stock units, restricted stock and warrants.

For both the three and six months ended June 30, 2019 and 2018, 62 million average dilutive potential common shares associated with the Series L preferred stock were not included in the diluted share count because the result would have been antidilutive under the "if-converted" method. For the three and six months ended June 30, 2018, average options to purchase three million and six million shares of common stock were outstanding but not included in the computation of EPS because the result would have been antidilutive under the treasury stock method. For both the three and six months ended June 30, 2018, average warrants to purchase 122 million shares of common stock were outstanding but not included in the computation of EPS because the result would have been antidilutive under the treasury stock method. These warrants expired on October 29, 2018. For the three and six months ended June 30, 2018, average warrants to purchase 140 million and 141 million shares of common stock were included in the diluted EPS calculation under the treasury stock method. Substantially all of these warrants were exercised on or before their expiration date of January 16, 2019.

NOTE 14 Accumulated Other Comprehensive Income (Loss)

The table below presents the changes in accumulated OCI after-tax for the six months ended June 30, 2019 and 2018.

(Dollars in millions)	Debt Securities	Debit Valuation Adjustments	Derivatives	Employee Benefit Plans	Foreign Currency	Total
Balance, December 31, 2017	$ (1,206)	$ (1,060)	$ (831)	$ (3,192)	$ (793)	$ (7,082)
Accounting change related to certain tax effects (1)	(393)	(220)	(189)	(707)	239	(1,270)
Cumulative adjustment for hedge accounting change (2)	—	—	57	—	—	57
Net change	(4,994)	452	(367)	60	(189)	(5,038)
Balance, June 30, 2018	$ (6,593)	$ (828)	$ (1,330)	$ (3,839)	$ (743)	$ (13,333)
Balance, December 31, 2018	$ (5,552)	$ (531)	$ (1,016)	$ (4,304)	$ (808)	$ (12,211)
Net change	**4,693**	**(501)**	**533**	**57**	**(48)**	**4,734**
Balance, June 30, 2019	**$ (859)**	**$ (1,032)**	**$ (483)**	**$ (4,247)**	**$ (856)**	**$ (7,477)**

(1) Effective January 1, 2018, the Corporation adopted the accounting standard on tax effects in accumulated OCI related to the Tax Act. Accordingly, certain tax effects were reclassified from accumulated OCI to retained earnings.
(2) Effective January 1, 2018, the Corporation adopted the hedge accounting standard. Accordingly, an insignificant cumulative-effect adjustment was recognized in retained earnings.

The table below presents the net change in fair value recorded in accumulated OCI, net realized gains and losses reclassified into earnings and other changes for each component of OCI pre- and after-tax for the six months ended June 30, 2019 and 2018.

	Six Months Ended June 30					
	2019			2018		
(Dollars in millions)	**Pretax**	**Tax effect**	**After-tax**	Pretax	Tax effect	After-tax
Debt securities:						
Net increase (decrease) in fair value	**$ 6,354**	**$ (1,583)**	**$ 4,771**	$ (6,700)	$ 1,702	$ (4,998)
Net realized (gains) losses reclassified into earnings (1)	**(104)**	**26**	**(78)**	8	(4)	4
Net change	**6,250**	**(1,557)**	**4,693**	(6,692)	1,698	(4,994)
Debit valuation adjustments:						
Net increase (decrease) in fair value	**(663)**	**153**	**(510)**	576	(138)	438
Net realized losses reclassified into earnings (1)	**10**	**(1)**	**9**	18	(4)	14
Net change	**(653)**	**152**	**(501)**	594	(142)	452
Derivatives:						
Net increase (decrease) in fair value	**637**	**(143)**	**494**	(578)	169	(409)
Reclassifications into earnings:						
Net interest income	**51**	**(12)**	**39**	83	(21)	62
Compensation and benefits expense	**—**	**—**	**—**	(27)	7	(20)
Net realized losses reclassified into earnings	**51**	**(12)**	**39**	56	(14)	42
Net change	**688**	**(155)**	**533**	(522)	155	(367)
Employee benefit plans:						
Net actuarial losses and other reclassified into earnings (2)	**74**	**(17)**	**57**	78	(18)	60
Net change	**74**	**(17)**	**57**	78	(18)	60
Foreign currency:						
Net (decrease) in fair value	**(37)**	**(11)**	**(48)**	(50)	(139)	(189)
Net change	**(37)**	**(11)**	**(48)**	(50)	(139)	(189)
Total other comprehensive income (loss)	**$ 6,322**	**$ (1,588)**	**$ 4,734**	$ (6,592)	$ 1,554	$ (5,038)

(1) Reclassifications of pretax debt securities and DVA are recorded in other income in the Consolidated Statement of Income.
(2) Reclassifications of pretax employee benefit plan costs are recorded in other general operating expense in the Consolidated Statement of Income.

NOTE 15 Fair Value Measurements

Under applicable accounting standards, fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Corporation determines the fair values of its financial instruments under applicable accounting standards and conducts a review of its fair value hierarchy classifications on a quarterly basis. Transfers into or out of fair value hierarchy classifications are made if the significant inputs used in the financial models measuring the fair values of the assets and liabilities become unobservable or observable in the current marketplace. During the six months ended June 30, 2019, there were no changes to valuation approaches or techniques that had, or are expected to have, a material impact on the Corporation's consolidated financial position or results of operations.

For more information regarding the fair value hierarchy, how the Corporation measures fair value and valuation techniques, see *Note 1 – Summary of Significant Accounting Principles* and *Note 20 – Fair Value Measurements* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K. The Corporation accounts for certain financial instruments under the fair value option. For additional information, see *Note 16 – Fair Value Option*.

Recurring Fair Value

Assets and liabilities carried at fair value on a recurring basis at June 30, 2019 and December 31, 2018, including financial instruments that the Corporation accounts for under the fair value option, are summarized in the following tables.

	June 30, 2019				
	Fair Value Measurements				
(Dollars in millions)	Level 1	Level 2	Level 3	Netting Adjustments (1)	Assets/Liabilities at Fair Value
Assets					
Time deposits placed and other short-term investments	$ 1,179	$ —	$ —	$ —	$ 1,179
Federal funds sold and securities borrowed or purchased under agreements to resell	—	54,257	—	—	54,257
Trading account assets:					
U.S. Treasury and agency securities (2)	42,612	825	—	—	43,437
Corporate securities, trading loans and other	—	27,902	1,393	—	29,295
Equity securities	72,274	30,515	296	—	103,085
Non-U.S. sovereign debt	11,279	29,318	481	—	41,078
Mortgage trading loans, MBS and ABS:					
U.S. government-sponsored agency guaranteed (2)	—	24,769	—	—	24,769
Mortgage trading loans, ABS and other MBS	—	8,934	1,389	—	10,323
Total trading account assets (3)	126,165	122,263	3,559	—	251,987
Derivative assets	14,574	336,706	3,403	(309,771)	44,912
AFS debt securities:					
U.S. Treasury and agency securities	55,574	1,245	—	—	56,819
Mortgage-backed securities:					
Agency	—	125,569	—	—	125,569
Agency-collateralized mortgage obligations	—	5,210	—	—	5,210
Non-agency residential	—	1,454	568	—	2,022
Commercial	—	14,525	—	—	14,525
Non-U.S. securities	—	11,183	2	—	11,185
Other taxable securities	—	3,692	3	—	3,695
Tax-exempt securities	—	16,954	—	—	16,954
Total AFS debt securities	55,574	179,832	573	—	235,979
Other debt securities carried at fair value:					
Non-agency residential MBS	—	1,325	273	—	1,598
Non-U.S. securities	2,838	5,676	—	—	8,514
Other taxable securities	—	3	—	—	3
Total other debt securities carried at fair value	2,838	7,004	273	—	10,115
Loans and leases	—	7,508	355	—	7,863
Loans held-for-sale	—	1,902	486	—	2,388
Other assets (4)	17,689	1,834	2,551	—	22,074
Total assets (5)	$ 218,019	$ 711,306	$ 11,200	$ (309,771)	$ 630,754
Liabilities					
Interest-bearing deposits in U.S. offices	$ —	$ 604	$ —	$ —	$ 604
Federal funds purchased and securities loaned or sold under agreements to repurchase	—	19,866	—	—	19,866
Trading account liabilities:					
U.S. Treasury and agency securities	14,891	2,072	—	—	16,963
Equity securities	32,135	3,604	2	—	35,741
Non-U.S. sovereign debt	13,814	8,100	—	—	21,914
Corporate securities and other	—	7,519	13	—	7,532
Total trading account liabilities	60,840	21,295	15	—	82,150
Derivative liabilities	13,435	330,362	4,517	(309,934)	38,380
Short-term borrowings	—	2,403	—	—	2,403
Accrued expenses and other liabilities	20,773	2,038	—	—	22,811
Long-term debt	—	34,296	902	—	35,198
Total liabilities (5)	$ 95,048	$ 410,864	$ 5,434	$ (309,934)	$ 201,412

(1) Amounts represent the impact of legally enforceable master netting agreements and also cash collateral held or placed with the same counterparties.
(2) Includes $25.2 billion of GSE obligations.
(3) Includes securities with a fair value of $16.0 billion that were segregated in compliance with securities regulations or deposited with clearing organizations. This amount is included in the parenthetical disclosure on the Consolidated Balance Sheet.
(4) Includes MSRs of $1.7 billion which are classified as Level 3 assets.
(5) Total recurring Level 3 assets were 0.47 percent of total consolidated assets, and total recurring Level 3 liabilities were 0.26 percent of total consolidated liabilities.

