BANK OF AMERICA CORP /DE/
Form 10-Q
October 30, 2017

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q
(Mark One)
[ü] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Quarterly Period Ended September 30, 2017
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:
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 ü No
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files).
Yes ü No
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 (check one).

Large accelerated filer ü	Accelerated filer	Non-accelerated filer (do not check if a smaller reporting company)	Smaller reporting company

Emerging growth company
Yes No ü
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.
Yes No
Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2).
Yes No ü
On October 27, 2017, there were 10,430,613,675 shares of Bank of America Corporation Common Stock outstanding.

Bank of America Corporation and Subsidiaries
September 30, 2017
Form 10-Q
INDEX
Part I. Financial Information

Item 1. Financial Statements	Page
Consolidated Statement of Income	68
Consolidated Statement of Comprehensive Income	69
Consolidated Balance Sheet	70
Consolidated Statement of Changes in Shareholders' Equity	72
Consolidated Statement of Cash Flows	73
Notes to Consolidated Financial Statements	74
Note 1 – Summary of Significant Accounting Principles	74
Note 2 – Derivatives	75
Note 3 – Securities	83
Note 4 – Outstanding Loans and Leases	87
Note 5 – Allowance for Credit Losses	98
Note 6 – Securitizations and Other Variable Interest Entities	100
Note 7 – Representations and Warranties Obligations and Corporate Guarantees	104
Note 8 – Goodwill and Intangible Assets	106
Note 9 – Federal Funds Sold or Purchased, Securities Financing Agreements and Short-term Borrowings	107
Note 10 – Commitments and Contingencies	109
Note 11 – Shareholders’ Equity	111
Note 12 – Accumulated Other Comprehensive Income (Loss)	112
Note 13 – Earnings Per Common Share	113
Note 14 – Fair Value Measurements	113
Note 15 – Fair Value Option	123
Note 16 – Fair Value of Financial Instruments	125
Note 17 – Business Segment Information	125
Glossary	128

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	
Executive Summary	3
Recent Events	3
Financial Highlights	4
Supplemental Financial Data	11
Business Segment Operations	14
Consumer Banking	14
Global Wealth & Investment Management	18
Global Banking	21
Global Markets	24
All Other	26
Off-Balance Sheet Arrangements and Contractual Obligations	27
Managing Risk	28
Capital Management	28
Liquidity Risk	35
Credit Risk Management	38
	39

Consumer Portfolio Credit Risk Management	
Commercial Portfolio Credit Risk Management	48
Non-U.S. Portfolio	56
Provision for Credit Losses	57
Allowance for Credit Losses	57
Market Risk Management	60
Trading Risk Management	60
Interest Rate Risk Management for the Banking Book	63
Mortgage Banking Risk Management	66
Complex Accounting Estimates	66
Non-GAAP Reconciliations	67
Item 3. Quantitative and Qualitative Disclosures about Market Risk	67
Item 4. Controls and Procedures	67

Part II. Other Information

Item 1. Legal Proceedings	131
Item 1A. Risk Factors	131
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	131
Item 6. Exhibits	132
Signature	132

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,” “belie “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, 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 2016 Annual Report on Form 10-K and in any of the Corporation’s subsequent Securities and Exchange Commission filings: potential claims, damages, penalties, fines and reputational damage resulting from pending or future litigation, regulatory proceedings and enforcement actions, including inquiries into our retail sales practices, and the possibility that amounts may be in excess of the Corporation’s recorded liability and estimated range of possible loss for litigation exposures; the possibility that the Corporation could face increased servicing, securities, fraud, indemnity, contribution or other claims from one or more counterparties, including trustees, purchasers of loans, underwriters, issuers, other parties involved in securitizations, monolines or private-label and other investors; the possibility that future representations and warranties losses may occur in excess of the Corporation’s recorded liability and estimated range of possible loss for its representations and warranties exposures; 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; 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, currency exchange rates

and economic conditions; the impact on the Corporation's business, financial condition and results of operations of a potential higher interest rate environment; 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 impact on the Corporation’s business, financial condition and results of operations from a protracted period of lower oil prices or ongoing volatility with respect to oil prices; the Corporation's ability to achieve its expense targets or net interest income expectations or other projections or expectations; adverse changes to the Corporation’s credit ratings from the major credit rating agencies; estimates of the fair value of certain of the Corporation’s assets and liabilities; uncertainty regarding the content, timing and impact of regulatory capital and liquidity requirements, including the approval of our internal models methodology for calculating counterparty credit risk for derivatives; the potential impact of total loss-absorbing capacity requirements; potential adverse changes to our global systemically important bank surcharge; the potential impact of Federal Reserve actions on the Corporation’s capital plans; the possible impact of the Corporation's failure to remediate shortcomings identified by banking regulators in the Corporation's Resolution Plan or failure to take actions identified therein; 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; and other similar 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 the 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 September 30, 2017, the Corporation had approximately $2.3 trillion in assets and a headcount of approximately 210,000 employees. Headcount remained relatively unchanged since December 31, 2016.

As of September 30, 2017, we operated in all 50 states, the District of Columbia, the U.S. Virgin Islands, Puerto Rico and more than 35 countries. Our retail banking footprint covers approximately 83 percent of the U.S. population, and we serve approximately 47 million consumer and small business relationships with approximately 4,500 retail financial centers, approximately 16,000 ATMs, and leading digital banking platforms (www.bankofamerica.com) with approximately 34 million active users, including approximately 24 million mobile active users. We offer industry-leading support to approximately three million small business owners. Our wealth management businesses, with client balances of approximately $2.7 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.

Third Quarter 2017 Economic and Business Environment

U.S. macroeconomic trends in the third quarter were characterized by a softening in economic growth and low inflation. GDP advanced at a slower pace than the previous quarter. At the same time, inflation remained subdued overall despite some energy-related pressure stemming from the hurricanes that impacted the southern U.S.

Despite sustained growth in the third quarter, the hurricanes added uncertainty to economic forecasts and distorted economic data releases. As a result of the hurricanes, there was an estimated 0.1 to 0.5 percent reduction from annualized GDP growth. Consumer spending slowed in August but recovered, especially vehicle sales, the following month. Business investment in equipment remained buoyant. While nonfarm payroll growth decelerated, the unemployment rate remained low. Despite tight labor market conditions, wage gains were modest.

The Federal Reserve, as expected, kept its target federal funds rate corridor at 1 to 1.25 percent, while announcing that balance

sheet normalization would begin in October. U.S. equities rose in the quarter, in part due to improvement in corporate earnings and despite the realization that domestic fiscal policy changes will likely take longer than previously expected. Despite a late rally, the U.S. dollar index fell primarily on the strength of the euro. Amid a weaker dollar, gold and oil prices both rose. The U.S. yield curve flattened modestly while interest rates increased.

Abroad, eurozone recovery remained robust in the third quarter, maintaining momentum following its best quarter in two years. The more robust economic momentum has failed to translate into stronger inflationary pressures, which remained depressed over the quarter. As a result, the European Central Bank remained cautious about the outlook for monetary policy and it has been carefully evaluating how to extend the ongoing quantitative easing program into next year.

Many survey indicators suggest that the subdued momentum from the first half of the year in the United Kingdom (U.K.) economy has extended into the third quarter. At the same time, inflation continued in an upward trend and reached the highest level since 2012, well above the Bank of England target, driven by the pass-through from the sterling depreciation that followed the Brexit referendum.

In Japan, business surveys suggest that moderate economic momentum remained intact in the third quarter. In China, the service sector remained a key driver of economic growth. The yuan had a volatile third quarter, reaching a one-year high in September with Chinese foreign exchange reserves rising steadily over the quarter.

Recent Events

Capital Management

During the third quarter of 2017, we repurchased approximately $3.0 billion of common stock pursuant to the Board's 2017 repurchase authorization of $12.9 billion announced on June 28, 2017. For additional information, see Capital Management on page 28. On July 26, 2017, the Board declared a quarterly common stock dividend of $0.12 per share, payable on September 29, 2017 to shareholders of record as of September 1, 2017.

Series T Preferred Stock

In connection with an investment in the Corporation’s Series T 6% Non-cumulative preferred stock (Series T) in 2011, the Series T holders also received warrants to purchase 700 million shares of the Corporation’s common stock at an exercise price of $7.142857 per share. On August 24, 2017, the Series T holders exercised the warrants and acquired the 700 million shares of our common stock using the Series T preferred stock as consideration for the exercise price, which increased the number of common shares outstanding, but had no effect on diluted earnings per share as this conversion had been included in the Corporation’s diluted earnings per share calculation under the applicable accounting guidance. The carrying amount of the Series T was $2.9 billion and, upon conversion, was recorded as additional paid-in capital, increasing the Common equity tier 1 capital ratio by 20 basis points.

Selected Financial Data
Table 1 provides selected consolidated financial data for the three and nine months ended September 30, 2017 and 2016, and at September 30, 2017 and December 31, 2016.

Table 1 Selected Financial Data

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions, except per share information)	2017	2016	2017	2016
Income statement				
Revenue, net of interest expense	$21,839	$21,635	$66,916	$63,711
Net income	5,587	4,955	15,712	13,210
Diluted earnings per common share	0.48	0.41	1.35	1.10
Dividends paid per common share	0.12	0.075	0.27	0.175
Performance ratios				
Return on average assets	0.98 %	0.90 %	0.93 %	0.81 %
Return on average common shareholders' equity	8.14	7.27	7.81	6.61
Return on average tangible common shareholders’ equity[(1)]	11.32	10.28	10.95	9.40
Efficiency ratio	60.16	62.31	62.34	65.59

	September 30 2017	December 31 2016
Balance sheet		
Total loans and leases	$927,117	$906,683
Total assets	2,283,896	2,187,702
Total deposits	1,284,417	1,260,934
Total common shareholders’ equity	250,136	241,620
Total shareholders’ equity	272,459	266,840

(1) Return on average tangible common shareholders' equity is a non-GAAP financial measure. For additional information and a corresponding reconciliation to accounting principles generally accepted in the United States of America (GAAP) financial measures, see Non-GAAP Reconciliations on page 67.

Financial Highlights
Net income was $5.6 billion and $15.7 billion, or $0.48 and $1.35 per diluted share for the three and nine months ended September 30, 2017 compared to $5.0 billion and $13.2 billion, or $0.41 and $1.10 per diluted share for the same periods in 2016. The results for the three- and nine-month periods compared to the same periods in 2016 were primarily driven by higher revenue, lower provision for credit losses and noninterest expense.
Total assets increased $96.2 billion from December 31, 2016 to $2.3 trillion at September 30, 2017 due to higher trading account assets primarily driven by additional inventory in fixed-income, currencies and commodities (FICC) to meet expected client demand, and increased client financing activities in equities, growth in cash and cash equivalents primarily due to an increase in deposits, as well as higher loans and leases and securities

borrowed or purchased under agreements to resell. These increases were partially offset by the impact of the sale of the non-U.S. consumer credit card business to a third party in the second quarter of 2017. Total liabilities increased $90.6 billion from December 31, 2016 to $2.0 trillion at September 30, 2017 primarily driven by higher deposits due to strong organic growth, an increase in trading account liabilities, higher securities loaned or sold under agreements

to repurchase due to increased matched-book activity, as well as increases in long-term debt and accrued expenses and other liabilities. Shareholders' equity increased $5.6 billion from December 31, 2016 primarily due to net income, partially offset by returns of capital to shareholders of $12.0 billion through common stock repurchases and common and preferred stock dividends.

Table 2 Summary Income Statement

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Net interest income	$11,161	$10,201	$33,205	$30,804
Noninterest income	10,678	11,434	33,711	32,907
Total revenue, net of interest expense	21,839	21,635	66,916	63,711
Provision for credit losses	834	850	2,395	2,823
Noninterest expense	13,139	13,481	41,713	41,790
Income before income taxes	7,866	7,304	22,808	19,098
Income tax expense	2,279	2,349	7,096	5,888
Net income	5,587	4,955	15,712	13,210
Preferred stock dividends	465	503	1,328	1,321
Net income applicable to common shareholders	$5,122	$4,452	$14,384	$11,889
Per common share information				
Earnings	$0.50	$0.43	$1.42	$1.15
Diluted earnings	0.48	0.41	1.35	1.10

Net Interest Income

Net interest income increased $960 million to $11.2 billion, and $2.4 billion to $33.2 billion for the three and nine months ended September 30, 2017 compared to the same periods in 2016. The net interest yield increased 13 basis points (bps) to 2.31 percent, and 11 bps to 2.32 percent. These increases were primarily driven by the benefits from higher interest rates and loan and deposit growth, partially offset by the decline resulting from the sale of the non-U.S. consumer credit card business in the second quarter of 2017. For more information regarding interest rate risk management, see Interest Rate Risk Management for the Banking Book on page 63.

Noninterest Income

Table 3 Noninterest Income

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Card income	$1,429	$1,455	$4,347	$4,349
Service charges	1,968	1,952	5,863	5,660
Investment and brokerage services	3,303	3,160	9,882	9,543
Investment banking income	1,477	1,458	4,593	4,019
Trading account profits	1,837	2,141	6,124	5,821
Mortgage banking income	(20)	589	332	1,334
Gains on sales of debt securities	125	51	278	490
Other income	559	628	2,292	1,691
Total noninterest income	$10,678	$11,434	$33,711	$32,907

Noninterest income decreased $756 million to $10.7 billion, and increased $804 million to $33.7 billion for the three and nine months ended September 30, 2017 compared to the same periods in 2016. The following highlights the more significant changes.

Service charges remained relatively unchanged for the three-month period and increased $203 million for the nine-month period with the increase primarily driven by the impact of pricing strategies and higher treasury services-related revenue.

Investment and brokerage services income increased $143 million and $339 million primarily driven by the impact of assets under management (AUM) flows and higher market valuations, partially offset by the impact of changing market dynamics on transactional revenue and AUM pricing.

Investment banking income remained relatively unchanged for the three-month period and increased $574 million for the nine-month period primarily due to higher debt and equity issuance fees and higher advisory fees.

Trading account profits decreased $304 million for the three-month period primarily due to weaker performance in fixed-income products, and increased $303 million for the nine-month period primarily due to increased client financing activity in equities.

Mortgage banking income decreased $609 million and $1.0 billion primarily driven by lower net servicing income due to lower mortgage servicing rights (MSR) results, net of the related hedge performance, and lower production income primarily due to lower volume.

Gains on sales of debt securities increased $74 million for the three-month period and decreased $212 million for the nine-month period primarily driven by sales volume.
Other income decreased $69 million for the three-month period due to lower fair value adjustments from economic hedging activities in the fair value option portfolio, partially offset by higher gains on asset sales, and increased $601 million for the nine-month period primarily due to the $793 million pre-tax gain recognized in connection with the sale of the non-U.S. consumer credit card business in the second quarter of 2017.

Provision for Credit Losses

The provision for credit losses decreased $16 million to $834 million, and $428 million to $2.4 billion for the three and nine months ended September 30, 2017 compared to the same periods in 2016 primarily due to credit quality improvements in the consumer real estate portfolio and reductions in energy exposures in the commercial portfolio, partially offset by portfolio seasoning and loan growth in the U.S. credit card portfolio. For more information on the provision for credit losses, see Provision for Credit Losses on page 57.

Noninterest Expense

Table 4 Noninterest Expense

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Personnel	$7,483	$7,704	$24,353	$24,278
Occupancy	999	1,005	3,000	3,069
Equipment	416	443	1,281	1,357
Marketing	461	410	1,235	1,243
Professional fees	476	536	1,417	1,433
Amortization of intangibles	151	181	473	554
Data processing	777	685	2,344	2,240
Telecommunications	170	189	538	551
Other general operating	2,206	2,328	7,072	7,065
Total noninterest expense	$13,139	$13,481	$41,713	$41,790

Noninterest expense declined $342 million to $13.1 billion for the three months ended September 30, 2017 compared to the same period in 2016. The decrease was primarily due to lower personnel and other general operating expense, including the reduction related to the sale of the non-U.S. credit card business.

Noninterest expense for the nine-month period remained relatively unchanged as a $295 million impairment charge related to certain data centers in the process of being sold and higher Federal Deposit Insurance Corporation (FDIC) expense were largely offset by lower litigation expense.

Income Tax Expense

Table 5 Income Tax Expense

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Income before income taxes	$7,866	$7,304	$22,808	$19,098
Income tax expense	2,279	2,349	7,096	5,888
Effective tax rate	29.0 %	32.2 %	31.1 %	30.8 %

The effective tax rates for both the three and nine months ended September 30, 2017 were driven by the impact of our recurring tax preference benefits. The nine-month 2017 effective tax rate also included tax expense of $690 million recognized in connection with the sale of the non-U.S. consumer credit card business in the second quarter of 2017.

The effective tax rates for the three and nine months ended September 30, 2016 were driven by our recurring tax preference benefits, and the third quarter of 2016 included a $350 million charge for the impact of the U.K. tax law changes enacted in September 2016.

Table 6 Selected Quarterly Financial Data

	2017 Quarters			2016 Quarters	
(Dollars in millions, except per share information)	Third	Second	First	Fourth	Third
Income statement					
Net interest income	$11,161	$10,986	$11,058	$10,292	$10,201
Noninterest income	10,678	11,843	11,190	9,698	11,434
Total revenue, net of interest expense	21,839	22,829	22,248	19,990	21,635
Provision for credit losses	834	726	835	774	850
Noninterest expense	13,139	13,726	14,848	13,161	13,481
Income before income taxes	7,866	8,377	6,565	6,055	7,304
Income tax expense	2,279	3,108	1,709	1,359	2,349
Net income	5,587	5,269	4,856	4,696	4,955
Net income applicable to common shareholders	5,122	4,908	4,354	4,335	4,452
Average common shares issued and outstanding	10,198	10,014	10,100	10,170	10,250
Average diluted common shares issued and outstanding	10,725	10,822	10,915	10,959	11,000
Performance ratios					
Return on average assets	0.98 %	0.93 %	0.88 %	0.85 %	0.90 %
Four quarter trailing return on average assets [(1)]	0.91	0.89	0.88	0.82	0.76
Return on average common shareholders' equity	8.14	8.00	7.27	7.04	7.27
Return on average tangible common shareholders' equity[(2)]	11.32	11.23	10.28	9.92	10.28
Return on average shareholders' equity	8.10	7.79	7.35	6.91	7.33
Return on average tangible shareholders' equity [(2)]	10.89	10.54	10.00	9.38	9.98
Total ending equity to total ending assets	11.93	12.02	11.93	12.20	12.30
Total average equity to total average assets	12.05	11.95	12.01	12.24	12.28
Dividend payout	24.78	15.25	17.37	17.68	17.32
Per common share data					
Earnings	$0.50	$0.49	$0.43	$0.43	$0.43
Diluted earnings	0.48	0.46	0.41	0.40	0.41
Dividends paid	0.12	0.075	0.075	0.075	0.075
Book value	23.92	24.88	24.36	24.04	24.19
Tangible book value [(2)]	17.23	17.78	17.23	16.95	17.14
Market price per share of common stock					
Closing	$25.34	$24.26	$23.59	$22.10	$15.65
High closing	25.45	24.32	25.50	23.16	16.19
Low closing	22.89	22.23	22.05	15.63	12.74
Market capitalization	$264,992	$239,643	$235,291	$222,163	$158,438

(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 and for corresponding reconciliations to GAAP financial measures, see

Non-GAAP Reconciliations on page 67.

(3) For more information on the impact of the purchased credit-impaired (PCI) loan portfolio on asset quality, see Consumer Portfolio Credit Risk Management on page 39.

(4) Includes the allowance for loan and lease losses and the reserve for unfunded lending commitments.

(5) 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 48 and corresponding Table 33, and Commercial Portfolio Credit Risk Management – Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity on page 52 and corresponding Table 40.

(6) Asset quality metrics include $242 million and $243 million of non-U.S. credit card allowance for loan and lease losses and $9.5 billion and $9.2 billion of non-U.S. credit card loans in the first quarter of 2017 and in the fourth quarter of 2016, which were previously included in assets of business held for sale. During the second quarter of 2017, the Corporation sold its non-U.S. consumer credit card business.

(7) Primarily includes amounts allocated to the U.S. credit card and unsecured consumer lending portfolios in Consumer Banking, PCI loans and the non-U.S. credit card portfolio in All Other.

(8) Net charge-offs exclude $73 million, $55 million, $33 million, $70 million, and $83 million of write-offs in the PCI loan portfolio in the third, second and first quarters of 2017, and in the fourth and third quarters of 2016, respectively. For more information on PCI write-offs, see Consumer Portfolio Credit Risk Management – Purchased Credit-impaired Loan Portfolio on page 45.

(9) Includes net charge-offs of $31 million, $44 million and $41 million on non-U.S. credit card loans in the second and first quarters of 2017, and in the fourth quarter of 2016, which were previously included in assets of business held for sale on the Consolidated Balance Sheet at March 31, 2017 and December 31, 2016.