(Dollars in millions)	December 31, 2018									
	Fair Value Measurements									
	Level 1		Level 2		Level 3		Netting Adjustments (1)		Assets/Liabilities at Fair Value	
Assets										
Time deposits placed and other short-term investments	$	1,214	$	—	$	—	$	—	$	1,214
Federal funds sold and securities borrowed or purchased under agreements to resell		—		56,399		—		—		56,399
Trading account assets:										
U.S. Treasury and agency securities (2)		53,131		1,593		—		—		54,724
Corporate securities, trading loans and other		—		24,630		1,558		—		26,188
Equity securities		53,840		23,163		276		—		77,279
Non-U.S. sovereign debt		5,818		19,210		465		—		25,493
Mortgage trading loans, MBS and ABS:										
U.S. government-sponsored agency guaranteed (2)		—		19,586		—		—		19,586
Mortgage trading loans, ABS and other MBS		—		9,443		1,635		—		11,078
Total trading account assets (3)		112,789		97,625		3,934		—		214,348
Derivative assets		9,967		315,413		3,466		(285,121)		43,725
AFS debt securities:										
U.S. Treasury and agency securities		53,663		1,260		—		—		54,923
Mortgage-backed securities:										
Agency		—		121,826		—		—		121,826
Agency-collateralized mortgage obligations		—		5,530		—		—		5,530
Non-agency residential		—		1,320		597		—		1,917
Commercial		—		14,078		—		—		14,078
Non-U.S. securities		—		9,304		2		—		9,306
Other taxable securities		—		4,403		7		—		4,410
Tax-exempt securities		—		17,376		—		—		17,376
Total AFS debt securities		53,663		175,097		606		—		229,366
Other debt securities carried at fair value:										
U.S. Treasury and agency securities		1,282		—		—		—		1,282
Non-agency residential MBS		—		1,434		172		—		1,606
Non-U.S. securities		490		5,354		—		—		5,844
Other taxable securities		—		3		—		—		3
Total other debt securities carried at fair value		1,772		6,791		172		—		8,735
Loans and leases		—		4,011		338		—		4,349
Loans held-for-sale		—		2,400		542		—		2,942
Other assets (4)		15,032		1,775		2,932		—		19,739
Total assets (5)	$	194,437	$	659,511	$	11,990	$	(285,121)	$	580,817
Liabilities										
Interest-bearing deposits in U.S. offices	$	—	$	492	$	—	$	—	$	492
Federal funds purchased and securities loaned or sold under agreements to repurchase		—		28,875		—		—		28,875
Trading account liabilities:										
U.S. Treasury and agency securities		7,894		761		—		—		8,655
Equity securities		33,739		4,070		—		—		37,809
Non-U.S. sovereign debt		7,452		9,182		—		—		16,634
Corporate securities and other		—		5,104		18		—		5,122
Total trading account liabilities		49,085		19,117		18		—		68,220
Derivative liabilities		9,931		303,441		4,401		(279,882)		37,891
Short-term borrowings		—		1,648		—		—		1,648
Accrued expenses and other liabilities		18,096		1,979		—		—		20,075
Long-term debt		—		26,872		817		—		27,689
Total liabilities (5)	$	77,112	$	382,424	$	5,236	$	(279,882)	$	184,890

(1) Amounts represent the impact of legally enforceable master netting agreements and also cash collateral held or placed with the same counterparties.
(2) Includes $20.2 billion of GSE obligations.
(3) Includes securities with a fair value of $16.6 billion that were segregated in compliance with securities regulations or deposited with clearing organizations. This amount is included in the parenthetical disclosure on the Consolidated Balance Sheet.
(4) Includes MSRs of $2.0 billion which are classified as Level 3 assets.
(5) Total recurring Level 3 assets were 0.51 percent of total consolidated assets, and total recurring Level 3 liabilities were 0.25 percent of total consolidated liabilities.

The following tables present a reconciliation of all assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) during the three and six months ended June 30, 2019 and 2018, including net realized and unrealized gains (losses) included in earnings and accumulated OCI. Transfers into Level 3 occur primarily due to decreased price observability, and transfers out of Level 3 occur primarily due to increased price observability. Transfers occur on a regular basis for long-term debt instruments due to changes in the impact of unobservable inputs on the value of the embedded derivative in relation to the instrument as a whole.

Level 3 – Fair Value Measurements (1)

(Dollars in millions)	Balance April 1	Total Realized/Unrealized Gains (Losses) in Net Income (2)	Gains (Losses) in OCI (3)	Gross: Purchases	Gross: Sales	Gross: Issuances	Gross: Settlements	Gross Transfers into Level 3	Gross Transfers out of Level 3	Balance June 30	Change in Unrealized Gains (Losses) in Net Income Related to Financial Instruments Still Held (2)
Three Months Ended June 30, 2019											
Trading account assets:											
Corporate securities, trading loans and other	**$ 1,428**	**$ 55**	**$ —**	**$ 140**	**$ (79)**	**$ —**	**$ (146)**	**$ 107**	**$ (112)**	**$ 1,393**	**$ 26**
Equity securities	**288**	**20**	**—**	**3**	**(5)**	**—**	**—**	**1**	**(11)**	**296**	**20**
Non-U.S. sovereign debt	**472**	**19**	**5**	**1**	**—**	**—**	**(11)**	**—**	**(5)**	**481**	**19**
Mortgage trading loans, ABS and other MBS	**1,510**	**50**	**(1)**	**167**	**(324)**	**—**	**(115)**	**178**	**(76)**	**1,389**	**4**
Total trading account assets	**3,698**	**144**	**4**	**311**	**(408)**	**—**	**(272)**	**286**	**(204)**	**3,559**	**69**
Net derivative assets (4)	**(1,018)**	**(91)**	**—**	**56**	**(161)**	**—**	**(33)**	**17**	**116**	**(1,114)**	**(94)**
AFS debt securities:											
Non-agency residential MBS	**581**	**—**	**(3)**	**—**	**—**	**—**	**(14)**	**47**	**(43)**	**568**	**—**
Non-U.S. securities	**2**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**2**	**—**
Other taxable securities	**3**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**3**	**—**
Total AFS debt securities	**586**	**—**	**(3)**	**—**	**—**	**—**	**(14)**	**47**	**(43)**	**573**	**—**
Other debt securities carried at fair value – Non-agency residential MBS	**224**	**2**	**—**	**—**	**—**	**—**	**(7)**	**69**	**(15)**	**273**	**2**
Loans and leases (5)	**317**	**—**	**—**	**—**	**—**	**53**	**(15)**	**—**	**—**	**355**	**—**
Loans held-for-sale (5,6)	**558**	**26**	**2**	**—**	**(50)**	**—**	**(50)**	**—**	**—**	**486**	**16**
Other assets (6, 7)	**2,749**	**(80)**	**8**	**—**	**(10)**	**67**	**(183)**	**—**	**—**	**2,551**	**(128)**
Trading account liabilities – Equity securities	**—**	**(2)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(2)**	**(2)**
Trading account liabilities – Corporate securities and other	**(21)**	**7**	**—**	**1**	**—**	**—**	**—**	**—**	**—**	**(13)**	**—**
Long-term debt (5)	**(890)**	**(41)**	**—**	**—**	**—**	**(10)**	**38**	**—**	**1**	**(902)**	**(41)**
Three Months Ended June 30, 2018											
Trading account assets:											
Corporate securities, trading loans and other	$ 1,716	$ (37)	$ (1)	$ 81	$ (75)	$ —	$ (74)	$ 145	$ (117)	$ 1,638	$ (67)
Equity securities	212	1	—	2	(4)	—	(4)	29	(8)	228	(3)
Non-U.S. sovereign debt	401	13	(44)	7	—	—	—	8	(17)	368	13
Mortgage trading loans, ABS and other MBS	1,372	42	—	192	(256)	—	(38)	256	(45)	1,523	32
Total trading account assets	3,701	19	(45)	282	(335)	—	(116)	438	(187)	3,757	(25)
Net derivative assets (4)	(1,138)	(239)	—	195	(591)	—	175	(4)	14	(1,588)	(251)
AFS debt securities:											
Non-agency residential MBS	—	8	(14)	—	—	—	—	459	—	453	—
Non-U.S. securities	23	—	(1)	—	(10)	—	(12)	3	—	3	—
Other taxable securities	43	1	(2)	—	—	—	(3)	60	—	99	—
Tax-exempt securities	—	—	—	—	—	—	—	1	—	1	—
Total AFS debt securities	66	9	(17)	—	(10)	—	(15)	523	—	556	—
Other debt securities carried at fair value – Non-agency residential MBS	—	(4)	—	—	(7)	—	—	298	—	287	5
Loans and leases (5)	526	(4)	—	—	(5)	—	(24)	—	—	493	(4)
Loans held-for-sale (5)	685	(12)	(27)	—	—	—	(37)	—	(32)	577	(16)
Other assets (6, 7)	3,295	76	—	2	(8)	23	(169)	—	(35)	3,184	8
Trading account liabilities – Corporate securities and other	(26)	1	—	—	(9)	(1)	—	—	—	(35)	1
Accrued expenses and other liabilities (5)	(8)	—	—	—	—	—	8	—	—	—	—
Long-term debt (5)	(1,351)	63	2	4	—	(53)	151	(114)	73	(1,225)	66

(1) Assets (liabilities). For assets, increase (decrease) to Level 3 and for liabilities, (increase) decrease to Level 3.
(2) Includes gains (losses) reported in earnings in the following income statement line items: Trading account assets/liabilities - predominantly trading account income; Net derivative assets - trading account income and other income; Other debt securities carried at fair value - other income; Loans and leases - other income; Loans held-for-sale - other income; Other assets - primarily other income related to MSRs; Long-term debt - primarily trading account income. For MSRs, the amounts reflect the changes in modeled MSR fair value due to observed changes in interest rates, volatility, spreads and the shape of the forward swap curve, and periodic adjustments to the valuation model to reflect changes in the modeled relationships between inputs and projected cash flows, as well as changes in cash flow assumptions including cost to service.
(3) Includes unrealized gains (losses) in OCI on AFS debt securities, foreign currency translation adjustments and the impact of changes in the Corporation's credit spreads on long-term debt accounted for under the fair value option. Total gains (losses) in OCI include net unrealized gains of $11 million related to financial instruments still held at June 30, 2019.
(4) Net derivative assets include derivative assets of $3.4 billion and $4.5 billion and derivative liabilities of $4.5 billion and $6.1 billion at June 30, 2019 and 2018.
(5) Amounts represent instruments that are accounted for under the fair value option.
(6) Issuances represent loan originations and MSRs recognized following securitizations or whole-loan sales.
(7) Settlements primarily represent the net change in fair value of the MSR asset due to the recognition of modeled cash flows and the passage of time.

Level 3 – Fair Value Measurements (1)

(Dollars in millions)	Balance January 1	Total Realized/Unrealized Gains (Losses) in Net Income (2)	Gains (Losses) in OCI (3)	Gross Purchases	Gross Sales	Gross Issuances	Gross Settlements	Gross Transfers into Level 3	Gross Transfers out of Level 3	Balance June 30	Change in Unrealized Gains (Losses) in Net Income Related to Financial Instruments Still Held (2)
Six Months Ended June 30, 2019											
Trading account assets:											
Corporate securities, trading loans and other	**$ 1,558**	**$ 58**	**$ —**	**$ 194**	**$ (152)**	**$ —**	**$ (206)**	**$ 246**	**$ (305)**	**$ 1,393**	**$ 20**
Equity securities	**276**	**22**	**—**	**21**	**(6)**	**—**	**(3)**	**3**	**(17)**	**296**	**(4)**
Non-U.S. sovereign debt	**465**	**27**	**4**	**1**	**—**	**—**	**(11)**	**—**	**(5)**	**481**	**27**
Mortgage trading loans, ABS and other MBS	**1,635**	**88**	**(2)**	**397**	**(661)**	**—**	**(124)**	**267**	**(211)**	**1,389**	**20**
Total trading account assets	**3,934**	**195**	**2**	**613**	**(819)**	**—**	**(344)**	**516**	**(538)**	**3,559**	**63**
Net derivative assets (4)	**(935)**	**(116)**	**—**	**167**	**(406)**	**—**	**(88)**	**139**	**125**	**(1,114)**	**(131)**
AFS debt securities:											
Non-agency residential MBS	**597**	**—**	**90**	**—**	**—**	**—**	**(21)**	**206**	**(304)**	**568**	**—**
Non-U.S. securities	**2**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**2**	**—**
Other taxable securities	**7**	**—**	**—**	**—**	**—**	**—**	**(4)**	**—**	**—**	**3**	**—**
Total AFS debt securities	**606**	**—**	**90**	**—**	**—**	**—**	**(25)**	**206**	**(304)**	**573**	**—**
Other debt securities carried at fair value – Non-agency residential MBS	**172**	**49**	**—**	**—**	**—**	**—**	**(8)**	**107**	**(47)**	**273**	**47**
Loans and leases (5)	**338**	**4**	**—**	**—**	**(15)**	**53**	**(25)**	**—**	**—**	**355**	**3**
Loans held-for-sale (5,6)	**542**	**38**	**—**	**10**	**(71)**	**11**	**(103)**	**59**	**—**	**486**	**20**
Other assets (6, 7)	**2,932**	**(154)**	**16**	**—**	**(10)**	**108**	**(341)**	**—**	**—**	**2,551**	**(253)**
Trading account liabilities – Equity securities	**—**	**(2)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(2)**	**(2)**
Trading account liabilities – Corporate securities and other	**(18)**	**7**	**—**	**1**	**(3)**	**—**	**—**	**—**	**—**	**(13)**	**—**
Long-term debt (5)	**(817)**	**(87)**	**(1)**	**—**	**—**	**(13)**	**76**	**(61)**	**1**	**(902)**	**(82)**
Six Months Ended June 30, 2018											
Trading account assets:											
Corporate securities, trading loans and other	$ 1,864	$ (28)	$ (1)	$ 274	$ (211)	$ —	$ (213)	$ 248	$ (295)	$ 1,638	$ (76)
Equity securities	235	9	—	8	(11)	—	(4)	30	(39)	228	9
Non-U.S. sovereign debt	556	29	(42)	7	(50)	—	(8)	8	(132)	368	28
Mortgage trading loans, ABS and other MBS	1,498	141	3	317	(576)	—	(107)	350	(103)	1,523	81
Total trading account assets	4,153	151	(40)	606	(848)	—	(332)	636	(569)	3,757	42
Net derivative assets (4)	(1,714)	256	—	348	(853)	—	377	67	(69)	(1,588)	325
AFS debt securities:											
Non-agency residential MBS	—	8	(14)	—	—	—	—	459	—	453	—
Non-U.S. securities	25	—	(1)	—	(10)	—	(14)	3	—	3	—
Other taxable securities	509	2	(2)	—	—	—	(10)	60	(460)	99	—
Tax-exempt securities	469	—	—	—	—	—	—	1	(469)	1	—
Total AFS debt securities (8)	1,003	10	(17)	—	(10)	—	(24)	523	(929)	556	—
Other debt securities carried at fair value – Non-agency residential MBS	—	(4)	—	—	(7)	—	—	298	—	287	5
Loans and leases (5)	571	(20)	—	—	(9)	—	(49)	—	—	493	(19)
Loans held-for-sale (5)	690	12	(27)	12	—	—	(78)	—	(32)	577	5
Other assets (6,7,8)	2,425	268	—	2	(46)	52	(411)	929	(35)	3,184	145
Trading account liabilities – Corporate securities and other	(24)	2	—	—	(11)	(2)	—	—	—	(35)	1
Accrued expenses and other liabilities (5)	(8)	—	—	—	—	—	8	—	—	—	—
Long-term debt (5)	(1,863)	86	3	9	—	(120)	323	(147)	484	(1,225)	51

(1) Assets (liabilities). For assets, increase (decrease) to Level 3 and for liabilities, (increase) decrease to Level 3.
(2) Includes gains (losses) reported in earnings in the following income statement line items: Trading account assets/liabilities - predominantly trading account income; Net derivative assets - trading account income and other income; Other debt securities carried at fair value - other income; Loans and leases - other income; Loans held-for-sale - other income; Other assets - primarily other income related to MSRs; Long-term debt - primarily trading account income. For MSRs, the amounts reflect the changes in modeled MSR fair value due to observed changes in interest rates, volatility, spreads and the shape of the forward swap curve, and periodic adjustments to the valuation model to reflect changes in the modeled relationships between inputs and projected cash flows, as well as changes in cash flow assumptions including cost to service.
(3) Includes unrealized gains (losses) in OCI on AFS debt securities, foreign currency translation adjustments and the impact of changes in the Corporation's credit spreads on long-term debt accounted for under the fair value option. Total gains (losses) in OCI include net unrealized gains of $112 million related to financial instruments still held at June 30, 2019.
(4) Net derivative assets include derivative assets of $3.4 billion and $4.5 billion and derivative liabilities of $4.5 billion and $6.1 billion at June 30, 2019 and 2018.
(5) Amounts represent instruments that are accounted for under the fair value option.
(6) Issuances represent loan originations and MSRs recognized following securitizations or whole-loan sales.
(7) Settlements primarily represent the net change in fair value of the MSR asset due to the recognition of modeled cash flows and the passage of time.
(8) Transfers out of AFS debt securities and into other assets relate to the reclassification of certain securities.