(10) Risk-based capital ratios are reported under Basel 3 Advanced - Transition. For additional information, see Capital Management on page 28.

Table 6 Selected Quarterly Financial Data (continued)

	2017 Quarters			2016 Quarters	
(Dollars in millions)	Third	Second	First	Fourth	Third
Average balance sheet					
Total loans and leases	$918,129	$914,717	$914,144	$908,396	$900,594
Total assets	2,270,872	2,269,153	2,231,420	2,208,039	2,189,490
Total deposits	1,271,711	1,256,838	1,256,632	1,250,948	1,227,186
Long-term debt	227,309	224,019	221,468	220,587	227,269
Common shareholders' equity	249,624	246,003	242,883	245,139	243,679
Total shareholders' equity	273,648	271,223	268,103	270,360	268,899
Asset quality [3]					
Allowance for credit losses [4]	$11,455	$11,632	$11,869	$11,999	$12,459
Nonperforming loans, leases and foreclosed properties [5]	6,869	7,127	7,637	8,084	8,737
Allowance for loan and lease losses as a percentage of total loans and leases outstanding [5, 6]	1.16 %	1.20 %	1.25 %	1.26 %	1.30 %
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases [5, 6]	163	160	156	149	140
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases, excluding the PCI loan portfolio [5, 6]	158	154	150	144	135
Amounts included in allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases [7]	$3,880	$3,782	$4,047	$3,951	$4,068
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 [5, 7]	104 %	104 %	100 %	98 %	91 %
Net charge-offs [8, 9]	$900	$908	$934	$880	$888
Annualized net charge-offs as a percentage of average loans and leases outstanding [5, 8]	0.39 %	0.40 %	0.42 %	0.39 %	0.40 %
Annualized net charge-offs as a percentage of average loans and leases outstanding, excluding the PCI loan portfolio [5]	0.40	0.41	0.42	0.39	0.40
Annualized net charge-offs and PCI write-offs as a percentage of average loans and leases outstanding [5]	0.42	0.43	0.43	0.42	0.43
Nonperforming loans and leases as a percentage of total loans and leases outstanding [5, 6]	0.71	0.75	0.80	0.85	0.93
Nonperforming loans, leases and foreclosed properties as a percentage of total loans, leases and foreclosed properties [5, 6]	0.75	0.78	0.84	0.89	0.97
Ratio of the allowance for loan and lease losses at period end to annualized net charge-offs [6, 8]	3.00	2.99	3.00	3.28	3.31
Ratio of the allowance for loan and lease losses at period end to annualized net charge-offs, excluding the PCI loan portfolio [6]	2.91	2.88	2.88	3.16	3.18
Ratio of the allowance for loan and lease losses at period end to annualized net charge-offs and PCI	2.77	2.82	2.90	3.04	3.03

write-offs [6]					
Capital ratios at period end [10]					
Risk-based capital:					
Common equity tier 1 capital	11.9 %	11.6 %	11.0 %	11.0 %	11.0 %
Tier 1 capital	13.3	13.2	12.5	12.4	12.4
Total capital	15.1	15.1	14.4	14.3	14.2
Tier 1 leverage	9.0	8.9	8.8	8.9	9.1
Tangible equity [2]	9.1	9.2	9.1	9.2	9.4
Tangible common equity [2]	8.1	8.0	7.9	8.1	8.2

For footnotes see page 7.

Table 7 Selected Year-to-Date Financial Data

	Nine Months Ended September 30			
(In millions, except per share information)	2017		2016	
Income statement				
Net interest income	$33,205		$30,804	
Noninterest income	33,711		32,907	
Total revenue, net of interest expense	66,916		63,711	
Provision for credit losses	2,395		2,823	
Noninterest expense	41,713		41,790	
Income before income taxes	22,808		19,098	
Income tax expense	7,096		5,888	
Net income	15,712		13,210	
Net income applicable to common shareholders	14,384		11,889	
Average common shares issued and outstanding	10,103		10,313	
Average diluted common shares issued and outstanding	10,820		11,047	
Performance ratios				
Return on average assets	0.93	%	0.81	%
Return on average common shareholders' equity	7.81		6.61	
Return on average tangible common shareholders' equity(1)	10.95		9.40	
Return on average shareholder's equity	7.75		6.66	
Return on average tangible shareholders' equity (1)	10.48		9.13	
Total ending equity to total ending assets	11.93		12.30	
Total average equity to total average assets	12.01		12.13	
Dividend payout	19.28		15.19	
Per common share data				
Earnings	$1.42		$1.15	
Diluted earnings	1.35		1.10	
Dividends paid	0.27		0.175	
Book value	23.92		24.19	
Tangible book value (1)	17.23		17.14	
Market price per share of common stock				
Closing	$25.34		$15.65	
High closing	25.50		16.43	
Low closing	22.05		11.16	
Market capitalization	$264,992		$158,438	

(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 GAAP financial measures, see Non-GAAP Reconciliations on page 67.

(2) For more information on the impact of the PCI loan portfolio on asset quality, see Consumer Portfolio Credit Risk Management on page 39.

(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 48 and corresponding Table 33, and Commercial Portfolio Credit Risk Management – Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity on page 52 and corresponding Table 40.

(5) Primarily includes amounts allocated to the U.S. credit card and unsecured consumer lending portfolios in Consumer Banking, PCI loans and the non-U.S. credit card portfolio in All Other. During the second quarter of 2017, the Corporation sold its non-U.S. consumer credit card business.

(6) Net charge-offs exclude $161 million and $270 million of write-offs in the PCI loan portfolio for the nine months ended September 30, 2017 and 2016. For more information on PCI write-offs, see Consumer Portfolio Credit Risk Management – Purchased Credit-impaired Loan Portfolio on page 45.

Table 7 Selected Year-to-Date Financial Data (continued)

(Dollars in millions)	Nine Months Ended September 30 2017		2016	
Average balance sheet				
Total loans and leases	$915,678		$897,760	
Total assets	2,257,293		2,183,905	
Total deposits	1,261,782		1,213,029	
Long-term debt	224,287		231,313	
Common shareholders' equity	246,195		240,440	
Total shareholders' equity	271,012		264,907	
Asset quality [2]				
Allowance for credit losses [3]	$11,455		$12,459	
Nonperforming loans, leases and foreclosed properties [4]	6,869		8,737	
Allowance for loan and lease losses as a percentage of total loans and	1.16	%	1.30	%

leases outstanding [(4)]		
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases [(4)]	163	140
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases, excluding the PCI loan portfolio [(4)]	158	135
Amounts included in allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases [(5)]	$3,880	$4,068
Allowance for loan and	104 %	91 %

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 [4, 5]		
Net charge-offs [6]	$2,742	$2,941
Annualized net charge-offs as a percentage of average loans and leases outstanding [4, 6]	0.40 %	0.44 %
Annualized net charge-offs as a percentage of average loans and	0.41	0.45

leases outstanding, excluding the PCI loan portfolio (4)		
Annualized net charge-offs and PCI write-offs as a percentage of average loans and leases outstanding (4)	0.43	0.48
Nonperforming loans and leases as a percentage of total loans and leases outstanding (4)	0.71	0.93
Nonperforming loans, leases and foreclosed properties as a percentage of total loans, leases and foreclosed properties (4)	0.75	0.97
Ratio of the allowance for loan and	2.92	2.98

lease losses at period end to annualized net charge-offs (6)		
Ratio of the allowance for loan and lease losses at period end to annualized net charge-offs, excluding the PCI loan portfolio	2.83	2.86
Ratio of the allowance for loan and lease losses at period end to annualized net charge-offs and PCI write-offs	2.76	2.73

For footnotes see page 9.

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 a fully taxable-equivalent (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 35 percent and a representative state tax rate. In addition, certain performance measures including the efficiency ratio and net interest yield utilize net interest income (and thus total revenue) on an FTE basis. The efficiency ratio measures the costs expended to generate a dollar of revenue, and net interest yield measures the bps we earn over the cost of funds. 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)) which result in non-GAAP financial measures. We believe that the presentation of measures that exclude these items are useful because they 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 certain acquired intangible assets (excluding 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 earnings contribution as a percentage of adjusted common shareholders' equity. The tangible common equity ratio represents adjusted ending common shareholders' equity divided by total assets less goodwill and certain acquired intangible assets (excluding MSRs), net of related deferred tax liabilities.

Return on average tangible shareholders' equity measures our earnings contribution 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 certain acquired 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 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 6 and 7. Table 8 presents certain non-GAAP financial measures and performance measurements on an FTE basis.

Table 8 Supplemental Financial Data

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Fully taxable-equivalent basis data				

Net interest income	$11,401	$10,429	$33,879	$31,470
Total revenue, net of interest expense	22,079	21,863	67,590	64,377
Net interest yield	2.36 %	2.23 %	2.36 %	2.26 %
Efficiency ratio	59.51	61.66	61.71	64.91

Table 9 Quarterly Average Balances and Interest Rates – FTE Basis

	Third Quarter 2017			Third Quarter 2016		
(Dollars in millions)	Average Balance	Interest Income/ Expense	Yield/ Rate	Average Balance	Interest Income/ Expense	Yield/ Rate
Earning assets						
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	$127,835	$323	1.00%	$133,866	$148	0.44%
Time deposits placed and other short-term investments	12,503	68	2.17	9,336	34	1.45
Federal funds sold and securities borrowed or purchased under agreements to resell	223,585	659	1.17	214,254	267	0.50
Trading account assets	124,068	1,125	3.60	128,879	1,111	3.43
Debt securities (1)	436,886	2,670	2.44	423,182	2,169	2.07
Loans and leases (2):						
Residential mortgage	199,240	1,724	3.46	188,234	1,612	3.42
Home equity	61,225	664	4.31	70,603	681	3.84

U.S. credit card	91,602	2,253	9.76	88,210	2,061	9.30
Non-U.S. credit card [1]	—	—	—	9,256	231	9.94
Direct/Indirect consumer [3]	93,510	678	2.88	92,870	585	2.51
Other consumer [4]	2,762	28	4.07	2,358	18	2.94
Total consumer	448,339	5,347	4.74	451,531	5,188	4.58
U.S. commercial	293,203	2,542	3.44	276,833	2,040	2.93
Commercial real estate [5]	59,044	552	3.71	57,606	452	3.12
Commercial lease financing	21,818	160	2.92	21,194	153	2.88
Non-U.S. commercial	95,725	676	2.80	93,430	599	2.55
Total commercial	469,790	3,930	3.32	449,063	3,244	2.87
Total loans and leases	918,129	9,277	4.02	900,594	8,432	3.73
Other earning assets	76,496	775	4.02	59,951	677	4.50
Total earning assets [6]	1,919,502	14,897	3.09	1,870,062	12,838	2.74
Cash and due from banks [1]	28,990			27,361		
Other assets, less allowance for loan and lease losses [1]	322,380			292,067		
Total assets	$2,270,872			$2,189,490		
Interest-bearing liabilities						

U.S. interest-bearing deposits:						
Savings	$54,328	$1	0.01%	$49,885	$2	0.01%
NOW and money market deposit accounts	631,270	333	0.21	592,907	73	0.05
Consumer CDs and IRAs	44,239	31	0.27	48,695	33	0.27
Negotiable CDs, public funds and other deposits	38,119	101	1.05	32,023	43	0.54
Total U.S. interest-bearing deposits	767,956	466	0.24	723,510	151	0.08
Non-U.S. interest-bearing deposits:						
Banks located in non-U.S. countries	2,259	5	0.97	4,294	9	0.87
Governments and official institutions	1,012	3	1.04	1,391	3	0.61
Time, savings and other	63,716	150	0.93	59,340	103	0.70
Total non-U.S. interest-bearing deposits	66,987	158	0.93	65,025	115	0.71
Total interest-bearing deposits	834,943	624	0.30	788,535	266	0.13
Federal funds purchased, securities	230,230	944	1.63	207,634	569	1.09

loaned or sold under agreements to repurchase, short-term borrowings and other interest-bearing liabilities						
Trading account liabilities	48,390	319	2.62	37,229	244	2.61
Long-term debt	227,309	1,609	2.82	227,269	1,330	2.33
Total interest-bearing liabilities (6)	1,340,872	3,496	1.04	1,260,667	2,409	0.76
Noninterest-bearing sources:						
Noninterest-bearing deposits	436,768			438,651		
Other liabilities	219,584			221,273		
Shareholders' equity	273,648			268,899		
Total liabilities and shareholders' equity	$2,270,872			$2,189,490		
Net interest spread			2.05%			1.98%
Impact of noninterest-bearing sources			0.31			0.25
Net interest income/yield on earning assets		$11,401	2.36%		$10,429	2.23%

(1) Includes assets of the Corporation's non-U.S. consumer credit card business, which was sold during the second quarter of 2017.

(2) Nonperforming loans are included in the respective average loan balances. Income on these nonperforming loans is generally recognized on a cost recovery basis. PCI loans were recorded at fair value upon acquisition and accrete interest income over the estimated life of the loan.

(3) Includes non-U.S. consumer loans of $2.9 billion and $3.2 billion in the third quarter of 2017 and 2016.

(4) Includes consumer finance loans of $406 million and $501 million; consumer leases of $2.2 billion and $1.7 billion, and consumer overdrafts of $193 million and $187 million in the third quarter of 2017 and 2016, respectively.

(5) Includes U.S. commercial real estate loans of $55.2 billion and $54.3 billion, and non-U.S. commercial real estate loans of $3.8 billion and $3.3 billion in the third quarter of 2017 and 2016, respectively.

(6) Interest income includes the impact of interest rate risk management contracts, which decreased interest income on the underlying assets by $7 million and $64 million in the third quarter of 2017 and 2016. Interest expense includes the impact of interest rate risk management contracts, which decreased interest expense on the underlying liabilities by $346 million and $560 million in the third quarter of 2017 and 2016. For additional information, see Interest Rate Risk Management for the Banking Book on page 63.

Table 10 Year-to-Date Average Balances and Interest Rates – FTE Basis

	Nine Months Ended September 30					
	2017			2016		
(Dollars in millions)	Average Balance	Interest Income/ Expense	Yield/ Rate	Average Balance	Interest Income/ Expense	Yield/ Rate
Earning assets						
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	$127,000	$786	0.83%	$135,910	$460	0.45 %
Time deposits placed and other short-term investments	11,820	173	1.96	8,784	101	1.54
Federal funds sold and securities borrowed or purchased under agreements to resell	222,255	1,658	1.00	215,476	803	0.50
Trading account assets	128,547	3,435	3.57	130,785	3,432	3.50
Debt securities [1]	432,775	7,875	2.42	414,115	6,990	2.27
Loans and leases [2]:						
Residential mortgage	196,288	5,082	3.45	187,325	4,867	3.46
Home equity	63,339	1,967	4.15	73,015	2,095	3.83
	90,238	6,492	9.62	87,362	6,065	9.27

U.S. credit card							
Non-U.S. credit card [1]	5,253	358	9.12	9,687	734	10.12	
Direct/Indirect consumer [3]	93,316	1,929	2.76	91,291	1,698	2.48	
Other consumer [4]	2,648	81	4.07	2,240	50	2.99	
Total consumer	451,082	15,909	4.71	450,920	15,509	4.59	
U.S. commercial	290,632	7,167	3.30	274,669	5,982	2.91	
Commercial real estate [5]	58,340	1,545	3.54	57,550	1,320	3.06	
Commercial lease financing	21,862	547	3.33	21,049	482	3.05	
Non-U.S. commercial	93,762	1,886	2.69	93,572	1,748	2.50	
Total commercial	464,596	11,145	3.21	446,840	9,532	2.85	
Total loans and leases	915,678	27,054	3.95	897,760	25,041	3.72	
Other earning assets	74,554	2,206	3.95	58,189	2,031	4.66	
Total earning assets [6]	1,912,629	43,187	3.02	1,861,019	38,858	2.79	
Cash and due from banks [1]	27,955			28,041			
Other assets, less allowance for loan and lease losses [1]	316,709			294,845			
Total assets	$2,257,293			$2,183,905			
Interest-bearing liabilities							
U.S. interest-bearing deposits:							
Savings	$53,679	$4	0.01 %	$49,281	$4	0.01	%

NOW and money market deposit accounts	622,920	512	0.11	584,896	216	0.05
Consumer CDs and IRAs	45,535	92	0.27	48,920	101	0.28
Negotiable CDs, public funds and other deposits	35,968	221	0.82	32,212	107	0.45
Total U.S. interest-bearing deposits	758,102	829	0.15	715,309	428	0.08
Non-U.S. interest-bearing deposits:						
Banks located in non-U.S. countries	2,643	16	0.82	4,218	28	0.90
Governments and official institutions	1,002	7	0.92	1,468	7	0.60
Time, savings and other	60,747	400	0.88	58,866	273	0.62
Total non-U.S. interest-bearing deposits	64,392	423	0.88	64,552	308	0.64
Total interest-bearing deposits	822,494	1,252	0.20	779,861	736	0.13
Federal funds purchased, securities loaned or sold under agreements to repurchase, short-term	237,857	2,508	1.41	215,131	1,808	1.12

borrowings and other interest-bearing liabilities							
Trading account liabilities	44,128	890	2.70	37,760	778	2.76	
Long-term debt	224,287	4,658	2.77	231,313	4,066	2.35	
Total interest-bearing liabilities (6)	1,328,766	9,308	0.94	1,264,065	7,388	0.78	
Noninterest-bearing sources:							
Noninterest-bearing deposits	439,288			433,168			
Other liabilities	218,227			221,765			
Shareholders' equity	271,012			264,907			
Total liabilities and shareholders' equity	$2,257,293			$2,183,905			
Net interest spread			2.08%			2.01	%
Impact of noninterest-bearing sources			0.28			0.25	
Net interest income/yield on earning assets		$33,879	2.36%		$31,470	2.26	%

(1) Includes assets of the Corporation's non-U.S. consumer credit card business, which was sold during the second quarter of 2017.

(2) Nonperforming loans are included in the respective average loan balances. Income on these nonperforming loans is generally recognized on a cost recovery basis. PCI loans were recorded at fair value upon acquisition and accrete interest income over the estimated life of the loan.

(3) Includes non-U.S. consumer loans of $2.9 billion and $3.5 billion for the nine months ended September 30, 2017 and 2016.

(4) Includes consumer finance loans of $430 million and $526 million; consumer leases of $2.0 billion and $1.5 billion, and consumer overdrafts of $177 million and $171 million for the nine months ended September 30, 2017 and 2016, respectively.

(5) Includes U.S. commercial real estate loans of $55.0 billion and $54.1 billion, and non-U.S. commercial real estate loans of $3.4 billion and $3.4 billion for the nine months ended September 30, 2017 and 2016, respectively.

(6) Interest income includes the impact of interest rate risk management contracts, which decreased interest income on the underlying assets by $48 million and $155 million for the nine months ended September 30, 2017 and 2016.

Interest expense includes the impact of interest rate risk management contracts, which decreased interest expense on the underlying liabilities by $1.1 billion and $1.7 billion for the nine months ended September 30, 2017 and 2016. For additional information, see Interest Rate Risk Management for the Banking Book on page 63.

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 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 28. For more information on the basis of presentation for business segments and reconciliations to consolidated total revenue, net income and period-end total assets, see Note 17 – Business Segment Information to the Consolidated Financial Statements.

Consumer Banking

	Three Months Ended September 30						
	Deposits		Consumer Lending		Total Consumer Banking		
(Dollars in millions)	2017	2016	2017	2016	2017	2016	% Change
Net interest income (FTE basis)	$3,439	$2,629	$2,772	$2,660	$6,211	$5,289	17 %
Noninterest income:							
Card income	3	2	1,241	1,216	1,244	1,218	2
Service charges	1,082	1,072	1	—	1,083	1,072	1
Mortgage banking income (1)	—	—	142	297	142	297	(52)
All other income (loss)	96	98	(2)	(6)	94	92	2
Total noninterest income	1,181	1,172	1,382	1,507	2,563	2,679	(4)
Total revenue, net of interest expense (FTE basis)	4,620	3,801	4,154	4,167	8,774	7,968	10
Provision for credit losses	47	43	920	655	967	698	39
Noninterest expense	2,615	2,397	1,844	1,974	4,459	4,371	2
Income before income taxes (FTE basis)	1,958	1,361	1,390	1,538	3,348	2,899	15
Income tax expense (FTE	738	510	523	576	1,261	1,086	16

basis)							
Net income	$1,220	$851	$867	$962	$2,087	$1,813	15
Net interest yield (FTE basis)	2.08 %	1.73 %	4.16 %	4.31 %	3.56 %	3.30 %	
Return on average allocated capital	40	28	14	17	22	21	
Efficiency ratio (FTE basis)	56.61	63.03	44.40	47.40	50.83	54.86	

Balance Sheet

	Three Months Ended September 30						
Average	2017	2016	2017	2016	2017	2016	% Change
Total loans and leases	$5,079	$4,837	$263,731	$243,846	$268,810	$248,683	8 %
Total earning assets [2]	657,036	604,223	264,665	245,540	692,122	636,832	9
Total assets [2]	684,642	630,394	276,014	257,167	731,077	674,630	8
Total deposits	652,286	598,117	6,688	7,588	658,974	605,705	9
Allocated capital	12,000	12,000	25,000	22,000	37,000	34,000	9

(1) Total consolidated mortgage banking income (loss) of $(20) million and $332 million for the three and nine months ended September 30, 2017 were recorded primarily in Consumer Lending and All Other, compared to $589 million and $1.3 billion for the same periods in 2016.