The following tables present information about significant unobservable inputs related to the Corporation's material categories of Level 3 financial assets and liabilities at June 30, 2019 and December 31, 2018.

Quantitative Information about Level 3 Fair Value Measurements at June 30, 2019

(Dollars in millions)

Financial Instrument	Fair Value	Valuation Technique	Inputs: Significant Unobservable Inputs	Inputs: Ranges of Inputs	Inputs: Weighted Average [(1)]
Loans and Securities [(2)]					
Instruments backed by residential real estate assets	**$ 1,633**		Yield	0% to 25%	6%
Trading account assets – Mortgage trading loans, ABS and other MBS	431		Prepayment speed	1% to 27% CPR	17% CPR
Loans and leases	355	Discounted cash flow, Market comparables	Default rate	0% to 3% CDR	1% CDR
Loans held-for-sale	1		Loss severity	0% to 48%	15%
AFS debt securities, primarily non-agency residential	573		Price	$0 to $151	$99
Other debt securities carried at fair value - Non-agency residential	273				
Instruments backed by commercial real estate assets	**$ 264**		Yield	0% to 25%	6%
Trading account assets – Corporate securities, trading loans and other	198	Discounted cash flow	Price	$0 to $100	$66
Trading account assets – Mortgage trading loans, ABS and other MBS	66				
Commercial loans, debt securities and other	**$ 3,053**		Yield	0% to 13%	6%
Trading account assets – Corporate securities, trading loans and other	1,195		Prepayment speed	10% to 20%	14%
Trading account assets – Non-U.S. sovereign debt	481	Discounted cash flow, Market comparables	Default rate	3% to 4%	4%
Trading account assets – Mortgage trading loans, ABS and other MBS	892		Loss severity	35% to 40%	38%
Loans held-for-sale	485		Price	$0 to $149	$67
Other assets, primarily auction rate securities	**$ 851**	Discounted cash flow, Market comparables	Price	$10 to $100	$95
MSRs	**$ 1,700**		Weighted-average life, fixed rate [(5)]	0 to 14 years	5 years
		Discounted cash flow	Weighted-average life, variable rate [(5)]	0 to 9 years	3 years
			Option-adjusted spread, fixed rate	7% to 14%	9%
			Option-adjusted spread, variable rate	9% to 15%	12%
Structured liabilities					
Long-term debt	**$ (902)**		Equity correlation	11% to 100%	63%
		Discounted cash flow, Market comparables, Industry standard derivative pricing [(3)]	Long-dated equity volatilities	6% to 52%	27%
			Price	$0 to $131	$80
Net derivative assets					
Credit derivatives	**$ (14)**		Yield	5%	n/a
			Upfront points	0 to 100 points	68 points
		Discounted cash flow, Stochastic recovery correlation model	Prepayment speed	15% to 100% CPR	38% CPR
			Default rate	1% to 4% CDR	2% CDR
			Loss severity	35%	n/a
			Price	$0 to $138	$93
Equity derivatives	**$ (1,010)**	Industry standard derivative pricing [(3)]	Equity correlation	11% to 100%	63%
			Long-dated equity volatilities	6% to 52%	27%
Commodity derivatives	**$ 1**		Natural gas forward price	$1/MMBtu to $8/MMBtu	$3/MMBtu
		Discounted cash flow, Industry standard derivative pricing [(3)]	Correlation	30% to 66%	66%
			Volatilities	14% to 48%	32%
Interest rate derivatives	**$ (91)**		Correlation (IR/IR)	15% to 70%	51%
		Industry standard derivative pricing [(4)]	Correlation (FX/IR)	0% to 46%	2%
			Long-dated inflation rates	-21% to 35%	5%
			Long-dated inflation volatilities	0% to 1%	1%
Total net derivative assets	**$ (1,114)**				

(1) For loans and securities, structured liabilities and net derivative assets, the weighted average is calculated based upon the absolute fair value of the instruments.
(2) The categories are aggregated based upon product type which differs from financial statement classification. The following is a reconciliation to the line items in the table on page 86: Trading account assets – Corporate securities, trading loans and other of $1.4 billion, Trading account assets – Non-U.S. sovereign debt of $481 million, Trading account assets – Mortgage trading loans, ABS and other MBS of $1.4 billion, AFS debt securities of $573 million, Other debt securities carried at fair value - Non-agency residential of $273 million, Other assets, including MSRs, of $2.6 billion, Loans and leases of $355 million and LHFS of $486 million.
(3) Includes models such as Monte Carlo simulation and Black-Scholes.
(4) Includes models such as Monte Carlo simulation, Black-Scholes and other methods that model the joint dynamics of interest, inflation and foreign exchange rates.
(5) The weighted-average life is a product of changes in market rates of interest, prepayment rates and other model and cash flow assumptions.
CPR = Constant Prepayment Rate
CDR = Constant Default Rate
MMBtu = Million British thermal units
IR = Interest Rate
FX = Foreign Exchange
n/a = not applicable

Quantitative Information about Level 3 Fair Value Measurements at December 31, 2018

(Dollars in millions)

Financial Instrument	Fair Value	Valuation Technique	Inputs: Significant Unobservable Inputs	Inputs: Ranges of Inputs	Inputs: Weighted Average [(1)]
Loans and Securities [(2)]					
Instruments backed by residential real estate assets	**$ 1,536**	Discounted cash flow, Market comparables	Yield	0% to 25%	8%
Trading account assets – Mortgage trading loans, ABS and other MBS	419		Prepayment speed	0% to 21% CPR	12% CPR
Loans and leases	338		Default rate	0% to 3% CDR	1% CDR
Loans held-for-sale	1		Loss severity	0% to 51%	17%
AFS debt securities, primarily non-agency residential	606		Price	$0 to $128	$72
Other debt securities carried at fair value - Non-agency residential	172				
Instruments backed by commercial real estate assets	**$ 291**	Discounted cash flow	Yield	0% to 25%	7%
Trading account assets – Corporate securities, trading loans and other	200		Price	$0 to $100	$79
Trading account assets – Mortgage trading loans, ABS and other MBS	91				
Commercial loans, debt securities and other	**$ 3,489**	Discounted cash flow, Market comparables	Yield	1% to 18%	13%
Trading account assets – Corporate securities, trading loans and other	1,358		Prepayment speed	10% to 20%	15%
Trading account assets – Non-U.S. sovereign debt	465		Default rate	3% to 4%	4%
Trading account assets – Mortgage trading loans, ABS and other MBS	1,125		Loss severity	35% to 40%	38%
Loans held-for-sale	541		Price	$0 to $141	$68
Other assets, primarily auction rate securities	**$ 890**	Discounted cash flow, Market comparables	Price	$10 to $100	$95
MSRs	**$ 2,042**	Discounted cash flow	Weighted-average life, fixed rate [(5)]	0 to 14 years	5 years
			Weighted-average life, variable rate [(5)]	0 to 10 years	3 years
			Option-adjusted spread, fixed rate	7% to 14%	9%
			Option-adjusted spread, variable rate	9% to 15%	12%
Structured liabilities					
Long-term debt	**$ (817)**	Discounted cash flow, Market comparables, Industry standard derivative pricing [(3)]	Equity correlation	11% to 100%	67%
			Long-dated equity volatilities	4% to 84%	32%
			Yield	7% to 18%	16%
			Price	$0 to $100	$72
Net derivative assets					
Credit derivatives	**$ (565)**	Discounted cash flow, Stochastic recovery correlation model	Yield	0% to 5%	4%
			Upfront points	0 points to 100 points	70 points
			Credit correlation	70%	n/a
			Prepayment speed	15% to 20% CPR	15% CPR
			Default rate	1% to 4% CDR	2% CDR
			Loss severity	35%	n/a
			Price	$0 to $138	$93
Equity derivatives	**$ (348)**	Industry standard derivative pricing [(3)]	Equity correlation	11% to 100%	67%
			Long-dated equity volatilities	4% to 84%	32%
Commodity derivatives	**$ 10**	Discounted cash flow, Industry standard derivative pricing [(3)]	Natural gas forward price	$1/MMBtu to $12/MMBtu	$3/MMBtu
			Correlation	38% to 87%	71%
			Volatilities	15% to 132%	38%
Interest rate derivatives	**$ (32)**	Industry standard derivative pricing [(4)]	Correlation (IR/IR)	15% to 70%	61%
			Correlation (FX/IR)	0% to 46%	1%
			Long-dated inflation rates	-20% to 38%	2%
			Long-dated inflation volatilities	0% to 1%	1%
Total net derivative assets	**$ (935)**				