(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.

	Nine Months Ended September 30						
	Deposits		Consumer Lending		Total Consumer Banking		
(Dollars in millions)	2017	2016	2017	2016	2017	2016	% Change
Net interest income (FTE basis)	$9,804	$ 7,940	$8,149	$7,885	$17,953	$15,825	13 %
Noninterest income:							
Card income	6	7	3,710	3,638	3,716	3,645	2
Service charges	3,193	3,079	1	1	3,194	3,080	4
Mortgage banking income [1]	—	—	401	754	401	754	(47)
All other income	294	312	9	4	303	316	(4)
Total noninterest income	3,493	3,398	4,121	4,397	7,614	7,795	(2)
Total revenue, net of interest expense (FTE basis)	13,297	11,338	12,270	12,282	25,567	23,620	8
Provision for credit losses	148	132	2,491	1,823	2,639	1,955	35
Noninterest expense	7,702	7,227	5,578	6,097	13,280	13,324	<(1)
Income before income taxes (FTE basis)	5,447	3,979	4,201	4,362	9,648	8,341	16
Income tax expense (FTE basis)	2,054	1,473	1,584	1,615	3,638	3,088	18
Net income	$3,393	$ 2,506	$2,617	$2,747	$6,010	$5,253	14
Net interest yield (FTE basis)	2.02 %	1.79 %	4.21 %	4.39 %	3.52 %	3.39 %	
Return on average allocated capital	38	28	14	17	22	21	
Efficiency ratio (FTE basis)	57.93	63.74	45.46	49.64	51.94	56.41	

Balance Sheet

	Nine Months Ended September 30							
Average	2017	2016	2017	2016	2017	2016	% Change	
Total loans and leases	$5,025	$ 4,787	$257,779	$238,404	$262,804	$243,191	8	%
Total earning assets (2)	647,887	591,913	258,659	239,870	682,436	623,834	9	
Total assets (2)	675,159	618,466	270,196	251,609	721,245	662,126	9	
Total deposits	642,783	586,334	6,421	7,167	649,204	593,501	9	
Allocated capital	12,000	12,000	25,000	22,000	37,000	34,000	9	

Period end	September 30 2017	December 31 2016	September 30 2017	December 31 2016	September 30 2017	December 31 2016	% Change	
Total loans and leases	$5,060	$ 4,938	$267,300	$254,053	$272,360	$258,991	5	%
Total earning assets (2)	667,733	631,172	268,354	255,511	703,277	662,698	6	
Total assets (2)	695,403	658,316	279,920	268,002	742,513	702,333	6	
Total deposits	662,781	625,727	6,866	7,059	669,647	632,786	6	

See page 14 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. Our customers and clients have access to a coast to coast network including financial centers in 33 states and the District of Columbia. Our network includes approximately 4,500 financial centers, 16,000 ATMs, nationwide call centers, and leading digital banking platforms with approximately 34 million active users, including approximately 24 million mobile active users.

Consumer Banking Results

Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016

Net income for Consumer Banking increased $274 million to $2.1 billion primarily driven by higher net interest income, partially offset by higher provision for credit losses and noninterest expense. Net interest income increased $922 million to $6.2 billion primarily due to the beneficial impact of an increase in investable assets as a result of higher deposits, and loan growth. Noninterest income decreased $116 million to $2.6 billion primarily driven by lower mortgage banking income, partially offset by higher card income and service charges.

The provision for credit losses increased $269 million to $967

million due to portfolio seasoning and loan growth in the U.S. credit
card portfolio. The three months ended September 30, 2017 included a net reserve increase of $167 million compared to a release of $12 million for the three months ended September 30, 2016. Noninterest expense increased $88 million to $4.5 billion primarily driven by investments in digital capabilities and business growth, including increased primary sales professionals combined with investments in new financial centers and renovations, as well as higher litigation expense.

The return on average allocated capital was 22 percent, up from 21 percent, as higher net income was partially offset by an increased capital allocation. For more information on capital allocations, see Business Segment Operations on page 14.

Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016

Net income for Consumer Banking increased $757 million to $6.0 billion primarily driven by higher net interest income, partially offset by higher provision for credit losses. Net interest income increased $2.1 billion to $18.0 billion primarily due to the beneficial impact of an increase in investable assets as a result of higher deposits, as well as pricing discipline and loan growth. Noninterest income decreased $181 million to $7.6 billion driven by lower mortgage banking income, partially offset by higher service charges and card income.

15 Bank of America

The provision for credit losses increased $684 million to $2.6 billion due to portfolio seasoning and loan growth in the U.S. credit card portfolio. Noninterest expense decreased $44 million to $13.3 billion driven by improved operating efficiencies, largely offset by higher FDIC, personnel and litigation expenses.
The return on average allocated capital was 22 percent, up from 21 percent, as higher net income was partially offset by an increased capital allocation. For more information on capital allocations, see Business Segment Operations on page 14.
Deposits
Deposits includes the results of consumer deposit activities which consist of a comprehensive range of products provided to consumers and small businesses. Our deposit products include traditional savings accounts, money market savings accounts, CDs and IRAs, noninterest- and interest-bearing checking accounts, as well as investment accounts and products. Net interest income is allocated to the deposit products using our funds transfer pricing process that matches assets and liabilities with similar interest rate sensitivity and maturity characteristics. Deposits generates fees such as account service fees, non-sufficient funds fees, overdraft charges and ATM fees, as well as investment and brokerage fees from Merrill Edge accounts. Merrill Edge is an integrated investing and banking service targeted at customers with less than $250,000 in investable assets. Merrill Edge provides investment advice and guidance, client brokerage asset services, a self-directed online investing platform and key banking capabilities including access to the Corporation's network of financial centers and ATMs.
Deposits includes the net impact of migrating customers and their related deposit and brokerage asset balances between Deposits and GWIM as well as other client-managed businesses. For more information on the migration of customer balances to or from GWIM, see GWIM – Net Migration Summary on page 20.

Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016
Net income for Deposits increased $369 million to $1.2 billion driven by higher revenue, partially offset by higher noninterest expense. Net interest income increased $810 million to $3.4 billion primarily due to the beneficial impact of an increase in investable assets as a result of higher deposits, and pricing discipline.
Noninterest expense increased $218 million to $2.6 billion primarily driven by investments in digital capabilities and business growth, including increased primary sales professionals, combined with investments in new financial centers and renovations, and higher litigation and FDIC expenses.
Average deposits increased $54.2 billion to $652.3 billion driven by strong organic growth. Growth in checking, money market savings and traditional savings of $57.4 billion was partially offset by a decline in time deposits of $3.4 billion.
Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016
Net income for Deposits increased $887 million to $3.4 billion. Net interest income increased $1.9 billion to $9.8 billion and noninterest income increased $95 million to $3.5 billion, both of which were primarily driven by the same factors as described in the three-month discussion. The prior-year period included gains on certain divestitures.
The provision for credit losses increased $16 million to $148 million. Noninterest expense increased $475 million to $7.7 billion primarily driven by the same factors as described in the three-month discussion.
Average deposits increased $56.4 billion to $642.8 billion primarily driven by the same factor as described in the three-month discussion.

Key Statistics – Deposits

	Three Months Ended September 30		Nine Months Ended September 30	
	2017	2016	2017	2016
Total deposit spreads (excludes noninterest costs) [1]	1.88%	1.64%	1.82%	1.65%
Period end				
Client brokerage assets (in millions)			$167,274	$137,985
Digital banking active users (units in thousands) [2]			34,472	32,814

Mobile banking active users (units in thousands)	23,572	21,305
Financial centers	4,511	4,629
ATMs	15,973	15,959

(1) Includes deposits held in Consumer Lending.

(2) Digital users represents mobile and/or online users across consumer businesses; historical information has been reclassified primarily due to the sale of the Corporation's non-U.S. consumer credit card business during the second quarter of 2017.

Client brokerage assets increased $29.3 billion driven by strong client flows and market performance. Mobile banking active users increased 2.3 million reflecting continuing changes in our customers' banking preferences. The number of financial centers
declined 118 driven by 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

Consumer Lending offers products to consumers and small businesses across the U.S. The products offered include credit and debit cards, residential mortgages and home equity loans, and direct and indirect loans such as automotive, recreational

vehicle and consumer personal loans. In addition to earning net interest spread revenue on its lending activities, Consumer Lending generates interchange revenue from credit and debit card transactions, late fees, cash advance fees, annual credit card fees, mortgage banking fee income and other miscellaneous fees. Consumer Lending products are available to our customers through our retail network, direct telephone, and online and mobile channels. Consumer Lending results also include the impact of servicing residential mortgages and home equity loans in the core portfolio, including loans held on the balance sheet of Consumer Lending and loans serviced for others.

We classify consumer real estate loans as core or 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. For more information on the core and non-core portfolios, see Consumer Portfolio Credit Risk Management on page 39.
At September 30, 2017, total owned loans in the core portfolio held in Consumer Lending were $111.6 billion, an increase of $13.8 billion from September 30, 2016, primarily driven by higher residential mortgage balances, partially offset by a decline in home equity balances.
Consumer Lending includes the net impact of migrating customers and their related loan balances between Consumer Lending and GWIM. For more information on the migration of customer balances to or from GWIM, see GWIM – Net Migration Summary on page 20.
Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016
Net income for Consumer Lending decreased $95 million to $867 million driven by higher provision for credit losses and lower noninterest income, partially offset by lower noninterest expense and higher net interest income. Net interest income increased $112 million to $2.8 billion primarily driven by the impact of an increase in loan balances. Noninterest income decreased $125 million to $1.4 billion driven by lower mortgage banking income, partially offset by higher card income.

The provision for credit losses increased $265 million to $920 million due to portfolio seasoning and loan growth in the U.S. credit card portfolio. Noninterest expense decreased $130 million to $1.8 billion primarily driven by improved operating efficiencies.
Average loans increased $19.9 billion to $263.7 billion primarily driven by increases in residential mortgages, as well as U.S. credit card and consumer vehicle loans, partially offset by lower home equity loan balances.
Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016
Net income for Consumer Lending decreased $130 million to $2.6 billion driven by the same factors as described in the three-month discussion. Net interest income increased $264 million to $8.1 billion. Noninterest income decreased $276 million to $4.1 billion. Fluctuations were driven by the same factors as described in the three-month discussion. The provision for credit losses increased $668 million to $2.5 billion due to portfolio seasoning and loan growth in the U.S. credit card portfolio. Noninterest expense decreased $519 million to $5.6 billion primarily driven by the same factor as described in the three-month discussion.
Average loans increased $19.4 billion to $257.8 billion driven by increases in residential mortgages as well as consumer vehicle and U.S credit card loans, partially offset by lower home equity loan balances.

Key Statistics – Consumer Lending

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Total U.S. credit card [(1)]				
Gross interest yield	9.76 %	9.30 %	9.62 %	9.27 %
Risk-adjusted margin	8.63	9.11	8.64	8.99
New accounts (in thousands)	1,315	1,324	3,801	3,845
Purchase volumes	$62,244	$57,591	$179,230	$165,412
Debit card purchase volumes	$74,769	$71,049	$220,729	$212,316

(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 nine months ended September 30, 2017, the total U.S. credit card risk-adjusted margin decreased 48 bps and 35 bps compared to the same periods in 2016, primarily driven by increased net charge-offs and higher credit card rewards costs.
Total U.S. credit card purchase volumes increased $4.7 billion to $62.2 billion, and $13.8 billion to $179.2 billion, and debit card purchase volumes increased $3.7 billion to $74.8 billion, and $8.4 billion to $220.7 billion, reflecting higher levels of consumer spending.
Mortgage Banking Income

Mortgage banking income in Consumer Banking includes production income and net servicing income. Production income is comprised primarily of revenue from the fair value gains and losses recognized on our interest rate lock commitments (IRLCs) and loans held-for-sale (LHFS), the related secondary market execution, and costs related to representations and warranties made in the sales transactions along with other obligations incurred in the sales of mortgage loans. Production income for the three and nine months ended September 30, 2017 decreased $148 million to $64 million, and $347 million to $185 million compared to the same periods in 2016 due to a decision to retain

a higher percentage of residential mortgage production in Consumer Banking, as well as the impact of a higher interest rate environment driving lower refinances.

Net servicing income within Consumer Banking includes income earned in connection with servicing activities and MSR valuation adjustments for the core portfolio, net of results from risk management activities used to hedge certain market risks of the MSRs. Net servicing income for the three and nine months ended September 30, 2017 decreased $7 million to $78 million, and $6 million to $216 million compared to the same periods in 2016.

Mortgage Servicing Rights

At September 30, 2017, the core MSR portfolio, held within Consumer Lending, was $1.7 billion compared to $1.8 billion at September 30, 2016. The decrease was primarily driven by the amortization of expected cash flows, which exceeded additions to the MSR portfolio, partially offset by changes in fair value from rising interest rates. For more information on MSRs, see Note 14 – Fair Value Measurements to the Consolidated Financial Statements.

Key Statistics

(Dollars in millions)	Three Months Ended September 30		Nine Months Ended September 30	
	2017	2016	2017	2016
Loan production [(1)]:				
Total [(2)]:				
First mortgage	$13,183	$16,865	$37,876	$45,802
Home equity	4,133	3,541	12,871	11,649
Consumer Banking:				
First mortgage	$9,044	$11,588	$25,679	$32,207
Home equity	3,722	3,139	11,604	10,535

(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 decreased $2.5 billion and $3.7 billion in the three months ended September 30, 2017 compared to the same period in 2016 primarily driven by a higher interest rate environment driving lower first-lien mortgage refinances. First mortgage loan originations in Consumer Banking and for the total Corporation decreased $6.5 billion and $7.9 billion in the nine months ended September 30, 2017 primarily driven by the same factor as described in the three-month discussion.

Home equity production in Consumer Banking and for the total Corporation increased $583 million and $592 million for the three months ended September 30, 2017 compared to the same period in 2016 due to a higher demand based on improving housing trends, and improved engagement with customers. Home equity production in Consumer Banking and for the total Corporation increased $1.1 billion and $1.2 billion for the nine months ended September 30, 2017 primarily driven by the same factors as described in the three-month discussion.

Global Wealth & Investment Management

(Dollars in millions)	Three Months Ended September 30			Nine Months Ended September 30		
	2017	2016	% Change	2017	2016	% Change
Net interest income (FTE basis)	$1,496	$1,394	7 %	$4,653	$4,310	8 %
Noninterest income:						
Investment and brokerage services	2,728	2,585	6	8,073	7,718	5
All other income	396	400	(1)	1,181	1,245	(5)
Total noninterest income	3,124	2,985	5	9,254	8,963	3
Total revenue, net of interest expense (FTE	4,620	4,379	6	13,907	13,273	5

basis)						
Provision for credit losses	16	7	129	50	46	9
Noninterest expense	3,370	3,255	4	10,091	9,816	3
Income before income taxes (FTE basis)	1,234	1,117	10	3,766	3,411	10
Income tax expense (FTE basis)	465	419	11	1,420	1,270	12
Net income	$769	$698	10	$2,346	$2,141	10
Net interest yield (FTE basis)	2.29 %	2.03 %		2.32 %	2.09 %	
Return on average allocated capital	22	21		22	22	
Efficiency ratio (FTE basis)	72.95	74.32		72.56	73.96	

Balance Sheet

	Three Months Ended September 30			Nine Months Ended September 30		
Average	2017	2016	% Change	2017	2016	% Change
Total loans and leases	$154,333	$143,207	8 %	$151,205	$141,169	7 %
Total earning assets	259,564	273,567	(5)	267,732	275,674	(3)
Total assets	275,570	288,820	(5)	283,324	291,382	(3)
Total deposits	239,647	253,812	(6)	247,389	256,356	(3)
Allocated capital	14,000	13,000	8	14,000	13,000	8

Period end	September 30 2017	December 31 2016	% Change
Total loans and leases	$155,871	$148,179	5 %
Total earning assets	259,548	283,151	(8)
Total assets	276,187	298,931	(8)
Total deposits	237,771	262,530	(9)

GWIM consists of two primary businesses: Merrill Lynch Global Wealth Management (MLGWM) and U.S. Trust, Bank of America Private Wealth Management (U.S. Trust).

MLGWM's advisory business provides a high-touch client experience through a network of financial advisors focused on clients with over $250,000 in total investable assets. MLGWM provides tailored solutions to meet our clients' needs through a full set of investment management, brokerage, banking and retirement products.

U.S. Trust, together with MLGWM's Private Banking & Investments Group, provides comprehensive wealth management solutions targeted to high net worth and ultra high net worth clients, as well as customized solutions to meet clients' wealth structuring, investment management, trust and banking needs, including specialty asset management services.

Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016

Net income for GWIM increased $71 million to $769 million due to higher revenue, partially offset by an increase in revenue-related expense. The operating margin was 27 percent compared to 26 percent a year ago.

Net interest income increased $102 million to $1.5 billion driven by higher short-term interest rates. Noninterest income, which primarily includes investment and brokerage services income, increased $139 million to $3.1 billion. This increase was driven by the impact of AUM flows and higher market valuations, partially offset by the impact of changing market dynamics on transactional revenue and AUM pricing. Noninterest expense increased $115 million to $3.4 billion primarily driven by higher revenue-related expense.

The return on average allocated capital was 22 percent, up from 21 percent, as higher net income was partially offset by an increased capital allocation.

MLGWM revenue of $3.8 billion increased five percent due to higher net interest income and asset management fees driven by higher market valuations and AUM flows, partially offset by lower transactional revenue. U.S. Trust revenue of $822 million increased eight percent reflecting higher net interest income and asset management fees driven by higher market valuations and AUM flows.

Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016

Net income for GWIM increased $205 million to $2.3 billion due to higher revenue, partially offset by an increase in noninterest expense. The operating margin was 27 percent compared to 26 percent a year ago.

Net interest income increased $343 million to $4.7 billion. Noninterest income, which primarily includes investment and brokerage services income, increased $291 million to $9.3 billion. Noninterest expense increased $275 million to $10.1 billion. These increases were driven by the same factors as described in the three-month discussion.

The return on average allocated capital was 22 percent for both periods.

Revenue from MLGWM of $11.5 billion increased five percent, and U.S. Trust revenue of $2.5 billion increased seven percent. These increases were due to the same factors as described in the three-month discussion.

Key Indicators and Metrics

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions, except as noted)	2017	2016	2017	2016
Revenue by Business				
Merrill Lynch Global Wealth Management	$3,796	$3,617	$11,452	$10,886
U.S. Trust	822	761	2,450	2,300
Other [1]	2	1	5	87
Total revenue, net of interest expense (FTE basis)	$4,620	$4,379	$13,907	$13,273
Client Balances by Business, at period end				
Merrill Lynch Global Wealth Management			$2,245,499	$2,089,683
U.S. Trust			430,684	400,538
Total client balances			$2,676,183	$2,490,221
Client Balances by Type, at period end				
Assets under management			$1,036,048	$871,026
Brokerage assets			1,112,178	1,095,635
Assets in custody			131,680	122,804
Deposits			237,771	252,962
Loans and leases [2]			158,506	147,794
Total client balances			$2,676,183	$2,490,221
Assets Under Management Rollforward				
Assets under management, beginning of period	$990,709	$832,394	$886,148	$900,863
Net client flows [3]	20,749	10,182	77,479	11,648
Market valuation/other [1]	24,590	28,450	72,421	(41,485)
Total assets under management, end of period	$1,036,048	$871,026	$1,036,048	$871,026
Associates, at period end [4, 5]				
Number of financial advisors			17,221	16,834
Total wealth advisors, including financial advisors			19,108	18,714
Total primary sales professionals, including financial advisors and wealth advisors			20,115	19,594
Merrill Lynch Global Wealth Management Metric [5]				
Financial advisor productivity [6] (in thousands)	$994	$979	$1,009	$978
U.S. Trust Metric, at period end [5]				
Primary sales professionals			1,696	1,684

(1) Includes the results of BofA Global Capital Management, the cash management division of Bank of America, and certain administrative items. Also reflects the sale to a third party of approximately $80 billion of BofA Global Capital Management's AUM in the second quarter of 2016.

(2) Includes margin receivables which are classified in customer and other receivables on the Consolidated Balance Sheet.

(3) For the nine months ended September 30, 2016, net client flows included $8.0 billion of net outflows related to BofA Global Capital Management's AUM that were sold during the second quarter of 2016.