(1) For loans and securities, structured liabilities and net derivative assets, the weighted average is calculated based upon the absolute fair value of the instruments.
(2) The categories are aggregated based upon product type which differs from financial statement classification. The following is a reconciliation to the line items in the table on page 87: Trading account assets – Corporate securities, trading loans and other of $1.6 billion, Trading account assets – Non-U.S. sovereign debt of $465 million, Trading account assets – Mortgage trading loans, ABS and other MBS of $1.6 billion, AFS debt securities of $606 million, Other debt securities carried at fair value - Non-agency residential of $172 million, Other assets, including MSRs, of 2.9 billion, Loans and leases of $338 million and LHFS of $542 million.
(3) Includes models such as Monte Carlo simulation and Black-Scholes.
(4) Includes models such as Monte Carlo simulation, Black-Scholes and other methods that model the joint dynamics of interest, inflation and foreign exchange rates.
(5) The weighted-average life is a product of changes in market rates of interest, prepayment rates and other model and cash flow assumptions.
CPR = Constant Prepayment Rate
CDR = Constant Default Rate
MMBtu = Million British thermal units
IR = Interest Rate
FX = Foreign Exchange
n/a = not applicable

Uncertainty of Fair Value Measurements from Unobservable Inputs

For information on the types of instruments, valuation approaches and the impact of changes in unobservable inputs used in Level 3 measurements, see *Note 20 – Fair Value Measurements* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Nonrecurring Fair Value

The Corporation holds certain assets that are measured at fair value, but only in certain situations (e.g., impairment) and these measurements are referred to herein as nonrecurring. The amounts below represent assets still held as of the reporting date for which a nonrecurring fair value adjustment was recorded during the three and six months ended June 30, 2019 and 2018.

Assets Measured at Fair Value on a Nonrecurring Basis

(Dollars in millions)	June 30, 2019		Three Months Ended June 30, 2019	Six Months Ended June 30, 2019
	Level 2	**Level 3**	**Gains (Losses)**	
Assets				
Loans held-for-sale	**$ 15**	**$ 28**	**$ —**	**$ (1)**
Loans and leases (1)	**—**	**204**	**(40)**	**(73)**
Foreclosed properties (2, 3)	**—**	**21**	**(9)**	**(12)**
Other assets	**142**	**6**	**(15)**	**(29)**
Accrued expenses and other liabilities	**(2)**	**(12)**	**(14)**	**(14)**
	June 30, 2018		Three Months Ended June 30, 2018	Six Months Ended June 30, 2018
Assets				
Loans held-for-sale	$ 179	$ 1	$ —	$ (2)
Loans and leases (1)	—	420	(80)	(156)
Foreclosed properties (2, 3)	15	77	(25)	(32)
Other assets	243	5	(31)	(35)

(1) Includes $18 million and $31 million of losses on loans that were written down to a collateral value of zero during the three and six months ended June 30, 2019 compared to losses of $31 million and $64 million for the same periods in 2018.
(2) Amounts are included in other assets on the Consolidated Balance Sheet and represent the carrying value of foreclosed properties that were written down subsequent to their initial classification as foreclosed properties. Losses on foreclosed properties include losses recorded during the first 90 days after transfer of a loan to foreclosed properties.
(3) Excludes $294 million and $573 million of properties acquired upon foreclosure of certain government-guaranteed loans (principally FHA-insured loans) at June 30, 2019 and 2018.

The table below presents information about significant unobservable inputs related to the Corporation's nonrecurring Level 3 financial assets and liabilities at June 30, 2019 and December 31, 2018. Loans and leases backed by residential real estate assets represent residential mortgages where the loan has been written down to the fair value of the underlying collateral.

Quantitative Information about Nonrecurring Level 3 Fair Value Measurements

			Inputs		
Financial Instrument	**Fair Value**	**Valuation Technique**	**Significant Unobservable Inputs**	**Ranges of Inputs**	**Weighted Average (1)**
(Dollars in millions)			**June 30, 2019**		
Loans and leases backed by residential real estate assets	**$ 204**	Market comparables	OREO discount	13% to 59%	24%
			Costs to sell	8% to 26%	9%
			December 31, 2018		
Loans and leases backed by residential real estate assets	$ 474	Market comparables	OREO discount	13% to 59%	25%
					9%
			Costs to sell	8% to 26%	

(1) The weighted average is calculated based upon the fair value of the loans.

NOTE 16 Fair Value Option

The Corporation elects to account for certain financial instruments under the fair value option. For more information on the primary financial instruments for which the fair value option elections have been made, see *Note 21 – Fair Value Option* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K. The following tables provide information about the fair value carrying amount and the contractual principal outstanding of assets and liabilities accounted for under the fair value option at June 30, 2019 and December 31, 2018, and information about where changes in the fair value of assets and liabilities accounted for under the fair value option are included in the Consolidated Statement of Income for the three and six months ended June 30, 2019 and 2018.

Fair Value Option Elections

	June 30, 2019			December 31, 2018		
(Dollars in millions)	**Fair Value Carrying Amount**	**Contractual Principal Outstanding**	**Fair Value Carrying Amount Less Unpaid Principal**	Fair Value Carrying Amount	Contractual Principal Outstanding	Fair Value Carrying Amount Less Unpaid Principal
Federal funds sold and securities borrowed or purchased under agreements to resell	**$ 54,257**	**$ 54,238**	**$ 19**	$ 56,399	$ 56,376	$ 23
Loans reported as trading account assets (1)	**6,122**	**13,445**	**(7,323)**	6,195	13,088	(6,893)
Trading inventory – other	**18,145**	**n/a**	**n/a**	13,778	n/a	n/a
Consumer and commercial loans	**7,863**	**7,895**	**(32)**	4,349	4,399	(50)
Loans held-for-sale (1)	**2,388**	**3,607**	**(1,219)**	2,942	4,749	(1,807)
Other assets	**4**	**n/a**	**n/a**	3	n/a	n/a
Long-term deposits	**604**	**571**	**33**	492	454	38
Federal funds purchased and securities loaned or sold under agreements to repurchase	**19,866**	**19,868**	**(2)**	28,875	28,881	(6)
Short-term borrowings	**2,403**	**2,403**	**—**	1,648	1,648	—
Unfunded loan commitments	**128**	**n/a**	**n/a**	169	n/a	n/a
Long-term debt (2)	**35,198**	**35,054**	**144**	27,689	29,198	(1,509)

(1) A significant portion of the loans reported as trading account assets and LHFS are distressed loans that were purchased at a deep discount to par, and the remainder are loans with a fair value near contractual principal outstanding.
(2) Includes structured liabilities with a fair value of $34.8 billion and $27.3 billion, and contractual principal outstanding of $34.7 billion and $28.8 billion at June 30, 2019 and December 31, 2018.
n/a = not applicable

Gains (Losses) Relating to Assets and Liabilities Accounted for Under the Fair Value Option

	Three Months Ended June 30					
	2019			2018		
(Dollars in millions)	**Trading Account Income**	**Other Income**	**Total**	Trading Account Income	Other Income	Total
Loans reported as trading account assets (1)	**$ 72**	**$ —**	**$ 72**	$ (32)	$ —	$ (32)
Trading inventory – other (2)	**1,823**	**—**	**1,823**	1,361	—	1,361
Consumer and commercial loans (1)	**16**	**(1)**	**15**	19	(11)	8
Long-term debt (3, 4)	**(205)**	**(22)**	**(227)**	535	(15)	520
Other (5)	**(2)**	**15**	**13**	6	14	20
Total	**$ 1,704**	**$ (8)**	**$ 1,696**	$ 1,889	$ (12)	$ 1,877
	Six Months Ended June 30					
	2019			2018		
Loans reported as trading account assets (1)	**$ 163**	**$ —**	**$ 163**	$ 71	$ —	$ 71
Trading inventory – other (2)	**4,367**	**—**	**4,367**	1,956	—	1,956
Consumer and commercial loans (1)	**17**	**17**	**34**	125	(32)	93
Long-term debt (3, 4)	**(1,285)**	**(45)**	**(1,330)**	1,354	(56)	1,298
Other (5)	**9**	**103**	**112**	14	25	39
Total	**$ 3,271**	**$ 75**	**$ 3,346**	$ 3,520	$ (63)	$ 3,457

(1) Gains (losses) related to borrower-specific credit risk were not significant.
(2) The gains in trading account income are primarily offset by losses on trading liabilities that hedge these assets.
(3) The net gains (losses) in trading account income relate to the embedded derivatives in structured liabilities and are typically offset by gains (losses) on derivatives and securities that hedge these liabilities.
(4) For the cumulative impact of changes in the Corporation's own credit spreads and the amount recognized in accumulated OCI, see *Note 14 – Accumulated Other Comprehensive Income (Loss)*. For more information on how the Corporation's own credit spread is determined, see *Note 20 – Fair Value Measurements* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.
(5) Includes gains (losses) on federal funds sold and securities borrowed or purchased under agreements to resell, LHFS, long-term deposits, federal funds purchased and securities loaned or sold under agreements to repurchase, short-term borrowings and unfunded loan commitments.

NOTE 17 Fair Value of Financial Instruments

The following disclosures include financial instruments that are not carried at fair value or only a portion of the ending balance is carried at fair value on the Consolidated Balance Sheet. Certain loans, deposits, long-term debt and unfunded lending commitments are accounted for under the fair value option. For additional information, see *Note 21 – Fair Value Option* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Fair Value of Financial Instruments

The carrying values and fair values by fair value hierarchy of certain financial instruments where only a portion of the ending balance was carried at fair value at June 30, 2019 and December 31, 2018 are presented in the following table.

Fair Value of Financial Instruments

	Carrying Value	Fair Value Level 2	Fair Value Level 3	Fair Value Total
(Dollars in millions)	June 30, 2019			
Financial assets				
Loans	**$ 930,320**	**$ 63,773**	**$ 898,649**	**$ 962,422**
Loans held-for-sale	**5,416**	**4,562**	**854**	**5,416**
Financial liabilities				
Deposits (1)	**1,375,093**	**1,375,140**	**—**	**1,375,140**
Long-term debt	**238,011**	**242,358**	**902**	**243,260**
Commercial unfunded lending commitments (2)	**938**	**132**	**4,796**	**4,928**
	December 31, 2018			
Financial assets				
Loans	$ 911,520	$ 58,228	$ 859,160	$ 917,388
Loans held-for-sale	10,367	9,592	775	10,367
Financial liabilities				
Deposits (1)	1,381,476	1,381,239	—	1,381,239
Long-term debt	229,392	230,019	817	230,836
Commercial unfunded lending commitments (2)	966	169	5,558	5,727

(1) Includes demand deposits of $524.4 billion and $531.9 billion with no stated maturities at June 30, 2019 and December 31, 2018.

(2) The carrying value of commercial unfunded lending commitments is included in accrued expenses and other liabilities on the Consolidated Balance Sheet. The Corporation does not estimate the fair value of consumer unfunded lending commitments because, in many instances, the Corporation can reduce or cancel these commitments by providing notice to the borrower. For more information on commitments, see *Note 11 – Commitments and Contingencies*.

NOTE 18 Business Segment Information

The Corporation reports its results of operations through the following four business segments: *Consumer Banking, Global Wealth & Investment Management, Global Banking* and *Global Markets*, with the remaining operations recorded in *All Other*. For additional information, see *Note 23 – Business Segment Information* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K. The following tables present net income (loss) and the components thereto (with net interest income on an FTE basis for the business segments, *All Other* and the total Corporation) for the three and six months ended June 30, 2019 and 2018, and total assets at June 30, 2019 and 2018 for each business segment, as well as *All Other,* including a reconciliation of the four business segments' total revenue, net of interest expense, on an FTE basis, and net income to the Consolidated Statement of Income, and total assets to the Consolidated Balance Sheet.

Results of Business Segments and All Other

At and for the three months ended June 30	**Total Corporation (1)**		**Consumer Banking**		**Global Wealth & Investment Management**	
(Dollars in millions)	**2019**	2018	**2019**	2018	**2019**	2018
Net interest income	**$ 12,338**	$ 11,982	**$ 7,116**	$ 6,593	**$ 1,624**	$ 1,538
Noninterest income	**10,895**	10,721	**2,601**	2,640	**3,276**	3,204
Total revenue, net of interest expense	**23,233**	22,703	**9,717**	9,233	**4,900**	4,742
Provision for credit losses	**857**	827	**947**	944	**21**	12
Noninterest expense	**13,268**	13,224	**4,407**	4,367	**3,458**	3,427
Income before income taxes	**9,108**	8,652	**4,363**	3,922	**1,421**	1,303
Income tax expense	**1,760**	1,868	**1,069**	1,000	**348**	332
Net income	**$ 7,348**	$ 6,784	**$ 3,294**	$ 2,922	**$ 1,073**	$ 971
Period-end total assets	**$ 2,395,892**	$ 2,291,670	**$ 786,963**	$ 768,188	**$ 287,878**	$ 270,915

	Global Banking		**Global Markets**		**All Other**	
	2019	2018	**2019**	2018	**2019**	2018
Net interest income	**$ 2,709**	$ 2,739	**$ 811**	$ 968	**$ 78**	$ 144
Noninterest income	**2,266**	2,275	**3,334**	3,283	**(582)**	(681)
Total revenue, net of interest expense	**4,975**	5,014	**4,145**	4,251	**(504)**	(537)
Provision for credit losses	**125**	(23)	**5**	(1)	**(241)**	(105)
Noninterest expense	**2,212**	2,185	**2,677**	2,726	**514**	519
Income before income taxes	**2,638**	2,852	**1,463**	1,526	**(777)**	(951)
Income tax expense	**712**	741	**417**	397	**(786)**	(602)
Net income	**$ 1,926**	$ 2,111	**$ 1,046**	$ 1,129	**$ 9**	$ (349)
Period-end total assets	**$ 440,352**	$ 426,448	**$ 674,985**	$ 637,110	**$ 205,714**	$ 189,009

(1) There were no material intersegment revenues.

Results of Business Segments and All Other

At and for the six months ended June 30	Total Corporation (1)		Consumer Banking		Global Wealth & Investment Management	
(Dollars in millions)	**2019**	2018	**2019**	2018	**2019**	2018
Net interest income	**$ 24,866**	$ 23,901	**$ 14,222**	$ 13,070	**$ 3,308**	$ 3,122
Noninterest income	**21,524**	22,022	**5,127**	5,144	**6,412**	6,475
Total revenue, net of interest expense	**46,390**	45,923	**19,349**	18,214	**9,720**	9,597
Provision for credit losses	**1,870**	1,661	**1,921**	1,879	**26**	50
Noninterest expense	**26,492**	27,066	**8,763**	8,915	**6,886**	7,008
Income before income taxes	**18,028**	17,196	**8,665**	7,420	**2,808**	2,539
Income tax expense	**3,369**	3,494	**2,123**	1,893	**688**	647
Net income	**$ 14,659**	$ 13,702	**$ 6,542**	$ 5,527	**$ 2,120**	$ 1,892
Period-end total assets	**$ 2,395,892**	$ 2,291,670	**$ 786,963**	$ 768,188	**$ 287,878**	$ 270,915

	Global Banking		Global Markets		All Other	
	2019	2018	**2019**	2018	**2019**	2018
Net interest income	**$ 5,499**	$ 5,418	**$ 1,764**	$ 1,989	**$ 73**	$ 302
Noninterest income	**4,631**	4,591	**6,562**	7,074	**(1,208)**	(1,262)
Total revenue, net of interest expense	**10,130**	10,009	**8,326**	9,063	**(1,135)**	(960)
Provision for credit losses	**236**	(7)	**(18)**	(4)	**(295)**	(257)
Noninterest expense	**4,478**	4,477	**5,432**	5,651	**933**	1,015
Income before income taxes	**5,416**	5,539	**2,912**	3,416	**(1,773)**	(1,718)
Income tax expense	**1,462**	1,440	**830**	888	**(1,734)**	(1,374)
Net income	**$ 3,954**	$ 4,099	**$ 2,082**	$ 2,528	**$ (39)**	$ (344)
Period-end total assets	**$ 440,352**	$ 426,448	**$ 674,985**	$ 637,110	**$ 205,714**	$ 189,009

(1) There were no material intersegment revenues.

Business Segment Reconciliations

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2019**	2018	**2019**	2018
Segments' total revenue, net of interest expense	**$ 23,737**	$ 23,240	**$ 47,525**	$ 46,883
Adjustments (1):				
ALM activities	**34**	(508)	**47**	(482)
Liquidating businesses, eliminations and other	**(538)**	(29)	**(1,182)**	(478)
FTE basis adjustment	**(149)**	(154)	**(302)**	(304)
Consolidated revenue, net of interest expense	**$ 23,084**	$ 22,549	**$ 46,088**	$ 45,619
Segments' total net income	**7,339**	7,133	**14,698**	14,046
Adjustments, net-of-tax (1):				
ALM activities	**27**	(381)	**46**	(352)
Liquidating businesses, eliminations and other	**(18)**	32	**(85)**	8
Consolidated net income	**$ 7,348**	$ 6,784	**$ 14,659**	$ 13,702

	June 30	
	2019	2018
Segments' total assets	**$ 2,190,178**	$ 2,102,661
Adjustments (1):		
ALM activities, including securities portfolio	**677,337**	630,299
Elimination of segment asset allocations to match liabilities	**(543,995)**	(522,183)
Other	**72,372**	80,893
Consolidated total assets	**$ 2,395,892**	$ 2,291,670

(1) Adjustments include consolidated income, expense and asset amounts not specifically allocated to individual business segments.