(4) Includes financial advisors in the Consumer Banking segment of 2,267 and 2,171 at September 30, 2017 and 2016.

(5) Associate computation is based on headcount.

(6) Financial advisor productivity is defined as annualized MLGWM total revenue, excluding the allocation of certain asset and liability management (ALM) activities, divided by the total average number of financial advisors (excluding financial advisors in the Consumer Banking segment).

Client Balances

Client balances managed under advisory and/or discretion of GWIM are AUM and are typically held in diversified portfolios. Fees earned on AUM are calculated as a percentage of clients' AUM balances. The asset management fees charged to clients per year depend on various factors, but are commonly driven by the breadth of the client's relationship and generally range from 50 to 150 bps on their total AUM. The net client AUM flows represent the net change in clients' AUM balances over a specified period of time, excluding market appreciation/depreciation and other adjustments.

Client balances increased $186.0 billion, or seven percent, to nearly $2.7 trillion at September 30, 2017 compared to September 30, 2016. The increase in client balances was primarily due to AUM which increased $165.0 billion, or 19 percent, due to positive net flows and higher market valuations.

Net Migration Summary

GWIM results are impacted by the net migration of clients and their corresponding deposit, loan and brokerage balances primarily to or from Consumer Banking, as presented in the table below. Migrations result from the movement of clients between business segments to better align with client needs.

Net Migration Summary [1]

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Total deposits, net – to (from) GWIM	$34	$17	$(250)	$(1,040)
Total loans, net – (from) GWIM	(15)	(15)	(145)	—
Total brokerage, net – (from) GWIM	(199)	(264)	(175)	(830)

(1) Migration occurs primarily between GWIM and Consumer Banking.

Global Banking

(Dollars in millions)	Three Months Ended September 30			Nine Months Ended September 30		
	2017	2016	% Change	2017	2016	% Change
Net interest income (FTE basis)	$2,743	$2,470	11 %	$8,229	$7,440	11 %
Noninterest income:						
Service charges	777	780	<(1)	2,351	2,284	3
Investment banking fees	807	796	1	2,661	2,230	19
All other income	659	700	(6)	1,739	1,942	(10)
Total noninterest income	2,243	2,276	(1)	6,751	6,456	5
Total revenue, net of interest expense (FTE basis)	4,986	4,746	5	14,980	13,896	8
Provision for credit losses	48	118	(59)	80	870	(91)
Noninterest expense	2,118	2,152	(2)	6,435	6,450	<(1)
Income before income taxes (FTE basis)	2,820	2,476	14	8,465	6,576	29
Income tax expense (FTE basis)	1,062	925	15	3,192	2,435	31
Net income	$1,758	$1,551	13	$5,273	$4,141	27
Net interest yield (FTE basis)	2.99 %	2.83 %		3.02 %	2.88 %	
Return on average allocated capital	17	17		18	15	
Efficiency ratio (FTE basis)	42.52	45.34		42.97	46.42	

Balance Sheet

	Three Months Ended September 30			Nine Months Ended September 30		
Average	2017	2016	% Change	2017	2016	% Change
Total loans and leases	$346,093	$334,363	4 %	$344,683	$332,474	4 %
Total earning assets	363,560	347,462	5	364,385	345,406	5
Total assets	414,755	395,479	5	414,867	394,425	5
Total deposits	315,692	307,288	3	307,163	301,175	2
Allocated capital	40,000	37,000	8	40,000	37,000	8

Period end	September 30 2017	December 31 2016	% Change
Total loans and leases	$349,838	$339,271	3 %
Total earning assets	371,159	356,241	4
Total assets	423,185	408,330	4
Total deposits	319,545	307,630	4

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. Our lending products and services include commercial loans, leases, commitment facilities, trade finance, commercial real estate lending and asset-based lending. Our treasury solutions business includes treasury management, foreign exchange and short-term investing options. We also provide investment banking products to our clients such as debt and equity underwriting and distribution, and merger-related and other advisory services. Underwriting debt and equity issuances, fixed-income and equity research, and certain market-based activities are executed through our global broker-dealer affiliates, which are our primary dealers in several countries. Within Global Banking, Global Commercial Banking clients generally include middle-market companies, commercial real estate firms and not-for-profit companies. Global Corporate Banking clients generally include large global corporations, financial institutions and leasing clients. Business Banking clients include mid-sized U.S.-based businesses requiring customized and integrated financial advice and solutions.

Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016

Net income for Global Banking increased $207 million to $1.8 billion driven by higher revenue and lower provision for credit losses.

Revenue increased $240 million to $5.0 billion driven by higher net interest income. Net interest income increased $273 million to $2.7 billion primarily driven by the impact of higher short-term rates, as well as loan and deposit growth, partially offset by modest loan spread compression. Noninterest income decreased $33 million to $2.2 billion largely due to the impact of loans and loan-related hedging activity in the fair value option portfolio, partially offset by higher leasing-related revenue.

The provision for credit losses decreased $70 million to $48 million driven by reductions in energy exposures.

Noninterest expense decreased $34 million to $2.1 billion driven by lower revenue-related incentives, partially offset by investments in technology and relationship bankers.

The return on average allocated capital remained relatively unchanged at 17 percent as higher net income offset the impact of $3.0 billion in additional allocated capital. For more information on capital allocated to the business segments, see Business Segment Operations on page 14.

Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016

Net income for Global Banking increased $1.1 billion to $5.3 billion driven by higher revenue and lower provision for credit losses.

Revenue increased $1.1 billion to $15.0 billion driven by higher net interest income and noninterest income. Net interest income increased $789 million to $8.2 billion driven by loan-related growth, an increased deposit base driven by higher short-term rates and the impact of the allocation of ALM activities, partially offset by margin compression. Noninterest income increased $295 million to $6.8 billion largely due to higher investment banking fees.

The provision for credit losses decreased $790 million to $80 million primarily driven by reductions in energy exposures. Noninterest expense decreased $15 million to $6.4 billion primarily driven by lower personnel and operating expense, partially offset by higher FDIC expense and investments in technology.

The return on average allocated capital was 18 percent, up from 15 percent, as higher net income was partially offset by an

increased capital allocation. For more information on capital allocated to the business segments, see Business Segment Operations on page 14.

Global Corporate, Global Commercial and Business Banking

Global Corporate, Global Commercial and Business Banking each include Business Lending and Global Transaction Services activities. Business Lending includes various lending-related products and services, and related hedging activities, including commercial loans, leases, commitment facilities, trade finance, real estate lending and asset-based lending. Global Transaction Services includes deposits, treasury management, credit card, foreign exchange and short-term investment products.

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

	Three Months Ended September 30							
	Global Corporate Banking		Global Commercial Banking		Business Banking		Total	
(Dollars in millions)	2017	2016	2017	2016	2017	2016	2017	2016
Revenue								
Business Lending	$1,127	$1,113	$1,090	$1,069	$101	$91	$2,318	$2,273
Global Transaction Services	840	738	758	671	217	182	1,815	1,591
Total revenue, net of interest expense	$1,967	$1,851	$1,848	$1,740	$318	$273	$4,133	$3,864
Balance Sheet								
Average								
Total loans and leases	$159,417	$153,249	$168,945	$163,446	$17,659	$17,658	$346,021	$334,353
Total deposits	149,564	144,694	129,440	127,161	36,687	35,433	315,691	307,288

	Nine Months Ended September 30							
	Global Corporate Banking		Global Commercial Banking		Business Banking		Total	

	2017	2016	2017	2016	2017	2016	2017	2016
Revenue								
Business Lending	$3,322	$3,269	$3,186	$3,129	$301	$280	$6,809	$6,678
Global Transaction Services	2,470	2,171	2,217	2,036	625	549	5,312	4,756
Total revenue, net of interest expense	$5,792	$5,440	$5,403	$5,165	$926	$829	$12,121	$11,434
Balance Sheet								
Average								
Total loans and leases	$157,144	$152,772	$169,751	$162,207	$17,762	$17,467	$344,657	$332,446
Total deposits	146,627	140,817	124,446	125,676	36,092	34,685	307,165	301,178
Period end								
Total loans and leases	$161,441	$151,825	$170,825	$164,518	$17,579	$17,760	$349,845	$334,103
Total deposits	147,893	141,754	135,249	124,995	36,402	35,656	319,544	302,405

Business Lending revenue increased $45 million and $131 million for the three and nine months ended September 30, 2017 compared to the same periods in 2016. The increase in the three-month period was driven by the impact of loan growth and lease-related activities and the allocation of ALM activities, partially offset by credit spread compression. The increase in the nine-month period was driven by the impact of the allocation of ALM activities and loans and loan-related hedging activity, partially offset by lower revenues from commercial real estate activity.

Global Transaction Services revenue increased $224 million and $556 million for the three and nine months ended September 30, 2017 compared to the same periods in 2016 driven by the impact of an increase in deposit balances and higher short-term rates, the allocation of ALM activities as well as higher treasury-related revenue.

Average loans and leases increased three percent and four percent for the three and nine months ended September 30, 2017

compared to the same periods in 2016 driven by growth in the commercial and industrial, and leasing portfolios.

Average deposits increased three percent and two percent for the three and nine months ended September 30, 2017 compared to the same periods in 2016 due to growth with new and existing clients.

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. 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

	Three Months Ended September 30				Nine Months Ended September 30			
	Global Banking		Total Corporation		Global Banking		Total Corporation	
(Dollars in millions)	2017	2016	2017	2016	2017	2016	2017	2016
Products								
Advisory	$322	$295	$374	$328	$1,177	$913	$1,262	$1,007
Debt issuance	397	405	962	908	1,170	1,060	2,789	2,466
Equity issuance	88	96	193	261	314	257	736	681
Gross investment banking fees	807	796	1,529	1,497	2,661	2,230	4,787	4,154
Self-led deals	(18)	(10)	(52)	(39)	(89)	(36)	(194)	(135)
Total investment banking fees	$789	$786	$1,477	$1,458	$2,572	$2,194	$4,593	$4,019

Total Corporation investment banking fees, excluding self-led deals, of $1.5 billion and $4.6 billion, which are primarily included within Global Banking and Global Markets, increased one percent and 14 percent for the three and nine months ended September

30, 2017 compared to the same periods in 2016. The increase for both periods was driven by higher advisory fees and higher debt issuance fees due to an increase in overall client activity and market fee pools.

Global Markets

	Three Months Ended September 30			Nine Months Ended September 30		
(Dollars in millions)	2017	2016	% Change	2017	2016	% Change
Net interest income (FTE basis)	$899	$1,119	(20)%	$2,812	$3,391	(17)%
Noninterest income:						
Investment and brokerage services	496	490	1	1,548	1,583	(2)
Investment banking fees	623	645	(3)	1,879	1,742	8
Trading account profits	1,714	1,934	(11)	5,634	5,401	4
All other income	168	170	(1)	682	501	36
Total noninterest income	3,001	3,239	(7)	9,743	9,227	6
Total revenue, net of interest expense (FTE basis)	3,900	4,358	(11)	12,555	12,618	<(1)
Provision for credit losses	(6)	19	(132)	2	23	(91)
Noninterest expense	2,710	2,656	2	8,117	7,690	6
Income before income taxes (FTE basis)	1,196	1,683	(29)	4,436	4,905	(10)
Income tax expense (FTE basis)	440	609	(28)	1,553	1,746	(11)
Net income	$756	$1,074	(30)	$2,883	$3,159	(9)
Return on average allocated capital	9 %	12 %		11 %	11 %	
Efficiency ratio (FTE basis)	69.48	60.94		64.64	60.94	

Balance Sheet

Average	Three Months Ended September 30 2017	2016	% Change	Nine Months Ended September 30 2017	2016	% Change
Trading-related assets:						
Trading account securities	$216,988	$185,785	17 %	$214,190	$183,928	16 %
Reverse repurchases	101,556	89,435	14	99,998	89,218	12
Securities borrowed	81,950	87,872	(7)	83,770	86,159	(3)
Derivative assets	41,789	52,325	(20)	41,184	52,164	(21)
Total trading-related assets [1]	442,283	415,417	6	439,142	411,469	7
Total loans and leases	72,347	69,043	5	70,692	69,315	2
Total earning assets [1]	446,754	422,636	6	444,478	421,221	6
Total assets	642,430	584,069	10	631,686	582,006	9
Total deposits	32,125	32,840	(2)	32,397	34,409	(6)
Allocated capital	35,000	37,000	(5)	35,000	37,000	(5)

Period end	September 30 2017	December 31 2016	% Change
Total trading-related assets [1]	$426,371	$380,562	12 %
Total loans and leases	76,225	72,743	5
Total earning assets [1]	441,656	397,023	11
Total assets	629,270	566,060	11
Total deposits	33,382	34,927	(4)

[1] Trading-related assets include derivative assets, which are considered non-earning assets.

Global Markets offers sales and trading services, including research, 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. Global Markets provides market-making, financing, securities clearing, settlement and custody services globally to our institutional investor clients in support of their investing and trading activities. We also work with our commercial and corporate clients to provide risk management products using interest rate, equity, credit, currency and commodity derivatives, foreign exchange, fixed-income and mortgage-related products. As a result of our market-making activities in these products, we may be required to manage risk in a broad range of financial products including government securities, equity and equity-linked securities, high-grade and high-yield corporate debt securities, syndicated loans, mortgage-backed securities (MBS), commodities and asset-backed securities. The economics of certain investment banking and underwriting activities are shared primarily between Global Markets and Global Banking 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. For more information on investment banking fees on a consolidated basis, see page 23.

Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016

Net income for Global Markets decreased $318 million to $756 million driven by lower sales and trading revenue, as well as a decline in investment banking fees and increased noninterest expense. Net DVA losses were $21 million compared to losses of $127 million. Sales and trading revenue, excluding net DVA, decreased $577 million primarily due to less favorable FICC market conditions across credit products and lower volatility in rates products compared to the prior-year period. Noninterest expense increased $54 million to $2.7 billion as continued investments in technology were partially offset by lower operating costs.

Average trading-related assets increased $26.9 billion to $442.3 billion primarily driven by targeted growth in client financing activities in the global equities business.

The return on average allocated capital was nine percent, down from 12 percent as lower net income was partially offset by a decreased capital allocation.

Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016

Net income for Global Markets decreased $276 million to $2.9 billion. Net DVA losses were $310 million compared to losses of $137 million. Excluding net DVA, net income decreased $169 million to $3.1 billion primarily driven by higher noninterest expense and lower sales and trading revenue, partially offset by higher investment banking fees. Sales and trading revenue, excluding net DVA, decreased $168 million primarily due to weaker performance in rates products and emerging markets. Noninterest expense increased $427 million to $8.1 billion primarily due to litigation expense in the nine months ended September 30, 2017 compared to a litigation recovery in the same period in 2016 and continued investments in technology.

Average trading-related assets increased $27.7 billion to $439.1 billion primarily driven by targeted growth in client financing activities in the global equities business. Period-end trading-related assets increased $45.8 billion to $426.4 billion driven by additional inventory in FICC to meet expected client demand as

well as targeted growth in client financing activities in the global equities business.

The return on average allocated capital remained at 11 percent, reflecting lower net income offset by a decrease in average allocated capital.

Sales and Trading Revenue

Sales and trading revenue includes unrealized and realized gains and losses on trading and other assets, net interest income, and fees primarily from commissions on equity securities. Sales and trading revenue is segregated into fixed-income (government debt obligations, investment and non-investment grade corporate debt obligations, commercial MBS, residential mortgage-backed securities, collateralized loan obligations (CLOs), interest rate and credit derivative contracts), currencies (interest rate and foreign exchange contracts), commodities (primarily futures, forwards, swaps and options) and equities (equity-linked derivatives and cash equity activity). 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 the impact of net DVA, which is a non-GAAP financial measure. We believe the use of this non-GAAP financial measure provides additional useful information to assess the underlying performance of these businesses and to allow better comparison of period-over-period operating performance.

Sales and Trading Revenue [1, 2]

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Sales and trading revenue				
Fixed-income, currencies and commodities	$2,152	$2,646	$7,068	$7,507
Equities	977	954	3,170	3,072
Total sales and trading revenue	$3,129	$3,600	$10,238	$10,579
Sales and trading revenue, excluding net DVA [3]				
Fixed-income, currencies and commodities	$2,166	$2,767	$7,350	$7,647
Equities	984	960	3,198	3,069
Total sales and trading revenue, excluding net DVA	$3,150	$3,727	$10,548	$10,716

(1) Includes FTE adjustments of $63 million and $162 million for the three and nine months ended September 30, 2017 compared to $49 million and $136 million for the same periods in 2016. For more information on sales and trading revenue, see Note 2 – Derivatives to the Consolidated Financial Statements.

(2)

Includes Global Banking sales and trading revenue of $61 million and $175 million for the three and nine months ended September 30, 2017 compared to $57 million and $336 million for the same periods in 2016.

(3) FICC and Equities sales and trading revenue, excluding net DVA, is a non-GAAP financial measure. FICC net DVA losses were $14 million and $282 million for the three and nine months ended September 30, 2017 compared to net DVA losses of $121 million and $140 million for the same periods in 2016. Equities net DVA losses were $7 million and $28 million for the three and nine months ended September 30, 2017 compared to net DVA losses of $6 million and gains of $3 million for the same periods in 2016.

The explanations for period-over-period changes in sales and trading, FICC and Equities revenue, as set forth below, would be the same if net DVA was included.

Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016

FICC revenue, excluding net DVA, decreased $601 million due to less favorable market conditions across credit-related products and lower volatility in rates products in the current-year quarter. Equities revenue, excluding net DVA, increased $24 million

primarily due to growth in client financing activities, partially offset by slower secondary markets.

Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016

FICC revenue, excluding net DVA, decreased $297 million as weaker performance in rates products and emerging markets were partially offset by strength in credit and G10 currencies. Equities revenue, excluding net DVA, increased $129 million primarily due to growth in client financing activities.

All Other

	Three Months Ended September 30			Nine Months Ended September 30		
(Dollars in millions)	2017	2016	% Change	2017	2016	% Change
Net interest income (FTE basis)	$52	$157	(67)%	$232	$ 504	(54)%
Noninterest income:						
Card income	—	46	(100)	71	145	(51)
Mortgage banking income (loss)	(163)	292	n/m	(72)	577	(112)
Gains on sales of debt securities	125	51	145	278	490	(43)
All other income (loss)	(215)	(134)	60	72	(746)	(110)
Total noninterest income (loss)	(253)	255	n/m	349	466	(25)
Total revenue, net of interest expense (FTE basis)	(201)	412	(149)	581	970	(40)
Provision for credit losses	(191)	8	n/m	(376)	(71)	n/m
Noninterest expense	482	1,047	(54)	3,790	4,510	(16)
Loss before income taxes (FTE basis)	(492)	(643)	(23)	(2,833)	(3,469)	(18)
Income tax expense (benefit) (FTE basis)	(709)	(462)	53	(2,033)	(1,985)	2
Net income (loss)	$217	$(181)	n/m	$(800)	$ (1,484)	(46)

Balance Sheet [(1)]

	Three Months Ended September 30			Nine Months Ended September 30		
Average	2017	2016	% Change	2017	2016	% Change
Total loans and leases	$76,546	$105,298	(27)%	$86,294	$ 111,611	(23)%
Total deposits	25,273	27,541	(8)	25,629	27,588	(7)
Period end				September 30 2017	December 31 2016	% Change
Total loans and leases [(2)]				$72,823	$ 96,713	(25)%

Total deposits	24,072	23,061	4

(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. Such allocated assets were $510.1 billion and $517.9 billion for the three and nine months ended September 30, 2017 compared to $500.4 billion and $497.8 billion for the same periods in 2016, and $515.0 billion and $518.7 billion at September 30, 2017 and December 31, 2016.

(2) Included $9.2 billion of non-U.S. credit card loans, which were included in assets of business held for sale on the Consolidated Balance Sheet at December 31, 2016. During the second quarter of 2017, the Corporation sold its non-U.S. consumer credit card business.

n/m = not meaningful

All Other consists of ALM activities, equity investments, non-core mortgage loans and servicing activities, the net impact of periodic revisions to the MSR valuation model for both core and non-core MSRs and the related economic hedge results and ineffectiveness, other liquidating businesses, residual expense allocations and other. ALM activities encompass certain residential mortgages, debt securities, interest rate and foreign currency risk management activities, the impact of certain allocation methodologies and accounting hedge ineffectiveness. The results of certain ALM activities are allocated to our business segments. For more information on our ALM activities, see Note 17 – Business Segment Information to the Consolidated Financial Statements. Equity investments include our merchant services joint venture as well as Global Principal Investments (GPI) which is comprised of a portfolio of equity, real estate and other alternative investments. For more information on our merchant services joint venture, see Note 10 – Commitments and Contingencies to the Consolidated Financial Statements.

During the second quarter of 2017, the Corporation sold its non-U.S. consumer credit card business. For more information on the sale, see Note 1 – Summary of Significant Accounting Principles to the Consolidated Financial Statements.

The Corporation classifies consumer real estate loans as core or non-core based on loan and customer characteristics such as origination date, product type, LTV, FICO score and delinquency status. For more information on the core and non-core portfolios, see Consumer Portfolio Credit Risk Management on page 39. 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. For more information on our interest rate and liquidity risk management activities, see Liquidity Risk on page 35 and Interest Rate Risk Management for the Banking Book on page 63. During

the nine months ended September 30, 2017, residential mortgage loans held for ALM activities decreased $4.9 billion to $29.8 billion at September 30, 2017 primarily as a result of payoffs and paydowns outpacing new originations. Non-core residential mortgage and home equity loans, which are principally run-off portfolios, including certain loans accounted for under the fair value option and MSRs pertaining to non-core loans serviced for others, are also held in All Other. During the nine months ended September 30, 2017, total non-core loans decreased $9.3 billion to $43.8 billion at September 30, 2017 due primarily to payoffs and paydowns, as well as loan sales.

Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016

Results for All Other improved $398 million to net income of $217 million from a net loss of $181 million in the prior-year period, reflecting lower noninterest expense and a benefit in the provision for credit losses, partially offset by a decline in revenue. Revenue declined $613 million to a loss of $201 million reflecting lower mortgage banking income and the impact of the sale of the non-U.S. consumer credit card business. Mortgage banking income was negatively impacted by less favorable valuations on mortgage servicing rights, net of related hedges, and an increase in the provision for representations and warranties.

The provision for credit losses improved $199 million to a benefit of $191 million primarily driven by loan sale recoveries, continued runoff of the non-core portfolio and the sale of the non-U.S. consumer credit card business. Noninterest expense decreased $565 million to $482 million driven by lower personnel and operational costs due to the sale of the non-U.S. consumer credit card business and lower litigation expense in the non-core mortgage business.

The income tax benefit increased to $709 million from a benefit of $462 million as the prior-year quarter included a $350 million charge for the impact of the U.K. tax law changes enacted in September 2016. Both periods included income tax benefit adjustments to eliminate the FTE treatment in noninterest income of certain tax credits recorded in Global Banking.

Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016

The net loss for All Other decreased $684 million to a net loss of $800 million, reflecting lower noninterest expense, the net gain on sale of the non-U.S. consumer credit card business in the second quarter and a larger benefit in the provision for credit losses, offset by a decline in revenue. Revenue declined $389 million primarily due to lower mortgage banking income. Mortgage banking income decreased $649 million driven by the same factors as described in the three-month discussion. Gains on sales of loans included in all other income, including nonperforming and other delinquent loans, were $108 million compared to gains of $214 million in the same period in 2016.

The benefit in the provision for credit losses increased $305 million to a benefit of $376 million driven by the same factors as described in the three-month discussion. Noninterest expense decreased $720 million to $3.8 billion driven by lower litigation expense, lower personnel expense and a decline in non-core mortgage servicing costs, partially offset by a $295 million impairment charge related to certain data centers in the process of being sold.

The income tax benefit increased $48 million to a benefit of $2.0 billion, reflecting tax expense of $690 million recognized in connection with the sale of the non-U.S. consumer credit card business and tax benefits related to a new accounting standard on share-based compensation. The prior-year period included a $350 million charge for the impact of the U.K. tax law changes. Both periods included income tax benefit adjustments to eliminate the FTE treatment in noninterest income 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 10 – Commitments and Contingencies to the Consolidated Financial Statements, Off-Balance Sheet Arrangements and Contractual Obligations in the MD&A of the Corporation's 2016 Annual Report on Form 10-K, as well as Note 11 – Long-term Debt and Note 12 – Commitments and Contingencies to the Consolidated Financial Statements of the Corporation's 2016 Annual Report on Form 10-K.

Representations and Warranties

For more information on representations and warranties, the reserve for representations and warranties exposures and the corresponding estimated range of possible loss, see Note 7 – Representations and Warranties Obligations and Corporate

Guarantees to the Consolidated Financial Statements of the Corporation's 2016 Annual Report on Form 10-K and, 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 2016 Annual Report on Form 10-K.

At September 30, 2017 and December 31, 2016, we had $17.6 billion and $18.3 billion of unresolved repurchase claims, predominately related to subprime and pay option first-lien loans and home equity loans. Outstanding repurchase claims remain unresolved primarily due to (1) the level of detail, support and analysis accompanying such claims, which impact overall claim quality and, therefore, claim resolution and (2) the lack of an established process to resolve disputes related to these claims.

In addition to unresolved repurchase claims, we have received notifications from a sponsor of third-party securitizations with whom we engaged in whole-loan transactions indicating that we may have indemnity obligations with respect to specific loans for which we have not received a repurchase request. These notifications were received prior to 2015, and totaled $1.3 billion at both September 30, 2017 and December 31, 2016. During the three months ended September 30, 2017, we reached an agreement with the party requesting indemnity, subject to acceptance of a settlement agreement by a securitization trustee; the impact of this agreement is included in the reserve for representations and warranties.

The reserve for representations and warranties and corporate guarantees is included in accrued expenses and other liabilities on the Consolidated Balance Sheet and the related provision is included in mortgage banking income. At September 30, 2017 and December 31, 2016, the reserve for representations and warranties was $2.2 billion and $2.3 billion. For the three and nine months ended September 30, 2017, the representations and warranties provision was $198 million and $193 million compared to $99 million and $158 million for the same periods in 2016. The increase in the provision was the result of advanced negotiations with certain counterparties where we believe we will reach settlements on several outstanding legacy matters.

In addition, we currently estimate that the range of possible loss for representations and warranties exposures could be up to $2 billion over existing accruals at September 30, 2017. The estimated range of possible loss represents a reasonably possible loss, but does not represent a probable loss, and is based on currently available information, significant judgment and a number of assumptions that are subject to change.

Future provisions and/or ranges of possible loss associated with obligations under representations and warranties may be significantly impacted if future experiences are different from historical experience or our understandings, interpretations or assumptions. Adverse developments, with respect to one or more of the assumptions underlying the reserve for representations and warranties and the corresponding estimated range of possible loss, such as counterparties successfully challenging or avoiding the application of the relevant statute of limitations, could result in significant increases to future provisions and/or the estimated range of possible loss.

Other Mortgage-related Matters

We continue to be subject to additional mortgage-related litigation and disputes, as well as governmental and regulatory scrutiny and investigations, related to our past and current origination, servicing, transfer of servicing and servicing rights, servicing compliance obligations, foreclosure activities, indemnification obligations, and mortgage insurance and captive reinsurance practices with mortgage insurers. The ongoing environment of additional regulation, increased regulatory compliance obligations, and enhanced regulatory enforcement, combined with ongoing uncertainty related to the continuing evolution of the regulatory environment, has resulted in increased operational and compliance costs and may limit our ability to continue providing certain products and services. For more information on management's estimate of the aggregate range of possible loss for certain litigation matters and on regulatory investigations, see Note 10 – Commitments and Contingencies to the Consolidated Financial Statements.

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 risks. 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 (ERC) and the Board.

Our Risk Framework is the foundation for comprehensive management of the 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 management activities, including our Risk Framework, 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 2016 Annual Report on Form 10-K.

Capital Management

The Corporation manages its capital position so its capital is more than adequate to support its business activities and to maintain capital, risk and risk appetite commensurate with one another. Additionally, we seek to maintain safety and soundness at all times, even under adverse scenarios, take advantage of organic growth opportunities, meet obligations to creditors and counterparties, maintain ready access to financial markets, continue to serve as a credit intermediary, remain a source of strength for our subsidiaries, and satisfy current and future regulatory capital requirements. Capital management is integrated into our risk and governance processes, as capital is a key consideration in the development of our strategic plan, risk appetite and risk limits.

We periodically review capital allocated to our businesses and allocate capital annually during the strategic and capital planning processes. For additional information, see Business Segment Operations on page 14.

Comprehensive Capital Analysis and Review 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 Comprehensive Capital Analysis and Review (CCAR) capital plan.

On June 28, 2017, following the Federal Reserve's non-objection to our 2017 CCAR capital plan, the Board authorized the repurchase of $12.9 billion in common stock from July 1, 2017 through June 30, 2018, including approximately $900 million to offset the effect of equity-based compensation plans during the same period. The common stock repurchase authorization includes both common stock and warrants.

During the three months ended September 30, 2017, pursuant to the Board's authorization, we repurchased $3.0 billion of common stock, which includes common stock to offset equity-based compensation awards. The timing and amount of common stock repurchases will be 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 common stock 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 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 issued by U.S. banking regulators including Basel 3, which includes certain transition provisions through January 1, 2019. The Corporation and its primary affiliated banking entity, BANA, are Basel 3 Advanced approaches institutions.

Basel 3 Overview

Basel 3 updated the composition of capital and established a Common equity tier 1 capital ratio. Common equity tier 1 capital primarily includes common stock, retained earnings and accumulated other comprehensive income (OCI), net of deductions and adjustments primarily related to goodwill, deferred tax assets, intangibles and defined benefit pension assets. Under the Basel 3 regulatory capital transition provisions, certain deductions and adjustments to Common equity tier 1 capital are phased in through January 1, 2018. As of January 1, 2017, under the transition provisions, 80 percent of these deductions and adjustments was recognized. Basel 3 also revised minimum capital ratios and buffer requirements, added a supplementary leverage ratio (SLR), and addressed the adequately capitalized minimum requirements under the Prompt Corrective Action (PCA) framework. Finally, Basel 3 established two methods of calculating risk-weighted assets, the Standardized approach and the Advanced approaches. The Standardized approach relies primarily on supervisory risk weights based on exposure type, and the Advanced approaches determine risk weights based on internal models.

As an Advanced approaches institution, we 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.

Minimum Capital Requirements

Minimum capital requirements and related buffers are being phased in from January 1, 2014 through January 1, 2019. The PCA framework establishes categories of capitalization including “well capitalized,” based on the Basel 3 regulatory ratio requirements. U.S. banking regulators are required to take certain mandatory actions depending on the category of capitalization, with no mandatory actions required for “well-capitalized” banking organizations, which included BANA at September 30, 2017.

We are subject to a capital conservation buffer, a countercyclical capital buffer and a global systemically important

bank (G-SIB) surcharge that are being phased in over a three-year period ending January 1, 2019. Once fully phased in, the Corporation’s risk-based capital ratio requirements will include a capital conservation buffer greater than 2.5 percent, plus any applicable countercyclical capital buffer and a G-SIB surcharge in order to avoid restrictions on capital distributions and discretionary bonus payments. The buffers and surcharge must be comprised solely of Common equity tier 1 capital. Under the phase-in provisions, we were required to maintain a capital conservation buffer greater than 1.25 percent plus a G-SIB surcharge of 1.5 percent at September 30, 2017. The countercyclical capital buffer is currently set at zero. We estimate that our fully phased-in G-SIB surcharge will be 2.5 percent. The G-SIB surcharge may differ from this estimate over time. For more information on the Corporation's transition and fully phased-in capital ratios and regulatory requirements, see Table 11.

Supplementary Leverage Ratio

Basel 3 requires Advanced approaches institutions to disclose an SLR. The numerator of the SLR is quarter-end Basel 3 Tier 1 capital. The denominator is total leverage exposure based on the daily average of the sum of on-balance sheet exposures less permitted Tier 1 deductions, as well as the simple average of certain off-balance sheet exposures, as of the end of each month in a quarter. Effective January 1, 2018, the Corporation will be required to maintain a minimum 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. Insured depository institution subsidiaries of BHCs will be required to maintain a minimum 6.0 percent SLR to be considered "well capitalized" under the PCA framework.

Capital Composition and Ratios

Table 11 presents Bank of America Corporation’s transition and fully phased-in capital ratios and related information in accordance with Basel 3 Standardized and Advanced approaches as measured at September 30, 2017 and December 31, 2016. Fully phased-in estimates are non-GAAP financial measures that the Corporation considers to be useful measures in evaluating compliance with new regulatory capital requirements that are not yet effective. For reconciliations to GAAP financial measures, see Table 14. As of September 30, 2017 and December 31, 2016, the

Corporation met the definition of “well capitalized” under current regulatory requirements.

Table 11 Bank of America Corporation Regulatory Capital under Basel 3 [1]

	September 30, 2017					
	Transition			Fully Phased-in		
(Dollars in millions)	Standardized Approach	Advanced Approaches	Regulatory Minimum [2]	Standardized Approach	Advanced Approaches [3]	Regulatory Minimum [4]
Risk-based capital metrics:						
Common equity tier 1 capital	$176,094	$176,094		$173,568	$173,568	
Tier 1 capital	196,438	196,438		195,291	195,291	
Total capital [5]	232,849	223,814		229,779	220,745	
Risk-weighted assets (in billions)	1,407	1,482		1,420	1,460	
Common equity tier 1 capital ratio	12.5 %	11.9 %	7.25 %	12.2 %	11.9 %	9.5 %
Tier 1 capital ratio	14.0	13.3	8.75	13.8	13.4	11.0
Total capital ratio	16.5	15.1	10.75	16.2	15.1	13.0
Leverage-based metrics:						
Adjusted quarterly average assets (in billions) [6]	$2,194	$2,194		$2,193	$2,193	
Tier 1 leverage ratio	9.0 %	9.0 %	4.0	8.9 %	8.9 %	4.0
SLR leverage exposure					$2,742	

(in billions)						
SLR					7.1 %	5.0

	December 31, 2016					
Risk-based capital metrics:						
Common equity tier 1 capital	$168,866	$168,866		$162,729	$162,729	
Tier 1 capital	190,315	190,315		187,559	187,559	
Total capital [5]	228,187	218,981		223,130	213,924	
Risk-weighted assets (in billions)	1,399	1,530		1,417	1,512	
Common equity tier 1 capital ratio	12.1 %	11.0 %	5.875 %	11.5 %	10.8 %	9.5 %
Tier 1 capital ratio	13.6	12.4	7.375	13.2	12.4	11.0
Total capital ratio	16.3	14.3	9.375	15.8	14.2	13.0
Leverage-based metrics:						
Adjusted quarterly average assets (in billions) [6]	$2,131	$2,131		$2,131	$2,131	
Tier 1 leverage ratio	8.9 %	8.9 %	4.0	8.8 %	8.8 %	4.0
SLR leverage exposure (in billions)					$2,702	
SLR					6.9 %	5.0

[1] As an Advanced approaches institution, we are required to report regulatory capital risk-weighted assets and ratios under both the Standardized and Advanced approaches. The approach that yields the lower ratio is to be used to

assess capital adequacy and was the Advanced approaches method at September 30, 2017 and December 31, 2016.

(2) The September 30, 2017 and December 31, 2016 amounts include a transition capital conservation buffer of 1.25 percent and 0.625 percent, and a transition G-SIB surcharge of 1.5 percent and 0.75 percent. The countercyclical capital buffer for both periods is zero.

(3) Basel 3 fully phased-in Advanced approaches estimates assume approval by U.S. banking regulators of our internal models methodology (IMM) for calculating counterparty credit risk regulatory capital for derivatives. As of September 30, 2017, we did not have regulatory approval of the IMM model. Basel 3 fully phased-in Common equity tier 1 capital ratio would be reduced by approximately 25 bps if IMM is not used.

(4) Fully phased-in regulatory minimums assume a capital conservation buffer of 2.5 percent and estimated G-SIB surcharge of 2.5 percent. The estimated fully phased-in countercyclical capital buffer is currently set at zero. We will be subject to fully phased-in regulatory minimums on January 1, 2019. The fully phased-in SLR minimum assumes a leverage buffer of 2.0 percent and is applicable on January 1, 2018.

(5) 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.

(6) Reflects adjusted average total assets for the three months ended September 30, 2017 and December 31, 2016.

Common equity tier 1 capital under Basel 3 Advanced – Transition was $176.1 billion at September 30, 2017, an increase of $7.2 billion compared to December 31, 2016 driven by earnings and the exercise of warrants associated with the Series T preferred stock, partially offset by common stock repurchases, dividends and the phase-in under Basel 3 transition provisions of deductions, primarily related to deferred tax assets. During the nine months ended September 30, 2017, total capital increased $4.8 billion

primarily driven by earnings, partially offset by common stock repurchases, dividends and the phase-in under Basel 3 transition provisions.

Risk-weighted assets decreased $48 billion during the nine months ended September 30, 2017 to $1,482 billion primarily due to model improvements, the sale of the non-U.S. consumer credit card business, improved credit quality and lower market risk.

Table 12 shows the capital composition as measured under Basel 3 – Transition at September 30, 2017 and December 31, 2016.

Table 12 Capital Composition under Basel 3 – Transition[1, 2]

(Dollars in millions)	September 30 2017	December 31 2016
Total common shareholders’ equity	$ 250,136	$ 241,620
Goodwill	(68,413)	(69,191)
Deferred tax assets arising from net operating loss and tax credit carryforwards	(5,428)	(4,976)
Adjustments for amounts recorded in accumulated OCI attributed to AFS Securities and defined benefit postretirement plans	747	1,899
Adjustments for amounts recorded in accumulated OCI attributed to certain cash flow hedges	739	895
Intangibles, other than mortgage servicing rights and goodwill	(1,263)	(1,198)
Defined benefit pension fund assets	(749)	(512)
DVA related to liabilities and derivatives	632	413
Other	(307)	(84)
Common equity tier 1 capital	176,094	168,866
Qualifying preferred stock, net of issuance cost	22,323	25,220
Deferred tax assets arising from net operating loss and tax credit carryforwards	(1,357)	(3,318)
Defined benefit pension fund assets	(187)	(341)
DVA related to liabilities and derivatives under transition	158	276
Other	(593)	(388)
Total Tier 1 capital	196,438	190,315
Long-term debt qualifying as Tier 2 capital	23,129	23,365
Eligible credit reserves included in Tier 2 capital	2,420	3,035
Nonqualifying capital instruments subject to phase out from Tier 2 capital	1,893	2,271
Other	(66)	(5)
Total Basel 3 Capital	$ 223,814	$ 218,981

(1) See Table 11, footnote 1.

(2) Deductions from and adjustments to regulatory capital subject to transition provisions under Basel 3 are generally recognized in 20 percent annual increments, and will be fully recognized as of January 1, 2018. Any assets that are a direct deduction from the computation of capital are excluded from risk-weighted assets and adjusted average total assets.

Table 13 presents the components of our risk-weighted assets as measured under Basel 3 – Transition at September 30, 2017 and December 31, 2016.

Table 13 Risk-weighted Assets under Basel 3 – Transition

(Dollars in billions)	September 30, 2017		December 31, 2016	
	Standardized Approach	Advanced Approaches	Standardized Approach	Advanced Approaches
Credit risk	$1,348	$ 868	$1,334	$ 903
Market risk	59	58	65	63
Operational risk	n/a	500	n/a	500

Risks related to CVA	n/a	56	n/a	64
Total risk-weighted assets	$1,407	$ 1,482	$1,399	$ 1,530

n/a = not applicable

Table 14 presents a reconciliation of regulatory capital in accordance with Basel 3 Standardized – Transition to the Basel 3 Standardized approach fully phased-in estimates and Basel 3 Advanced approaches fully phased-in estimates at September 30, 2017 and December 31, 2016.

Table 14 Regulatory Capital Reconciliations between Basel 3 Transition to Fully Phased-in [1]

(Dollars in millions)	September 30 2017	December 31 2016
Common equity tier 1 capital (transition)	$ 176,094	$ 168,866
Deferred tax assets arising from net operating loss and tax credit carryforwards phased in during transition	(1,357)	(3,318)
Accumulated OCI phased in during transition	(747)	(1,899)
Intangibles phased in during transition	(316)	(798)
Defined benefit pension fund assets phased in during transition	(187)	(341)
DVA related to liabilities and derivatives	158	276

phased in during transition		
Other adjustments and deductions phased in during transition	(77)	(57)
Common equity tier 1 capital (fully phased-in)	173,568	162,729
Additional Tier 1 capital (transition)	20,344	21,449
Deferred tax assets arising from net operating loss and tax credit carryforwards phased out during transition	1,357	3,318
Defined benefit pension fund assets phased out during transition	187	341
DVA related to liabilities and derivatives phased out during transition	(158)	(276)
	(7)	(2)

Other transition adjustments to additional Tier 1 capital		
Additional Tier 1 capital (fully phased-in)	21,723	24,830
Tier 1 capital (fully phased-in)	195,291	187,559
Tier 2 capital (transition)	27,376	28,666
Nonqualifying capital instruments phased out during transition	(1,893)	(2,271)
Other adjustments to Tier 2 capital	9,005	9,176
Tier 2 capital (fully phased-in)	34,488	35,571
Basel 3 Standardized approach Total capital (fully phased-in)	229,779	223,130
Change in Tier 2 qualifying allowance for credit losses	(9,034)	(9,206)
Basel 3 Advanced approaches Total	$ 220,745	$ 213,924

capital (fully phased-in)		
Risk-weighted assets – As reported to Basel 3 (fully phased-in)		
Basel 3 Standardized approach risk-weighted assets as reported	$ 1,407,093	$ 1,399,477
Changes in risk-weighted assets from reported to fully phased-in	12,710	17,638
Basel 3 Standardized approach risk-weighted assets (fully phased-in)	$ 1,419,803	$ 1,417,115
Basel 3 Advanced approaches risk-weighted assets as reported	$ 1,481,919	$ 1,529,903
Changes in risk-weighted assets from reported to fully phased-in	(21,768)	(18,113)
Basel 3 Advanced approaches risk-weighted assets	$ 1,460,151	$ 1,511,790

(fully phased-in) [2]

[1] See Table 11, footnote 1.