The tables below present noninterest income and the components thereto for the three and six months ended June 30, 2019 and 2018 for each business segment, *All Other* and the total Corporation. For more information, see *Note 2 – Net Interest Income and Noninterest Income.*

Noninterest Income by Business Segment and All Other

	Total Corporation		Consumer Banking		Global Wealth & Investment Management	
	Three Months Ended June 30					
(Dollars in millions)	**2019**	2018	**2019**	2018	**2019**	2018
Fees and commissions:						
Card income						
Interchange fees	**$ 968**	$ 1,011	**$ 804**	$ 833	**$ 11**	$ 27
Other card income	**478**	472	**464**	459	**11**	11
Total card income	**1,446**	1,483	**1,268**	1,292	**22**	38
Service charges						
Deposit-related fees	**1,638**	1,680	**1,045**	1,072	**15**	17
Lending-related fees	**265**	274	**—**	—	**—**	—
Total service charges	**1,903**	1,954	**1,045**	1,072	**15**	17
Investment and brokerage services						
Asset management fees	**2,554**	2,513	**36**	37	**2,525**	2,475
Brokerage fees	**916**	945	**39**	43	**438**	462
Total investment and brokerage services	**3,470**	3,458	**75**	80	**2,963**	2,937
Investment banking fees						
Underwriting income	**792**	719	**—**	—	**126**	72
Syndication fees	**291**	400	**—**	—	**—**	—
Financial advisory services	**288**	303	**—**	—	**1**	—
Total investment banking fees	**1,371**	1,422	**—**	—	**127**	72
Total fees and commissions	**8,190**	8,317	**2,388**	2,444	**3,127**	3,064
Trading account income	**2,345**	2,151	**2**	2	**30**	28
Other income	**360**	253	**211**	194	**119**	112
Total noninterest income	**$ 10,895**	$ 10,721	**$ 2,601**	$ 2,640	**$ 3,276**	$ 3,204

	Global Banking		Global Markets		All Other (1)	
	Three Months Ended June 30					
	2019	2018	**2019**	2018	**2019**	2018
Fees and commissions:						
Card income						
Interchange fees	**$ 132**	$ 128	**$ 22**	$ 23	**$ (1)**	$ —
Other card income	**2**	2	**1**	—	**—**	—
Total card income	**134**	130	**23**	23	**(1)**	—
Service charges						
Deposit-related fees	**526**	539	**45**	45	**7**	7
Lending-related fees	**223**	229	**42**	45	**—**	—
Total service charges	**749**	768	**87**	90	**7**	7
Investment and brokerage services						
Asset management fees	**—**	—	**—**	—	**(7)**	1
Brokerage fees	**7**	18	**433**	430	**(1)**	(8)
Total investment and brokerage services	**7**	18	**433**	430	**(8)**	(7)
Investment banking fees						
Underwriting income	**325**	278	**398**	414	**(57)**	(45)
Syndication fees	**138**	196	**153**	203	**—**	1
Financial advisory services	**254**	269	**33**	34	**—**	—
Total investment banking fees	**717**	743	**584**	651	**(57)**	(44)
Total fees and commissions	**1,607**	1,659	**1,127**	1,194	**(59)**	(44)
Trading account income	**56**	64	**1,961**	2,020	**296**	37
Other income	**603**	552	**246**	69	**(819)**	(674)
Total noninterest income	**$ 2,266**	$ 2,275	**$ 3,334**	$ 3,283	**$ (582)**	$ (681)

(1) *All Other* includes eliminations of intercompany transactions.

Noninterest Income by Business Segment and All Other

(Dollars in millions)	Total Corporation 2019	Total Corporation 2018	Consumer Banking 2019	Consumer Banking 2018	Global Wealth & Investment Management 2019	Global Wealth & Investment Management 2018
	Six Months Ended June 30					
Fees and commissions:						
Card income						
Interchange fees	**$ 1,864**	$ 1,925	**$ 1,532**	$ 1,591	**$ 28**	$ 37
Other card income	**957**	960	**933**	935	**20**	21
Total card income	**2,821**	2,885	**2,465**	2,526	**48**	58
Service charges						
Deposit-related fees	**3,218**	3,326	**2,065**	2,116	**33**	36
Lending-related fees	**524**	549	**—**	—	**—**	—
Total service charges	**3,742**	3,875	**2,065**	2,116	**33**	36
Investment and brokerage services						
Asset management fees	**4,994**	5,077	**71**	73	**4,939**	5,004
Brokerage fees	**1,836**	2,045	**77**	89	**866**	973
Total investment and brokerage services	**6,830**	7,122	**148**	162	**5,805**	5,977
Investment banking fees						
Underwriting income	**1,458**	1,460	**—**	—	**206**	156
Syndication fees	**546**	716	**—**	—	**—**	—
Financial advisory services	**631**	599	**—**	—	**1**	1
Total investment banking fees	**2,635**	2,775	**—**	—	**207**	157
Total fees and commissions	**16,028**	16,657	**4,678**	4,804	**6,093**	6,228
Trading account income	**4,683**	4,704	**4**	4	**64**	56
Other income	**813**	661	**445**	336	**255**	191
Total noninterest income	**$ 21,524**	$ 22,022	**$ 5,127**	$ 5,144	**$ 6,412**	$ 6,475

	Global Banking 2019	Global Banking 2018	Global Markets 2019	Global Markets 2018	All Other (1) 2019	All Other (1) 2018
	Six Months Ended June 30					
Fees and commissions:						
Card income						
Interchange fees	**$ 261**	$ 255	**$ 43**	$ 42	**$ —**	$ —
Other card income	**4**	3	**—**	—	**—**	1
Total card income	**265**	258	**43**	42	**—**	1
Service charges						
Deposit-related fees	**1,024**	1,078	**83**	85	**13**	11
Lending-related fees	**438**	454	**86**	95	**—**	—
Total service charges	**1,462**	1,532	**169**	180	**13**	11
Investment and brokerage services						
Asset management fees	**—**	—	**—**	—	**(16)**	—
Brokerage fees	**16**	44	**877**	918	**—**	21
Total investment and brokerage services	**16**	44	**877**	918	**(16)**	21
Investment banking fees						
Underwriting income	**605**	588	**766**	846	**(119)**	(130)
Syndication fees	**264**	354	**282**	362	**—**	—
Financial advisory services	**557**	545	**73**	53	**—**	—
Total investment banking fees	**1,426**	1,487	**1,121**	1,261	**(119)**	(130)
Total fees and commissions	**3,169**	3,321	**2,210**	2,401	**(122)**	(97)
Trading account income	**106**	124	**4,043**	4,577	**466**	(57)
Other income	**1,356**	1,146	**309**	96	**(1,552)**	(1,108)
Total noninterest income	**$ 4,631**	$ 4,591	**$ 6,562**	$ 7,074	**$ (1,208)**	$ (1,262)

(1) *All Other* includes eliminations of intercompany transactions.

Glossary

Alt-A Mortgage – A type of U.S. mortgage that is considered riskier than A-paper, or "prime," and less risky than "subprime," the riskiest category. Typically, Alt-A mortgages are characterized by borrowers with less than full documentation, lower credit scores and higher LTVs.

Assets Under Management (AUM) – The total market value of assets under the investment advisory and/or discretion of *GWIM* which generate asset management fees based on a percentage of the assets' market values. AUM reflects assets that are generally managed for institutional, high net worth and retail clients, and are distributed through various investment products including mutual funds, other commingled vehicles and separate accounts.

Banking Book – All on- and off-balance sheet financial instruments of the Corporation except for those positions that are held for trading purposes.

Brokerage and Other Assets – Non-discretionary client assets which are held in brokerage accounts or held for safekeeping.

Committed Credit Exposure – Any funded portion of a facility plus the unfunded portion of a facility on which the lender is legally bound to advance funds during a specified period under prescribed conditions.

Credit Derivatives – Contractual agreements that provide protection against a specified credit event on one or more referenced obligations.

Credit Valuation Adjustment (CVA) – A portfolio adjustment required to properly reflect the counterparty credit risk exposure as part of the fair value of derivative instruments.

Debit Valuation Adjustment (DVA) – A portfolio adjustment required to properly reflect the Corporation's own credit risk exposure as part of the fair value of derivative instruments and/or structured liabilities.

Funding Valuation Adjustment (FVA) – A portfolio adjustment required to include funding costs on uncollateralized derivatives and derivatives where the Corporation is not permitted to use the collateral it receives.

Interest Rate Lock Commitment (IRLC) – Commitment with a loan applicant in which the loan terms are guaranteed for a designated period of time subject to credit approval.