[2] Basel 3 fully phased-in Advanced approaches estimates assume approval by U.S. banking regulators of our IMM for calculating counterparty credit risk regulatory capital for derivatives. As of September 30, 2017, we did not have regulatory approval of the IMM model. Basel 3 fully phased-in Common equity tier 1 capital ratio would be reduced by approximately 25 bps if IMM is not used.

Bank of America, N.A. Regulatory Capital

Table 15 presents transition regulatory capital information for BANA in accordance with Basel 3 Standardized and Advanced approaches as measured at September 30, 2017 and December 31, 2016. As of September 30, 2017, BANA met the definition of "well capitalized" under the PCA framework.

Table 15 Bank of America, N.A. Regulatory Capital under Basel 3

	September 30, 2017					
	Standardized Approach			Advanced Approaches		
(Dollars in millions)	Ratio	Amount	Minimum Required [1]	Ratio	Amount	Minimum Required [1]
Common equity tier 1 capital	12.8%	$151,761	6.5 %	14.8%	$151,761	6.5 %
Tier 1 capital	12.8	151,761	8.0	14.8	151,761	8.0
Total capital	13.9	164,735	10.0	15.2	156,071	10.0
Tier 1 leverage	9.2	151,761	5.0	9.2	151,761	5.0
	December 31, 2016					
Common equity tier 1 capital	12.7%	$149,755	6.5 %	14.3%	$149,755	6.5 %
Tier 1 capital	12.7	149,755	8.0	14.3	149,755	8.0
Total capital	13.9	163,471	10.0	14.8	154,697	10.0
Tier 1 leverage	9.3	149,755	5.0	9.3	149,755	5.0

[1] Percent required to meet guidelines to be considered "well capitalized" under the PCA framework.

Regulatory Developments

Minimum Total Loss-Absorbing Capacity

The Federal Reserve has established a final rule effective January 1, 2019, which includes minimum external total loss-absorbing capacity (TLAC) requirements to improve the resolvability and resiliency of large, interconnected BHCs. We estimate our minimum required external TLAC would be the greater of 22.5 percent of risk-weighted assets or 9.5 percent of SLR leverage exposure. In addition, U.S. G-SIBs must meet a minimum long-term debt requirement. Our minimum required long-term debt is estimated to be the greater of 8.5 percent of risk-weighted assets or 4.5 percent of SLR leverage exposure. As of September 30, 2017, the Corporation's TLAC and long-term debt exceeded our estimated 2019 minimum requirements.

Revisions to Approaches for Measuring Risk-weighted Assets

The Basel Committee has several open proposals to revise key methodologies for measuring risk-weighted assets. The proposals include a standardized approach for credit risk, standardized approach for operational risk, revisions to the credit valuation adjustment (CVA) risk framework and constraints on the use of internal models. The Basel Committee has also finalized a revised standardized model for counterparty credit risk, revisions to the securitization framework and its fundamental review of the trading book, which updates both modeled and standardized approaches for market risk measurement. These revisions are to be coupled with a proposed capital floor framework to limit the extent to which banks can reduce risk-weighted asset levels through the use of internal models, both at the input parameter and aggregate risk-weighted asset level. After the outstanding proposals are finalized by the Basel Committee, U.S. banking regulators may update the U.S. Basel 3 rules to incorporate the Basel Committee revisions.

Revisions to the G-SIB Assessment Framework

On March 30, 2017, the Basel Committee issued a consultative document with proposed revisions to the G-SIB surcharge assessment framework. The proposed revisions would include removing the cap on the substitutability category, expanding the scope of consolidation to include insurance subsidiaries in three categories (size, interconnectedness and complexity) and modifying the substitutability category weights with the

introduction of a new trading volume indicator. The Basel Committee has also requested feedback on a new short-term wholesale funding indicator, which would be included in the interconnectedness category. The U.S. banking regulators may update the U.S. G-SIB surcharge rule to incorporate the Basel Committee revisions.

For more information on our Regulatory Developments, see Capital Management – Regulatory Developments in the MD&A of the Corporation's 2016 Annual Report on Form 10-K.

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) and Merrill Lynch Professional Clearing Corp (MLPCC). MLPCC is a fully-guaranteed subsidiary of MLPF&S and provides clearing and settlement services. Both entities are subject to the net capital requirements of Securities and Exchange Commission (SEC) Rule 15c3-1. Both entities are also registered as futures commission merchants and are subject to the Commodity Futures Trading Commission Regulation 1.17.

MLPF&S has elected to compute the minimum capital requirement in accordance with the Alternative Net Capital Requirement as permitted by SEC Rule 15c3-1. At September 30, 2017, MLPF&S’s regulatory net capital as defined by Rule 15c3-1 was $12.9 billion and exceeded the minimum requirement of $1.7 billion by $11.2 billion. MLPCC’s net capital of $3.4 billion exceeded the minimum requirement of $600 million by $2.8 billion.

In accordance with the Alternative Net Capital Requirements, MLPF&S is required to maintain tentative net capital in excess of $1.0 billion, net capital in excess of $500 million and notify the SEC in the event its tentative net capital is less than $5.0 billion. At September 30, 2017, MLPF&S had tentative net capital and net capital in excess of the minimum and notification requirements.

Merrill Lynch International (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 September 30, 2017, MLI’s capital resources were $35.3 billion which exceeded the minimum Pillar 1 requirement of $15.9 billion.

Common and Preferred Stock Dividends

Table 16 is a summary of our cash dividend declarations on preferred stock during the third quarter of 2017 and through October 30, 2017. During the third quarter of 2017, we recognized $465 million of cash dividends on preferred stock. For more information on preferred stock and a summary of our declared quarterly cash dividends on common stock, see Note 11 – Shareholders' Equity to the Consolidated Financial Statements.

Table 16 Preferred Stock Cash Dividend Summary

Preferred Stock	September 30, 2017 Outstanding Notional Amount (in millions)	Declaration Date	Record Date	Payment Date	Per Annum Dividend Rate	Dividend Per Share
Series B (1)	$ 1	October 25, 2017	January 11, 2018	January 25, 2018	7.00 %	$ 1.75
		July 26, 2017	October 11, 2017	October 25, 2017	7.00	1.75
Series D (2)	$ 654	October 9, 2017	November 30, 2017	December 14, 2017	6.204 %	$ 0.38775
		July 5, 2017	August 31, 2017	September 14, 2017	6.204	0.38775
Series E (2)	$ 317	October 9, 2017	October 31, 2017	November 15, 2017	Floating	$ 0.25556
		July 5, 2017	July 31, 2017	August 15, 2017	Floating	0.25556
Series F	$ 141	October 9, 2017	November 30, 2017	December 15, 2017	Floating	$ 1,011.11111
		July 5, 2017	August 31, 2017	September 15, 2017	Floating	1,022.22222
Series G	$ 493	October 9, 2017	November 30, 2017	December 15, 2017	Adjustable	$ 1,011.11111
		July 5, 2017	August 31, 2017	September 15, 2017	Adjustable	1,022.22222
Series I (2)	$ 365	October 9, 2017	December 15, 2017	January 2, 2018	6.625 %	$ 0.4140625
		July 5, 2017	September 15, 2017	October 2, 2017	6.625	0.4140625
Series K (3, 4)	$ 1,544	July 5, 2017	July 15, 2017	July 31, 2017	Fixed-to-floating	$ 40.00
Series L	$ 3,080	September 18, 2017	October 1, 2017	October 30, 2017	7.25 %	$ 18.125
Series M (3, 4)	$ 1,310	October 9, 2017	October 31, 2017	November 15, 2017	Fixed-to-floating	$ 40.625
Series T (5)	$ 35	July 26, 2017	September 25, 2017	October 10, 2017	6.00 %	$ 1,500.00
		October 25, 2017	December 26, 2017	January 10, 2018	6.00	1,500.00
Series U (3, 4)	$ 1,000	October 9, 2017	November 15, 2017	December 1, 2017	Fixed-to-floating	$ 26.00
	$ 1,500	October 9, 2017	December 1, 2017		Fixed-to-floating	$ 25.625

Series V (3, 4)				December 18, 2017			
Series W (2)	$ 1,100	October 9, 2017	November 15, 2017	December 11, 2017	6.625	%	$0.4140625
		July 5, 2017	August 15, 2017	September 11, 2017	6.625		0.4140625
Series X (3, 4)	$ 2,000	July 5, 2017	August 15, 2017	September 5, 2017	Fixed-to-floating		$31.25
Series Y (2)	$ 1,100	September 18, 2017	October 1, 2017	October 27, 2017	6.50	%	$0.40625
Series Z (3,4)	$ 1,400	September 18, 2017	October 1, 2017	October 23, 2017	FIxed-to-floating		$32.50
Series AA (3, 4)	$ 1,900	July 5, 2017	September 1, 2017	September 18, 2017	Fixed-to-floating		$30.50
Series CC (2)	$ 1,100	September 18, 2017	October 1, 2017	October 30, 2017	6.20	%	$0.3875
Series DD (3,4)	$ 1,000	July 5, 2017	August 15, 2017	September 11, 2017	Fixed-to-floating		$31.50
Series EE (2)	$ 900	September 18, 2017	October 1, 2017	October 25, 2017	6.00	%	$0.375
Series 1 (6)	$ 98	October 9, 2017	November 15, 2017	November 28, 2017	Floating		$0.18750
		July 5, 2017	August 15, 2017	August 29, 2017	Floating		0.18750
Series 2 (6)	$ 299	October 9, 2017	November 15, 2017	November 28, 2017	Floating		$0.19167
		July 5, 2017	August 15, 2017	August 29, 2017	Floating		0.19167
Series 3 (6)	$ 653	October 9, 2017	November 15, 2017	November 28, 2017	6.375	%	$0.3984375
		July 5, 2017	August 15, 2017	August 28, 2017	6.375		0.3984375
Series 4 (6)	$ 210	October 9, 2017	November 15, 2017	November 28, 2017	Floating		$0.25556
		July 5, 2017	August 15, 2017	August 29, 2017	Floating		0.25556
Series 5 (6)	$ 422	October 9, 2017	November 1, 2017	November 21, 2017	Floating		$0.25556
		July 5, 2017	August 1, 2017	August 21, 2017	Floating		0.25556

(1) Dividends are cumulative.

(2) Dividends per depositary share, each representing a 1/1,000th interest in a share of preferred stock.

(3) Initially pays dividends semi-annually.

(4) Dividends per depositary share, each representing a 1/25th interest in a share of preferred stock.

(5) The Series T outstanding notional amount represents Series T shares that were not surrendered in the exercise of the warrants. For additional information, see Recent Events on page 3.

(6) Dividends per depositary share, each representing a 1/1,200th interest in a share of preferred stock.

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, see Liquidity Risk – Time-to-required Funding and Liquidity Stress Analysis in the MD&A of the Corporation's 2016 Annual Report on Form 10-K.

NB Holdings Corporation

In 2016, we entered into intercompany arrangements with certain key subsidiaries under which we transferred certain of our parent company assets, 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.

In consideration for the transfer of assets, NB Holdings issued a subordinated note to the parent company in a principal amount equal to the value of the transferred assets. The aggregate principal amount of the note will increase by the amount of any future asset transfers. NB Holdings also provided the parent company with a committed line of credit that allows the parent company to draw funds necessary to service near-term cash needs. 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. These arrangements include provisions to terminate the line of credit, forgive the subordinated note and require the parent company to transfer its remaining financial assets to NB Holdings if our projected liquidity resources deteriorate so severely that resolution of the parent company becomes imminent.

Global Liquidity Sources and Other Unencumbered Assets

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. Our liquidity buffer, referred to as Global Liquidity Sources (GLS), is comprised of assets that are readily available to the parent company and selected subsidiaries, including holding company, bank and broker-

dealer subsidiaries, even during stressed market conditions. Our cash is primarily on deposit with the Federal Reserve and, to a lesser extent, central banks outside of the U.S. We limit the composition of high-quality, liquid, unencumbered securities to U.S. government securities, U.S. agency securities, U.S. agency MBS and a select group of non-U.S. government securities. We can quickly obtain cash for these securities, even in stressed conditions, through repurchase agreements or outright sales. We hold our GLS in legal entities that allow us to meet the liquidity requirements of our global businesses, and we consider the impact of potential regulatory, tax, legal and other restrictions that could limit the transferability of funds among entities.

For the three months ended September 30, 2017 and December 31, 2016, our average GLS were $517 billion and $515 billion, and were as shown in Table 17.

Table 17 Average Global Liquidity Sources

Three Months Ended

(Dollars in billions)	September 30 2017	December 31 2016
Parent company and NB Holdings	$ 85	$ 77
Bank subsidiaries	381	389
Other regulated entities	51	49
Total Average Global Liquidity Sources	$ 517	$ 515

Parent company and NB Holdings average liquidity was $85 billion and $77 billion for the three months ended September 30, 2017 and December 31, 2016. The increase in parent company and NB Holdings liquidity was primarily due to debt issuances outpacing maturities. Typically, parent company and NB Holdings liquidity is in the form of cash deposited with BANA.

Average liquidity held at our bank subsidiaries was $381 billion and $389 billion for the three months ended September 30, 2017 and December 31, 2016. 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 Federal Home Loan Banks (FHLBs) and the Federal Reserve Discount Window. The cash we could have obtained by borrowing against this pool of specifically-identified eligible assets was $304 billion and $310 billion at September 30, 2017 and December 31, 2016, with the decrease due to FHLB borrowings, which reduced available borrowing capacity, and adjustments to our valuation model. 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.

Average liquidity held at our other regulated entities, comprised primarily of broker-dealer subsidiaries, was $51 billion and $49 billion for the three months ended September 30, 2017 and December 31, 2016. Our other regulated entities also held unencumbered investment-grade securities and equities that we believe could be used to generate additional liquidity. Liquidity held in an other regulated entity 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.
Table 18 presents the composition of average GLS at September 30, 2017 and December 31, 2016.

Table 18 Average Global Liquidity Sources Composition

(Dollars in billions)	Three Months Ended	
	September 30 2017	December 31 2016
Cash on deposit	$ 117	$ 118
U.S. Treasury securities	62	58
U.S. agency securities and mortgage-backed securities	324	322
Non-U.S. government securities	14	17
Total Average Global Liquidity Sources	$ 517	$ 515

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. For the three months ended September 30, 2017, our average consolidated HQLA, on a net basis, was $439 billion and the consolidated Corporation's average LCR was 126 percent. Our LCR will fluctuate due to normal business flows from customer activity.

Time-to-required Funding and Liquidity Stress Analysis

We use a variety of metrics to determine the appropriate amounts of liquidity to maintain at the parent company and our subsidiaries. One metric we use to evaluate the appropriate level of liquidity at the parent company and NB Holdings is “time-to-required funding (TTF).” This debt coverage measure indicates the number of months the parent company can continue to meet its unsecured contractual obligations as they come due using only the parent company and NB Holdings' liquidity sources without issuing any new debt or accessing any additional liquidity sources. We define unsecured contractual obligations for purposes of this metric as maturities of senior or subordinated debt issued or guaranteed by Bank of America Corporation. These include certain unsecured debt instruments, primarily structured liabilities, which we may be required to settle for cash prior to maturity. TTF was 52 months at September 30, 2017 compared to 35 months at December 31, 2016. The increase in TTF was driven by debt issuances outpacing maturities.

We also utilize liquidity stress analysis to assist us in determining the appropriate amounts of liquidity to maintain at the parent company and our subsidiaries. The liquidity stress testing process is an integral part of analyzing our potential contractual and contingent cash outflows. We evaluate the liquidity requirements under a range of scenarios with varying levels of severity and time horizons. The scenarios we consider and utilize incorporate market-wide and Corporation-specific events, including potential credit rating downgrades for the parent company and our subsidiaries, and more severe events including potential resolution scenarios. The scenarios are based on our historical experience, experience of distressed and failed financial

institutions, regulatory guidance, and both expected and unexpected future events.

The types of potential contractual and contingent cash outflows we consider in our scenarios may include, but are not limited to, upcoming contractual maturities of unsecured debt and reductions in new debt issuance; diminished access to secured financing markets; potential deposit withdrawals; increased draws on loan commitments, liquidity facilities and letters of credit; additional collateral that counterparties could call if our credit ratings were downgraded; collateral and margin requirements arising from market value changes; and potential liquidity required to maintain businesses and finance customer activities. Changes in certain market factors, including, but not limited to, credit rating downgrades, could negatively impact potential contractual and contingent outflows and the related financial instruments, and in some cases these impacts could be material to our financial results.

We consider all sources of funds that we could access during each stress scenario and focus particularly on matching available sources with corresponding liquidity requirements by legal entity. We also use the stress modeling results to manage our asset and liability profile and establish limits and guidelines on certain funding sources and businesses.

Net Stable Funding Ratio

U.S. banking regulators have issued a proposal for a Net Stable Funding Ratio (NSFR) requirement applicable to U.S. financial institutions following the Basel Committee's final standard. The U.S. NSFR would apply to the Corporation on a consolidated basis and to our insured depository institutions beginning on January 1, 2018, if finalized as proposed. We expect to meet the NSFR requirement within the regulatory timeline. The standard is intended to reduce funding risk over a longer time horizon. The NSFR is designed to ensure an appropriate amount of stable funding, generally capital and liabilities maturing beyond one year, given the mix of assets and off-balance sheet items.

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. The primary benefits of our centralized funding approach include greater control, reduced funding costs, wider name recognition by investors and greater flexibility to meet the variable funding requirements of subsidiaries. Where regulations, time zone differences or other business considerations make parent company funding impractical, certain other subsidiaries may issue their own debt.

We fund a substantial portion of our lending activities through our deposits, which were $1.28 trillion and $1.26 trillion at September 30, 2017 and December 31, 2016. Deposits are primarily generated by our Consumer Banking, GWIM and Global Banking segments. These deposits are diversified by clients, product type and geography, and the majority of our U.S. deposits are insured by the FDIC. We consider a substantial portion of our deposits to be a stable, low-cost and consistent source of funding. We believe this deposit funding is generally less sensitive to interest rate changes, market volatility or changes in our credit ratings than wholesale funding sources. Our lending activities may also be financed through secured borrowings, including credit card securitizations and securitizations with government-sponsored

enterprises, the Federal Housing Administration (FHA) and private-label investors, as well as FHLB loans.
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. We believe funding these activities in the secured financing markets is more cost-efficient and less sensitive to changes in our credit ratings than unsecured financing. Repurchase agreements are generally short-term and often overnight. Disruptions in secured financing markets for financial institutions have occurred in prior market cycles which resulted in adverse changes in terms or significant reductions in the availability of such financing. We manage the liquidity risks arising from secured funding by sourcing funding globally from a diverse group of counterparties, providing a range of securities collateral and pursuing longer durations, when appropriate. For more information on secured financing agreements, see Note 9 – Federal Funds Sold or Purchased, Securities Financing Agreements and Short-term Borrowings to the Consolidated Financial Statements.

We issue long-term unsecured debt in a variety of maturities and currencies to achieve cost-efficient funding and to maintain an appropriate maturity profile. While the cost and availability of unsecured funding may be negatively impacted by general market conditions or by matters specific to the financial services industry or the Corporation, we seek to mitigate refinancing risk by actively managing the amount of our borrowings that we anticipate will mature within any month or quarter.
During the three and nine months ended September 30, 2017, we issued $17.1 billion and $50.5 billion of long-term debt consisting of $14.0 billion and $37.5 billion for Bank of America Corporation, substantially all of which was TLAC compliant, $2.1 billion and $7.2 billion for Bank of America, N.A. and $974 million and $5.8 billion of other debt.
Table 19 presents the carrying value of aggregate annual contractual maturities of long-term debt as of September 30, 2017. During the nine months ended September 30, 2017, we had total long-term debt maturities and purchases of $44.1 billion consisting of $24.7 billion for Bank of America Corporation, $13.3 billion for Bank of America, N.A. and $6.1 billion of other debt.