Letter of Credit – A document issued on behalf of a customer to a third party promising to pay the third party upon presentation of specified documents. A letter of credit effectively substitutes the issuer's credit for that of the customer.

Loan-to-value (LTV) – A commonly used credit quality metric. LTV is calculated as the outstanding carrying value of the loan divided by the estimated value of the property securing the loan.

Margin Receivable – An extension of credit secured by eligible securities in certain brokerage accounts.

Matched Book – Repurchase and resale agreements or securities borrowed and loaned transactions where the overall asset and liability position is similar in size and/or maturity. Generally, these are entered into to accommodate customers where the Corporation earns the interest rate spread.

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 Yield – Net interest income divided by average total interest-earning assets.

Nonperforming Loans and Leases – Includes loans and leases that have been placed on nonaccrual status, including nonaccruing loans whose contractual terms have been restructured in a manner that grants a concession to a borrower experiencing financial difficulties.

Operating Margin – Income before income taxes divided by total revenue, net of interest expense.

Prompt Corrective Action (PCA) – A framework established by the U.S. banking regulators requiring banks to maintain certain levels of regulatory capital ratios, comprised of five categories of capitalization: "well capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized" and "critically undercapitalized." Insured depository institutions that fail to meet certain of these capital levels are subject to increasingly strict limits on their activities, including their ability to make capital distributions, pay management compensation, grow assets and take other actions.

Subprime Loans – Although a standard industry definition for subprime loans (including subprime mortgage loans) does not exist, the Corporation defines subprime loans as specific product offerings for higher risk borrowers.

Troubled Debt Restructurings (TDRs) – Loans whose contractual terms have been restructured in a manner that grants a concession to a borrower experiencing financial difficulties. Certain consumer loans for which a binding offer to restructure has been extended are also classified as TDRs.

Value-at-Risk (VaR) – VaR is a model that simulates the value of a portfolio under a range of hypothetical scenarios in order to generate a distribution of potential gains and losses. VaR represents the loss the portfolio is expected to experience with a given confidence level based on historical data. A VaR model is an effective tool in estimating ranges of potential gains and losses on our trading portfolios.

Acronyms

ABS	Asset-backed securities
AFS	Available-for-sale
ALM	Asset and liability management
ARR	Alternative reference rates
AUM	Assets under management
BANA	Bank of America, National Association
BHC	Bank holding company
BofAS	BofA Securities, Inc.
BofASE	BofA Securities Europe SA
bps	basis points
CCAR	Comprehensive Capital Analysis and Review
CDO	Collateralized debt obligation
CET1	Common equity tier 1
CFTC	Commodity Futures Trading Commission
CLTV	Combined loan-to-value
CVA	Credit valuation adjustment
DVA	Debit valuation adjustment
EPS	Earnings per common share
EU	European Union
FDIC	Federal Deposit Insurance Corporation
FHA	Federal Housing Administration
FHLB	Federal Home Loan Bank
FHLMC	Freddie Mac
FICC	Fixed-income, currencies and commodities
FICO	Fair Isaac Corporation (credit score)
FNMA	Fannie Mae
FTE	Fully taxable-equivalent
FVA	Funding valuation adjustment
GAAP	Accounting principles generally accepted in the United States of America
GLS	Global Liquidity Sources
GNMA	Government National Mortgage Association
GSE	Government-sponsored enterprise
G-SIB	Global systemically important bank
GWIM	Global Wealth & Investment Management
HELOC	Home equity line of credit
HQLA	High Quality Liquid Assets
HTM	Held-to-maturity
IBOR	InterBank Offered Rates
IRLC	Interest rate lock commitment
ISDA	International Swaps and Derivatives Association, Inc.
LCR	Liquidity Coverage Ratio
LHFS	Loans held-for-sale
LIBOR	London InterBank Offered Rate
LTV	Loan-to-value
MBS	Mortgage-backed securities
MD&A	Management's Discussion and Analysis of Financial Condition and Results of Operations
MLGWM	Merrill Lynch Global Wealth Management
MLI	Merrill Lynch International
MLPCC	Merrill Lynch Professional Clearing Corp
MLPF&S	Merrill Lynch, Pierce, Fenner & Smith Incorporated
MSA	Metropolitan Statistical Area
MSR	Mortgage servicing right
OCI	Other comprehensive income
OREO	Other real estate owned
OTC	Over-the-counter
OTTI	Other-than-temporary impairment
PCA	Prompt Corrective Action
PCI	Purchased credit-impaired
RMBS	Residential mortgage-backed securities
SBLC	Standby letter of credit
SBSDs	Security-based swap dealers
SEC	Securities and Exchange Commission
SLR	Supplementary leverage ratio
TDR	Troubled debt restructurings
TLAC	Total loss-absorbing capacity
VaR	Value-at-Risk
VIE	Variable interest entity

Part II. Other Information
Bank of America Corporation and Subsidiaries

Item 1. Legal Proceedings
See Litigation and Regulatory Matters in *Note 11 – Commitments and Contingencies* to the Consolidated Financial Statements, which is incorporated by reference in this Item 1, for litigation and regulatory disclosure that supplements the disclosure in *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2018 Annual Report on Form 10-K.

Item 1A. Risk Factors
There are no material changes from the risk factors set forth under Part 1, Item 1A. Risk Factors of the Corporation's 2018 Annual Report on Form 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds
The table below presents share repurchase activity for the three months ended June 30, 2019. The primary source of funds for cash distributions by the Corporation to its shareholders is dividends received from its banking subsidiaries. Each of the banking subsidiaries is subject to various regulatory policies and requirements relating to the payment of dividends, including requirements to maintain capital above regulatory minimums. All of the Corporation's preferred stock outstanding has preference over the Corporation's common stock with respect to payment of dividends.

(Dollars in millions, except per share information; shares in thousands)	Total Common Shares Repurchased (1)	Weighted-Average Per Share Price	Total Shares Purchased as Part of Publicly Announced Programs	Remaining Buyback Authority Amounts (2,3)
April 1 - 30, 2019	70,656	$ 29.41	70,648	$ 4,443
May 1 - 31, 2019	86,276	29.09	86,274	1,933
June 1 - 30, 2019	68,947	27.83	68,946	14
Three months ended June 30, 2019	**225,879**	**28.81**	**225,868**	

(1) Includes shares of the Corporation's common stock acquired by the Corporation in connection with satisfaction of tax withholding obligations on vested restricted stock or restricted stock units and certain forfeitures and terminations of employment-related awards and for potential re-issuance to certain employees under equity incentive plans.
(2) On February 7, 2019, the Corporation announced that the Board authorized the repurchase of an additional $2.5 billion of common stock through June 30, 2019. Amounts shown include shares repurchased under this additional repurchase authority in addition to the previously announced repurchases associated with the 2018 CCAR capital plan. During the three months ended June 30, 2019, pursuant to the Board's authorization, the Corporation repurchased $6.5 billion of common stock, which included common stock to offset equity-based compensation awards. For additional information, see *Note 12 – Shareholders' Equity* to the Consolidated Financial Statements.
(3) The remaining buyback authority amounts in this column expired on June 30, 2019.

The Corporation did not have any unregistered sales of equity securities during the three months ended June 30, 2019.

Item 5. Other Information
In connection with the Corporation's merchant services joint venture, the Corporation expects to incur a non-cash, pretax impairment charge of approximately $1.7 billion to $2.1 billion in the third quarter of 2019. See Executive Summary – Recent Developments – Merchant Services Joint Venture in Management's Discussion and Analysis of Financial Condition and Results of Operations to this Form 10-Q for the quarter ended June 30, 2019, which is incorporated by reference in this Item 5.

Item 6. Exhibits

Exhibit No.	Description	Notes	Incorporated by Reference Form	Exhibit	Filing Date	File No.
3(a)	Amended and Restated Certificate of Incorporation as in effect on the date hereof	1				
3(b)	Amended and Restated Bylaws of the Corporation as in effect on the date hereof		8-K	3.1	3/20/15	1-6523
10(a)	Second Amendment to the Bank of America Corporation Key Employee Equity Plan	2	8-K	10.1	4/24/19	1-6523
10(b)	Form of Aircraft Time Sharing Agreement (Multiple Aircraft) between Bank of America, N.A. and certain executive officers of the Corporation, including certain Named Executive Officers	1,2				
31(a)	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	1				
31(b)	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	1				
32(a)	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	1				
32(b)	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	1				
101.INS	XBRL Instance Document	3				
101.SCH	XBRL Taxonomy Extension Schema Document	1				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	1				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	1				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	1				
101.DEF	XBRL Taxonomy Extension Definitions Linkbase Document	1				

(1) Filed herewith.
(2) Exhibit is a management contract or compensatory plan or arrangement
(3) The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.

Signature

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

Bank of America Corporation
Registrant

Date: July 29, 2019

/s/ Rudolf A. Bless

Rudolf A. Bless
Chief Accounting Officer