Table 19 Long-term Debt by Maturity

(Dollars in millions)	Remainder of 2017	2018	2019	2020	2021	Thereafter	Total
Bank of America Corporation							
Senior notes	$ 3,576	$19,634	$18,257	$12,389	$17,975	$72,582	$144,413
Senior structured notes	518	2,909	1,470	1,001	426	9,368	15,692
Subordinated notes	—	2,922	1,537	—	372	21,311	26,142
Junior subordinated notes	—	—	—	—	—	3,835	3,835
Total Bank of America Corporation	4,094	25,465	21,264	13,390	18,773	107,096	190,082
Bank of America, N.A.							
Senior notes	—	5,784	—	—	—	21	5,805
Subordinated notes	—	—	1	—	—	1,691	1,692
Advances from Federal Home Loan Banks	5	2,009	2,013	11	2	113	4,153
Securitizations and other Bank VIEs (1)	—	2,300	3,201	3,097	—	42	8,640
Other	25	82	201	19	—	194	521
Total Bank of America, N.A.	30	10,175	5,416	3,127	2	2,061	20,811
Other debt							
Structured liabilities	129	4,667	2,001	1,378	790	7,960	16,925
Nonbank VIEs (1)	12	22	50	—	—	733	817
Other	—	—	—	—	—	31	31
Total other debt	141	4,689	2,051	1,378	790	8,724	17,773

Total long-term debt	$ 4,265	$40,329	$28,731	$17,895	$19,565	$117,881	$228,666

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

Table 20 presents our long-term debt by major currency at September 30, 2017 and December 31, 2016.

Table 20 Long-term Debt by Major Currency

(Dollars in millions)	September 30 2017	December 31 2016
U.S. dollar	$177,505	$ 172,082
Euro	34,813	28,236
British pound	6,951	6,588
Australian dollar	3,050	2,900
Japanese yen	2,938	3,919
Canadian dollar	1,958	1,049
Other	1,451	2,049
Total long-term debt	$228,666	$ 216,823

Total long-term debt increased $11.8 billion, or five percent, in the nine months ended September 30, 2017, primarily due to issuances outpacing maturities. We may, from time to time, purchase outstanding debt instruments in various transactions, depending on prevailing market conditions, liquidity and other factors. In addition, our other regulated entities may make markets in our debt instruments to provide liquidity for investors. For information on funding and liquidity risk management, see Liquidity Risk – Time-to-required Funding and Liquidity Stress Analysis in the MD&A of the Corporation's 2016 Annual Report on Form 10-K and for information regarding long-term debt funding, see Note 11 – Long-term Debt to the Consolidated Financial Statements of the Corporation's 2016 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 63.

We may also issue unsecured debt in the form of structured notes for client purposes, certain of which qualify as TLAC eligible debt. During the three and nine months ended September 30, 2017, we issued $1.6 billion and $3.9 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.

Contingency Planning

We maintain contingency funding plans that outline our potential responses to liquidity stress events at various levels of severity. These policies and plans are based on stress scenarios and include potential funding strategies and communication and notification procedures that we would implement in the event we experienced stressed liquidity conditions. We periodically review and test the contingency funding plans to validate efficacy and assess readiness.

Our U.S. bank subsidiaries can access contingency funding through the Federal Reserve Discount Window. Certain non-U.S. subsidiaries have access to central bank facilities in the jurisdictions in which they operate. While we do not rely on these sources in our liquidity modeling, we maintain the policies, procedures and governance processes that would enable us to access these sources if necessary.

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. Table 21 presents the Corporation's current long-term/short-term senior debt ratings and outlooks expressed by the rating agencies.

On September 28, 2017, Fitch Ratings (Fitch) completed its latest review of 12 large, complex securities trading and universal banks, including Bank of America. The agency affirmed the long-term and short-term senior debt ratings of the Corporation and its rated subsidiaries, including BANA, and maintained its stable outlook on those ratings.

On September 12, 2017, Moody’s Investor Service (Moody’s) placed the long-term ratings of the Corporation and its rated subsidiaries, including BANA, on review for upgrade, citing our improved profitability and commitment to a conservative risk profile as drivers of the review. A rating review indicates that those ratings are under consideration for a change in the near term, which typically concludes within 90 days. Moody’s concurrently affirmed the short-term ratings of the Corporation and its rated subsidiaries.

The ratings from Standard & Poor's Global Ratings (S&P) have not changed from those disclosed in the Corporation's 2016 Annual Report on Form 10-K.

For more information on credit ratings, see Liquidity Risk – Credit Ratings in the MD&A of the Corporation's 2016 Annual Report on Form 10-K. For more information on the additional collateral and termination payments that could be required in connection with certain over-the-counter (OTC) derivative contracts and other trading agreements as a result of such a credit rating downgrade, see Note 2 – Derivatives to the Consolidated Financial Statements herein and Item 1A. Risk Factors of the Corporation's 2016 Annual Report on Form 10-K.

Table 21 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
Baa1	P-2		BBB+	A-2	Stable	A	F1	Stable

Bank of America Corporation			Review for upgrade						
Bank of America, N.A.	A1	P-1	Review for upgrade	A+	A-1	Stable	A+	F1	Stable
Merrill Lynch, Pierce, Fenner & Smith Incorporated	NR	NR	NR	A+	A-1	Stable	A+	F1	Stable
Merrill Lynch International	NR	NR	NR	A+	A-1	Stable	A	F1	Stable

NR = not rated

Credit Risk Management

For more information on our credit risk management activities, see Consumer Portfolio Credit Risk Management below, Commercial Portfolio Credit Risk Management on page 48, Non-U.S. Portfolio on page 56, Provision for Credit Losses on page 57, Allowance for Credit Losses on page 57, and Note 4 – Outstanding Loans and Leases and Note 5 – Allowance for Credit Losses to the Consolidated Financial Statements.

During the third quarter of 2017, hurricanes impacted the southern United States and the Caribbean, bringing widespread

flooding and wind damage to communities across the region. In the weeks after these storms, we have been supporting our customers and clients in these communities by providing mobile financial centers and ATMs to supplement local financial centers in affected areas. In addition, we are providing support for the recovery efforts including proactive fee refunds in affected areas, as well as home loan and other credit assistance, including payment deferrals, for impacted individuals and businesses. While we are continuing our assessment, we do not believe that these storms will have a material financial impact on the Corporation.

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 the U.S. unemployment rate and home prices continued in the three and nine months ended September 30, 2017 resulting in improved credit quality and lower credit losses in the consumer real estate portfolio, partially offset by seasoning and loan growth in the credit card portfolio compared to the same periods in 2016.

Improved credit quality, the sale of the non-U.S. consumer credit card business in the second quarter of 2017, continued loan balance run-off and sales in the consumer real estate portfolio drove a $640 million decrease in the consumer allowance for loan and lease losses during the nine months ended September 30, 2017 to $5.6 billion at September 30, 2017. For additional information, see Allowance for Credit Losses on page 57.
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 to the Consolidated Financial Statements of the Corporation's 2016 Annual Report on Form 10-K.
Table 22 presents our outstanding consumer loans and leases, and the PCI loan portfolio. In addition to being included in the "Outstandings" columns in Table 22, PCI loans are also shown separately in the "Purchased Credit-impaired Loan Portfolio" columns. The impact of the PCI loan portfolio on certain credit statistics is reported where appropriate. For more information on PCI loans, see Consumer Portfolio Credit Risk Management – Purchased Credit-impaired Loan Portfolio on page 45 and Note 4 – Outstanding Loans and Leases to the Consolidated Financial Statements.

Table 22 Consumer Loans and Leases

(Dollars in millions)	Outstandings		Purchased Credit-impaired Loan Portfolio	
	September 30 2017	December 31 2016	September 30 2017	December 31 2016
Residential mortgage	$199,446	$ 191,797	$8,399	$ 10,127
Home equity	59,752	66,443	2,913	3,611
U.S. credit card	92,602	92,278	n/a	n/a
Non-U.S. credit card	—	9,214	n/a	n/a
Direct/Indirect consumer [1]	93,391	94,089	n/a	n/a
Other consumer [2]	2,424	2,499	n/a	n/a
Consumer loans excluding loans accounted for under the fair value option	447,615	456,320	11,312	13,738
Loans accounted for under the fair value option [3]	978	1,051	n/a	n/a
Total consumer loans and leases [4]	$448,593	$ 457,371	$11,312	$ 13,738

[1] Outstandings include auto and specialty lending loans of $50.0 billion and $48.9 billion, unsecured consumer lending loans of $484 million and $585 million, U.S. securities-based lending loans of $39.3 billion and $40.1 billion, non-U.S. consumer loans of $2.9 billion and $3.0 billion, student loans of $0 and $497 million and other

consumer loans of $682 million and $1.1 billion at September 30, 2017 and December 31, 2016.

(2) Outstandings include consumer leases of $2.3 billion and $1.9 billion, consumer overdrafts of $160 million and $157 million and consumer finance loans of $0 and $465 million at September 30, 2017 and December 31, 2016.

(3) Consumer loans accounted for under the fair value option include residential mortgage loans of $615 million and $710 million and home equity loans of $363 million and $341 million at September 30, 2017 and December 31, 2016. For more information on the fair value option, see Note 15 – Fair Value Option to the Consolidated Financial Statements.

(4) Includes $9.2 billion of non-U.S. credit card loans, which were included in assets of business held for sale on the Consolidated Balance Sheet at December 31, 2016. During the second quarter of 2017, the Corporation sold its non-U.S. consumer credit card business.

n/a = not applicable

Table 23 presents 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 (loans discharged in Chapter 7 bankruptcy 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 (FNMA) and Freddie Mac (FHLMC) (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). Additionally, nonperforming loans and accruing balances past due 90 days or more do not include the PCI loan portfolio or loans accounted for under the fair value option even though the customer may be contractually past due.

Table 23 Consumer Credit Quality

(Dollars in millions)	Nonperforming		Accruing Past Due 90 Days or More	
	September 30 2017	December 31 2016	September 30 2017	December 31 2016
Residential mortgage [1]	$2,518	$ 3,056	$3,372	$ 4,793
Home equity	2,691	2,918	—	—
U.S. credit card	n/a	n/a	810	782
Non-U.S. credit card	n/a	n/a	—	66
Direct/Indirect consumer	43	28	31	34
Other consumer	—	2	1	4
Total [2]	$5,252	$ 6,004	$4,214	$ 5,679
Consumer loans and leases as a percentage of outstanding consumer loans and leases [2]	1.17 %	1.32 %	0.94 %	1.24 %
Consumer loans and leases as a percentage of outstanding loans and leases, excluding PCI and fully-insured loan portfolios [2]	1.28	1.45	0.20	0.21

(1) Residential mortgage loans accruing past due 90 days or more are fully-insured loans. At September 30, 2017 and December 31, 2016, residential mortgage included $2.3 billion and $3.0 billion of loans on which interest has been curtailed by the FHA, and therefore are no longer accruing interest, although principal is still insured, and $1.1 billion and $1.8 billion of loans on which interest was still accruing.

(2) Balances exclude consumer loans accounted for under the fair value option. At September 30, 2017 and December 31, 2016, $27 million and $48 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 24 presents net charge-offs and related ratios for consumer loans and leases.

Table 24 Consumer Net Charge-offs and Related Ratios

(Dollars in millions)	Net Charge-offs [1]				Net Charge-off Ratios [1, 2]			
	Three Months Ended September 30		Nine Months Ended September 30		Three Months Ended September 30		Nine Months Ended September 30	
	2017	2016	2017	2016	2017	2016	2017	2016
Residential mortgage	$(82)	$4	$(84)	$129	(0.16)%	0.01%	(0.06)%	0.09%
Home equity	83	97	197	335	0.54	0.55	0.42	0.61
U.S. credit	612	543	1,858	1,703	2.65	2.45	2.75	2.60

card								
Non-U.S. credit card	—	43	75	134	—	1.83	1.91	1.84
Direct/Indirect consumer	67	34	147	91	0.28	0.14	0.21	0.13
Other consumer	51	57	116	152	7.23	9.74	5.83	9.09
Total	$731	$778	$2,309	$2,544	0.65	0.69	0.69	0.76

(1) Net charge-offs exclude write-offs in the PCI loan portfolio. For more information on PCI write-offs, see Consumer Portfolio Credit Risk Management – Purchased Credit-impaired Loan Portfolio on page 45.

(2) 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.

Net charge-offs, as shown in Tables 24 and 25, exclude write-offs in the PCI loan portfolio of $62 million and $112 million in residential mortgage for the three and nine months ended September 30, 2017 compared to $33 million and $109 million for the same periods in 2016. Net charge-offs, as shown in Tables 24 and 25, exclude write-offs in the PCI loan portfolio of $11 million and $49 million in home equity for the three and nine months ended September 30, 2017 compared to $50 million and $161 million for the same periods in 2016. Net charge-off (recovery) ratios including the PCI write-offs were (0.04) percent and 0.02 percent for residential mortgage for the three and nine months ended September 30, 2017 compared to 0.08 percent and 0.17 percent for the same periods in 2016. Net charge-off ratios including the PCI write-offs were 0.61 percent and 0.52 percent for home equity for the three and nine months ended September 30, 2017 compared to 0.83 percent and 0.91 percent for the same periods in 2016. For more information on PCI write-offs, see Consumer Portfolio Credit Risk Management – Purchased Credit-impaired Loan Portfolio on page 45.

Table 25 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, LTV, 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. Loans held in legacy private-label securitizations, government-insured loans originated prior to 2010, loan products no longer originated, and loans originated prior to 2010 and classified as nonperforming or modified in a TDR prior to 2016 are generally characterized as non-core loans, and are principally run-off portfolios. Core loans as reported in Table 25 include loans held in the Consumer Banking and GWIM segments, as well as loans held for ALM activities in All Other. For more information on core and non-core loans, see Note 4 – Outstanding Loans and Leases to the Consolidated Financial Statements.

As shown in Table 25, outstanding core consumer real estate loans increased $10.2 billion during the nine months ended September 30, 2017 driven by an increase of $14.2 billion in residential mortgage, partially offset by a $4.0 billion decrease in home equity.

Table 25 Consumer Real Estate Portfolio [1]

	Outstandings		Nonperforming		Net Charge-offs [2]			
					Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	September 30 2017	December 31 2016	September 30 2017	December 31 2016	2017	2016	2017	2016
Core portfolio								
Residential mortgage	$170,657	$ 156,497	$1,076	$ 1,274	$(42)	$(12)	$(40)	$(23)
Home equity	45,377	49,373	1,046	969	26	35	85	81
Total core portfolio	216,034	205,870	2,122	2,243	(16)	23	45	58
Non-core portfolio								
Residential mortgage	28,789	35,300	1,442	1,782	(40)	16	(44)	152
Home equity	14,375	17,070	1,645	1,949	57	62	112	254
Total non-core portfolio	43,164	52,370	3,087	3,731	17	78	68	406
Consumer real estate portfolio								
Residential mortgage	199,446	191,797	2,518	3,056	(82)	4	(84)	129
Home equity	59,752	66,443	2,691	2,918	83	97	197	335
Total consumer real estate portfolio	$259,198	$ 258,240	$5,209	$ 5,974	$1	$101	$113	$464

Allowance for Loan and Lease Losses		Provision for Loan and Lease Losses			
		Three Months Ended September 30		Nine Months Ended September 30	
September 30 2017	December 31 2016	2017	2016	2017	2016

Core portfolio						
Residential mortgage	$231	$ 252	$(49)	$(33)	$(60)	$(86)
Home equity	456	560	(10)	2	(19)	10
Total core portfolio	687	812	(59)	(31)	(79)	(76)
Non-core portfolio						
Residential mortgage	582	760	(59)	(34)	(111)	(88)
Home equity	763	1,178	(86)	29	(255)	(27)
Total non-core portfolio	1,345	1,938	(145)	(5)	(366)	(115)
Consumer real estate portfolio						
Residential mortgage	813	1,012	(108)	(67)	(171)	(174)
Home equity	1,219	1,738	(96)	31	(274)	(17)
Total consumer real estate portfolio	$2,032	$ 2,750	$(204)	$(36)	$(445)	$(191)

(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 $615 million and $710 million and home equity loans of $363 million and $341 million at September 30, 2017 and December 31, 2016. For more information on the fair value option, see Note 15 – Fair Value Option to the Consolidated Financial Statements.

(2) Net charge-offs exclude write-offs in the PCI loan portfolio. For more information on PCI write-offs, see Consumer Portfolio Credit Risk Management – Purchased Credit-impaired Loan Portfolio on page 45.

We believe that the presentation of information adjusted to exclude the impact of the PCI loan portfolio, 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 discussions of the residential mortgage and home equity portfolios, we provide information that excludes the impact of the PCI loan portfolio, the fully-insured loan portfolio and loans accounted for under the fair value option in certain credit quality statistics. We separately disclose information on the PCI loan portfolio on page 45.

Residential Mortgage

The residential mortgage portfolio makes up the largest percentage of our consumer loan portfolio at 45 percent of consumer loans and leases at September 30, 2017. Approximately 35 percent of the residential mortgage portfolio is in Consumer Banking and approximately 35 percent is in GWIM. The remaining portion is in All Other and is 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, excluding loans accounted for under the fair value option, increased $7.6 billion during the nine months ended September 30, 2017 as retention of new originations was partially

offset by loan sales of $3.2 billion, and run-off.
At September 30, 2017 and December 31, 2016, the residential mortgage portfolio included $24.8 billion and $28.7 billion of outstanding fully-insured loans. On this portion of the residential mortgage portfolio, we are protected against principal loss as a result of either FHA insurance or long-term standby agreements that provide for the transfer of credit risk to FNMA and FHLMC. At September 30, 2017 and December 31, 2016, $18.3 billion and $22.3 billion had FHA insurance with the remainder protected by long-term standby agreements. At September 30,

2017 and December 31, 2016, $5.5 billion and $7.4 billion of the FHA-insured loan population were repurchases of delinquent FHA loans pursuant to our servicing agreements with GNMA.
Table 26 presents certain residential mortgage key credit statistics on both a reported basis excluding loans accounted for under the fair value option, and excluding the PCI loan portfolio, the fully-insured loan portfolio and loans accounted for under the fair value option. Additionally, in the "Reported Basis" columns in

the table below, accruing balances past due and nonperforming loans do not include the PCI loan portfolio, in accordance with our accounting policies, even though the customer may be contractually past due. As such, the following discussion presents the residential mortgage portfolio excluding the PCI loan portfolio, the fully-insured loan portfolio and loans accounted for under the fair value option. For more information on the PCI loan portfolio, see page 45.

Table 26 Residential Mortgage – Key Credit Statistics

	Reported Basis [1]		Excluding Purchased Credit-impaired and Fully-insured Loans	
(Dollars in millions)	September 30 2017	December 31 2016	September 30 2017	December 31 2016
Outstandings	$ 199,446	$ 191,797	$ 166,262	$ 152,941
Accruing past due 30 days or more	6,613	8,232	1,893	1,835
Accruing past due 90 days or more	3,372	4,793	—	—
Nonperforming loans	2,518	3,056	2,518	3,056
Percent of portfolio				
Refreshed LTV greater than 90 but less than or equal to 100	3 %	5 %	3 %	3 %
Refreshed LTV greater than 100	3	4	2	3
Refreshed FICO below 620	7	9	3	4
2006 and 2007 vintages [2]	10	13	9	12

	Reported Basis				Excluding Purchased Credit-impaired and Fully-Insured Loans			
	Three Months Ended September 30		Nine Months Ended September 30		Three Months Ended September 30		Nine Months Ended September 30	
	2017	2016	2017	2016	2017	2016	2017	2016
Net charge-off ratio [3]	(0.16)%	0.01 %	(0.06)%	0.09 %	(0.20)%	0.01 %	(0.07)%	0.12 %

(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 account for $825 million, or 33 percent, and $931 million, or 31 percent of nonperforming residential mortgage loans at September 30, 2017 and December 31, 2016.

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

Nonperforming residential mortgage loans decreased $538 million during the nine months ended September 30, 2017 as outflows, including sales of $386 million, outpaced new inflows which included the addition of $140 million of nonperforming loans as a result of clarifying regulatory guidance related to bankruptcy loans. Of the nonperforming residential mortgage loans at September 30, 2017, $880 million, or 35 percent, were current on contractual payments. Loans accruing past due 30 days or more increased $58 million due in part to the timing impact of a consumer real estate servicer conversion that occurred during the third quarter of 2017.

Net charge-offs decreased $86 million to an $82 million net recovery and decreased $213 million to an $84 million net recovery for the three and nine months ended September 30, 2017, compared to the same periods in 2016. These decreases in net charge-offs were primarily driven by net recoveries of $88 million and $102 million related to loan sales during the three and nine months ended September 30, 2017, compared to loan sale-related net recoveries of $7 million and net charge-offs of $35 million for the same periods in 2016. Additionally, net charge-offs declined due to favorable portfolio trends and decreased write-downs on loans greater than 180 days past due driven by improvement in home prices and the U.S. economy.

Loans with a refreshed LTV greater than 100 percent represented two percent and three percent of the residential mortgage loan portfolio at September 30, 2017 and December 31, 2016. Of the loans with a refreshed LTV greater than 100 percent, 99 percent and 98 percent were performing at September 30, 2017 and December 31, 2016. 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. The majority of these loans have a refreshed LTV greater than 100 percent primarily due to home price deterioration since 2006, partially offset by subsequent appreciation.

Of the $166.3 billion in total residential mortgage loans outstanding at September 30, 2017, as shown in Table 27, 34 percent were originated as interest-only loans. The outstanding balance of interest-only residential mortgage loans that have entered the amortization period was $10.5 billion, or 18 percent, at September 30, 2017. 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 September 30, 2017, $300 million, or three percent of outstanding interest-only residential mortgages that had entered the amortization period were accruing past due 30 days or more compared to $1.9 billion, or one percent for the entire residential mortgage portfolio. In addition, at September 30, 2017, $475 million, or five percent of outstanding interest-only residential mortgage loans that had entered the amortization period were nonperforming, of which $255 million were contractually current, compared to $2.5 billion, or two percent for the entire residential mortgage portfolio, of which $880 million were contractually current. 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. More than 80 percent

of these loans that have yet to enter the amortization period will not be required to make a fully-amortizing payment until 2020 or later.
Table 27 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 and 15 percent of outstandings at September 30, 2017 and December 31, 2016. In the New York area, the New York-Northern New Jersey-Long Island MSA made up 13 percent and 12 percent of outstandings at September 30, 2017 and December 31, 2016.

Table 27 Residential Mortgage State Concentrations

	Outstandings [1]		Nonperforming [1]		Net Charge-offs [2]			
	September 30 2017	December 31 2016	September 30 2017	December 31 2016	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)					2017	2016	2017	2016
California	$65,407	$ 58,295	$453	$ 554	$(59)	$(21)	$(84)	$(51)
New York [3]	16,705	14,476	238	290	(1)	(1)	(2)	17
Florida [3]	10,613	10,213	264	322	(9)	2	(11)	19
Texas	7,046	6,607	120	132	1	—	2	8
Massachusetts	5,691	5,344	63	77	(1)	—	(1)	4
Other U.S./Non-U.S.	60,800	58,006	1,380	1,681	(13)	24	12	132
Residential mortgage loans [4]	$166,262	$ 152,941	$2,518	$ 3,056	$(82)	$4	$(84)	$129
Fully-insured loan portfolio	24,785	28,729						
Purchased credit-impaired residential mortgage loan portfolio [5]	8,399	10,127						
Total residential mortgage loan portfolio	$199,446	$ 191,797						

(1) Outstandings and nonperforming loans exclude loans accounted for under the fair value option.

(2) Net charge-offs exclude $62 million and $112 million of write-offs in the residential mortgage PCI loan portfolio for the three and nine months ended September 30, 2017 compared to $33 million and $109 million for the same

periods in 2016. For more information on PCI write-offs, see Consumer Portfolio Credit Risk Management – Purchased Credit-impaired Loan Portfolio on page 45.

(3) In these states, foreclosure requires a court order following a legal proceeding (judicial states).

(4) Amounts exclude the PCI residential mortgage and fully-insured loan portfolios.

(5) At September 30, 2017 and December 31, 2016, 47 percent and 48 percent of PCI residential mortgage loans were in California. There were no other significant single state concentrations.

Home Equity

At September 30, 2017, the home equity portfolio made up 13 percent of the consumer portfolio and is comprised of home equity lines of credit (HELOCs), home equity loans and reverse mortgages.

At September 30, 2017, our HELOC portfolio had an outstanding balance of $52.8 billion, or 88 percent of the total home equity portfolio compared to $58.6 billion, also 88 percent, at December 31, 2016. HELOCs generally have an initial draw period of 10 years and the borrowers typically are only required to pay the interest due on the loans on a monthly basis. After the initial draw period ends, the loans generally convert to 15-year amortizing loans.

At September 30, 2017, our home equity loan portfolio had an outstanding balance of $4.7 billion, or eight percent of the total home equity portfolio compared to $5.9 billion, or nine percent, at December 31, 2016. Home equity loans are almost all fixed-rate loans with amortizing payment terms of 10 to 30 years and of the $4.7 billion at September 30, 2017, 57 percent have 25- to 30-year terms. At September 30, 2017, our reverse mortgage portfolio had an outstanding balance, excluding loans accounted for under the fair value option, of $2.2 billion, or four percent of the total home equity portfolio compared to $1.9 billion, or three percent, at December 31, 2016. We no longer originate reverse mortgages.

At September 30, 2017, approximately 69 percent of the home equity portfolio was in Consumer Banking, 24 percent was in All Other and the remainder of the portfolio was primarily in GWIM. Outstanding balances in the home equity portfolio, excluding loans accounted for under the fair value option, decreased $6.7 billion during the nine months ended September 30, 2017 primarily due to paydowns and charge-offs outpacing new originations and draws on existing lines. Of the total home equity portfolio at September 30, 2017 and December 31, 2016, $19.0 billion and $19.6 billion, or 32 percent and 29 percent, were in first-lien positions (33 percent and 31 percent excluding the PCI home equity portfolio). At September 30, 2017, 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 $9.8 billion, or 17 percent of our total home equity portfolio excluding the PCI loan portfolio.

Unused HELOCs totaled $45.4 billion at September 30, 2017 compared to $47.2 billion at December 31, 2016. The decrease was primarily due to accounts reaching the end of their draw period, which automatically eliminates open line exposure, and customers choosing to close accounts. Both of these more than offset the impact of new production. The HELOC utilization rate was 54 percent at September 30, 2017 compared to 55 percent at December 31, 2016.

Table 28 presents certain home equity portfolio key credit statistics on both a reported basis excluding loans accounted for under the fair value option, and excluding the PCI loan portfolio and loans accounted for under the fair value option. Additionally, in the "Reported Basis" columns in the table below, accruing balances past due 30 days or more and nonperforming loans do

not include the PCI loan portfolio, in accordance with our accounting policies, even though the customer may be contractually past due. As such, the following discussion presents the home equity portfolio excluding the PCI loan portfolio and loans accounted for under the fair value option. For more information on the PCI loan portfolio, see page 45.

Table 28 Home Equity – Key Credit Statistics

	Reported Basis [1]		Excluding Purchased Credit-impaired Loans	
(Dollars in millions)	September 30 2017	December 31 2016	September 30 2017	December 31 2016
Outstandings	$59,752	$ 66,443	$56,839	$ 62,832
Accruing past due 30 days or more [2]	581	566	581	566
Nonperforming loans [2]	2,691	2,918	2,691	2,918
Percent of portfolio				
Refreshed CLTV greater than 90 but less than or equal to 100	4 %	5 %	3 %	4 %
Refreshed CLTV greater than 100	6	8	5	7
Refreshed FICO below 620	7	7	6	6
2006 and 2007 vintages [3]	31	37	28	34

	Reported Basis				Excluding Purchased Credit-impaired			
	Three Months Ended September 30		Nine Months Ended September 30		Three Months Ended September 30		Nine Months Ended September 30	
	2017	2016	2017	2016	2017	2016	2017	2016
Net charge-off ratio [4]	0.54 %	0.55 %	0.42 %	0.61 %	0.56 %	0.58 %	0.44 %	0.65 %

(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 includes $74 million and $81 million and nonperforming loans include $329 million and $340 million of loans where we serviced the underlying first-lien at September 30, 2017 and December

31, 2016.

(3) These vintages of loans have higher refreshed combined loan-to-value (CLTV) ratios and accounted for 52 percent and 50 percent of nonperforming home equity loans at September 30, 2017 and December 31, 2016, and 81 percent and 86 percent of net charge-offs for the three and nine months ended September 30, 2017 and 57 percent and 47 percent for the same periods in 2016.

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

Nonperforming outstanding balances in the home equity portfolio decreased $227 million during the nine months ended September 30, 2017 as outflows, including $66 million of net transfers to held-for-sale and $38 million of sales, outpaced new inflows, which included the addition of $135 million of nonperforming loans as a result of clarifying regulatory guidance related to bankruptcy loans. Of the nonperforming home equity portfolio at September 30, 2017, $1.5 billion, or 55 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. In addition, $713 million, or 26 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 increased $15 million during the nine months ended September 30, 2017.

In some cases, the junior-lien home equity outstanding balance that we hold is performing, but the underlying first-lien is not. For outstanding balances in the home equity portfolio on which we service the first-lien loan, we are able to track whether the first-lien loan is in default. For loans where the first-lien is serviced by a third party, we utilize credit bureau data to estimate the delinquency status of the first-lien. Given that the credit bureau database we use does not include a property address for the mortgages, we are unable to identify with certainty whether a reported delinquent first-lien mortgage pertains to the same property for which we hold a junior-lien loan. For certain loans, we

utilize a third-party vendor to combine credit bureau and public record data to better link a junior-lien loan with the underlying first-lien mortgage. At September 30, 2017, we estimate that $856 million of current and $151 million of 30 to 89 days past due junior-lien loans were behind a delinquent first-lien loan. We service the first-lien loans on $191 million of these combined amounts, with the remaining $816 million serviced by third parties. Of the $1.0 billion of current to 89 days past due junior-lien loans, based on available credit bureau data and our own internal servicing data, we estimate that approximately $336 million had first-lien loans that were 90 days or more past due.

Net charge-offs decreased $14 million to $83 million and decreased $138 million to $197 million for the three and nine months ended September 30, 2017 compared to same periods in 2016. These decreases in net charge-offs were driven by favorable portfolio trends due in part to improvement in home prices and the U.S. economy, partially offset by $32 million of charge-offs as a result of clarifying regulatory guidance related to bankruptcy loans.

Outstanding balances with a refreshed CLTV greater than 100 percent comprised five percent and seven percent of the home equity portfolio at September 30, 2017 and December 31, 2016. Outstanding balances in the home equity portfolio 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, 95 percent of the customers were current on their

home equity loan and 91 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 September 30, 2017.
Of the $56.8 billion in total home equity portfolio outstandings at September 30, 2017, as shown in Table 29, 35 percent require interest-only payments. The outstanding balance of HELOCs that have entered the amortization period was $17.8 billion at September 30, 2017. 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 September 30, 2017, $379 million, or two percent of outstanding HELOCs that had entered the amortization period were accruing past due 30 days or more. In addition, at September 30, 2017, $2.0 billion, or 11 percent of outstanding HELOCs that had entered the amortization period were nonperforming, of which $1.1 billion were contractually current. Loans in our HELOC portfolio generally have an initial draw period of 10 years and 16 percent of these loans will enter the amortization period through 2018 and will be required to make fully-amortizing payments. We communicate to contractually current customers more than a year prior to the end of their draw period to inform them of the potential change to the payment structure before entering the amortization period, and provide payment options to customers prior to the end of the draw period.

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 (i.e., customers may draw on and repay their line of credit, but are generally only required to pay interest on a monthly basis). During the three months ended September 30, 2017, approximately 35 percent of these customers with an outstanding balance did not pay any principal on their HELOCs.
Table 29 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 September 30, 2017 and December 31, 2016. For the three and nine months ended September 30, 2017, loans within this MSA contributed 29 percent and 26 percent of net charge-offs within the home equity portfolio compared to 15 percent and 16 percent of net charge-offs for the same periods in 2016. The Los Angeles-Long Beach-Santa Ana MSA within California made up 11 percent of the outstanding home equity portfolio at both September 30, 2017 and December 31, 2016. For the three and nine months ended September 30, 2017, loans within this MSA contributed net recoveries of $7 million and $16 million within the home equity portfolio compared to net charge-offs of $0 and $2 million for the same periods in 2016.

Table 29 Home Equity State Concentrations

	Outstandings [1]		Nonperforming [1]		Net Charge-offs [2]			
					Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	September 30 2017	December 31 2016	September 30 2017	December 31 2016	2017	2016	2017	2016
California	$15,699	$ 17,563	$782	$ 829	$(9)	$ 3	$(24)	$12
Florida [3]	6,508	7,319	405	442	13	18	34	59
New Jersey [3]	4,683	5,102	195	201	16	12	37	37
New York [3]	4,330	4,720	254	271	14	11	31	37
Massachusetts	2,846	3,078	94	100	5	2	7	10
Other U.S./Non-U.S.	22,773	25,050	961	1,075	44	51	112	180

Home equity loans [4]	$56,839	$ 62,832	$2,691	$ 2,918	$83	$ 97	$197	$335
Purchased credit-impaired home equity portfolio [5]	2,913	3,611						
Total home equity loan portfolio	$59,752	$ 66,443						

(1) Outstandings and nonperforming loans exclude loans accounted for under the fair value option.

(2) Net charge-offs exclude $11 million and $49 million of write-offs in the home equity PCI loan portfolio for the three and nine months ended September 30, 2017 compared to $50 million and $161 million for the same periods in 2016. For more information on PCI write-offs, see Consumer Portfolio Credit Risk Management – Purchased Credit-impaired Loan Portfolio on page 45.

(3) In these states, foreclosure requires a court order following a legal proceeding (judicial states).

(4) Amount excludes the PCI home equity portfolio.

(5) At September 30, 2017 and December 31, 2016, 28 percent and 29 percent of PCI home equity loans were in California. There were no other significant single state concentrations.

Purchased Credit-impaired Loan Portfolio

Loans acquired with evidence of credit quality deterioration since origination and for which it is probable at purchase that we will be unable to collect all contractually required payments are accounted for under the accounting standards for PCI loans. For more information on PCI loans, see Note 1 – Summary of Significant Accounting Principles to the Consolidated Financial Statements of

the Corporation's 2016 Annual Report on Form 10-K and Note 4 – Outstanding Loans and Leases to the Consolidated Financial Statements.

Table 30 presents the unpaid principal balance, carrying value, related valuation allowance and the net carrying value as a percentage of the unpaid principal balance for the PCI loan portfolio.

Table 30 Purchased Credit-impaired Loan Portfolio

(Dollars in millions)	Unpaid Principal Balance	Gross Carrying Value	Related Valuation Allowance	Carrying Value Net of Valuation Allowance	Percent of Unpaid Principal Balance
	September 30, 2017				
Residential mortgage (1)	$ 8,515	$ 8,399	$ 134	$ 8,265	97.06 %
Home equity	2,988	2,913	181	2,732	91.43
Total purchased credit-impaired loan portfolio	$ 11,503	$ 11,312	$ 315	$ 10,997	95.60
	December 31, 2016				
Residential mortgage (1)	$ 10,330	$ 10,127	$ 169	$ 9,958	96.40 %
Home equity	3,689	3,611	250	3,361	91.11
Total purchased credit-impaired loan portfolio	$ 14,019	$ 13,738	$ 419	$ 13,319	95.01

(1) At September 30, 2017 and December 31, 2016, pay option loans had an unpaid principal balance of $1.5 billion and $1.9 billion and a carrying value of $1.5 billion and $1.8 billion. This includes $1.3 billion and $1.6 billion of loans that were credit-impaired upon acquisition and $152 million and $226 million of loans that are 90 days or more past due at September 30, 2017 and December 31, 2016. The total unpaid principal balance of pay option loans with accumulated negative amortization was $177 million and $303 million, including $10 million and $16 million of negative amortization at September 30, 2017 and December 31, 2016.

The total PCI unpaid principal balance decreased $2.5 billion, or 18 percent, during the nine months ended September 30, 2017 primarily driven by payoffs, paydowns and write-offs. During the nine months ended September 30, 2017, we sold PCI loans with a carrying value of $742 million compared to sales of $435 million for the same period in 2016.

Of the unpaid principal balance of $11.5 billion at September 30, 2017, $10.1 billion, or 88 percent, was current based on the contractual terms, $811 million, or seven percent, was in early stage delinquency, and $394 million was 180 days or more past due, including $331 million of first-lien mortgages and $63 million of home equity loans.

The PCI residential mortgage loan portfolio represented 74 percent of the total PCI loan portfolio at September 30, 2017. Those loans to borrowers with a refreshed FICO score below 620 represented 25 percent of the PCI residential mortgage loan portfolio at September 30, 2017. Loans with a refreshed LTV greater than 90 percent, after consideration of purchase accounting adjustments and the related valuation allowance, represented 16 percent of the PCI residential mortgage loan portfolio and 17 percent based on the unpaid principal balance at September 30, 2017.

The PCI home equity portfolio represented 26 percent of the total PCI loan portfolio at September 30, 2017. Those loans with a refreshed FICO score below 620 represented 16 percent of the PCI home equity portfolio at September 30, 2017. Loans with a

refreshed CLTV greater than 90 percent, after consideration of purchase accounting adjustments and the related valuation allowance, represented 35 percent of the PCI home equity portfolio and 38 percent based on the unpaid principal balance at September 30, 2017.

U.S. Credit Card

At September 30, 2017, 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 remained relatively unchanged at $92.6 billion at September 30, 2017. Net charge-offs increased $69 million to $612 million, and $155 million to $1.9 billion for the three and nine months ended September 30, 2017 compared to the same periods in 2016 due to portfolio seasoning and loan growth. U.S. credit card loans 30 days or more past due and still accruing interest increased $62 million and loans 90 days or more past due and still accruing interest increased $28 million during the nine months ended September 30, 2017, driven by portfolio seasoning and loan growth.

Unused lines of credit for U.S. credit card totaled $332.0 billion and $321.6 billion at September 30, 2017 and December 31, 2016. The increase was driven by a seasonal decrease in line utilization due to a decrease in transaction volume as well as account growth and lines of credit increases.

Table 31 presents certain state concentrations for the U.S. credit card portfolio.

Table 31 U.S. Credit Card State Concentrations

	Outstandings		Accruing Past Due 90 Days or More		Net Charge-offs			
					Three Months Ended September 30		Nine Months Ended September 30	
	September 30 2017	December 31 2016	September 30 2017	December 31 2016				
(Dollars in millions)					2017	2016	2017	2016
California	$14,533	$ 14,251	$ 125	$ 115	$ 104	$ 86	$ 303	$ 269
Florida	8,030	7,864	74	85	58	60	195	184
Texas	7,211	7,037	67	65	46	40	143	122
New York	5,762	5,683	78	60	59	39	155	120
Washington	4,177	4,128	20	18	13	13	41	42
Other U.S.	52,889	53,315	446	439	332	305	1,021	966
Total U.S. credit card portfolio	$92,602	$ 92,278	$ 810	$ 782	$ 612	$ 543	$ 1,858	$ 1,703

Direct/Indirect Consumer

At September 30, 2017, approximately 54 percent of the direct/indirect portfolio was included in Consumer Banking (consumer auto and specialty lending – automotive, marine, aircraft, recreational vehicle loans and consumer personal loans) and 46 percent was included in GWIM (principally securities-based lending loans).

Outstandings in the direct/indirect portfolio decreased $698 million during the nine months ended September 30, 2017

primarily driven by lower draws and utilization in the securities-based lending portfolio.

Net charge-offs increased $33 million to $67 million, and $56 million to $147 million for the three and nine months ended September 30, 2017 compared to the same periods in 2016 due largely to recent clarifying regulatory guidance related to bankruptcy and repossessed loans.

Table 32 presents certain state concentrations for the direct/indirect consumer loan portfolio.

Table 32 Direct/Indirect State Concentrations

	Outstandings		Accruing Past Due 90 Days or More		Net Charge-offs			
					Three Months Ended September 30		Nine Months Ended September 30	
	September 30 2017	December 31 2016	September 30 2017	December 31 2016				
(Dollars in millions)					2017	2016	2017	2016
California	$11,039	$ 11,300	$ 3	$ 3	$7	$ 4	$14	$ 9
Florida	10,469	9,418	4	3	15	7	31	20
Texas	10,410	9,406	3	5	13	6	29	14
New York	6,085	5,253	2	1	2	—	3	1
Illinois	3,436	2,996	1	1	3	1	5	3
Other U.S./Non-U.S.	51,952	55,716	18	21	27	16	65	44
Total direct/indirect loan portfolio	$93,391	$ 94,089	$ 31	$ 34	$67	$ 34	$147	$ 91

Other Consumer

At September 30, 2017, approximately 93 percent of the $2.4 billion other consumer portfolio was consumer auto leases included in Consumer Banking. The remainder is primarily associated with certain consumer finance businesses that we previously exited.

Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity

Table 33 presents nonperforming consumer loans, leases and foreclosed properties activity for the three and nine months ended September 30, 2017 and 2016. For more information on nonperforming loans, see Note 1 – Summary of Significant Accounting Principles to the Consolidated Financial Statements of the Corporation's 2016 Annual Report on Form 10-K and Note 4 – Outstanding Loans and Leases to the Consolidated Financial Statements. During the nine months ended September 30, 2017, nonperforming consumer loans declined $752 million to $5.3 billion driven in part by loan sales of $423 million and net transfers of loans to held-for-sale of $198 million. Additionally, nonperforming loans declined as outflows outpaced new inflows, which included the addition of $295 million of nonperforming loans as a result of clarifying regulatory guidance related to bankruptcy loans.

The outstanding balance of a real estate-secured loan that is in excess of the estimated property value less costs to sell is charged off no later than the end of the month in which the loan becomes 180 days past due unless repayment of the loan is fully insured. At September 30, 2017, $1.9 billion, or 35 percent of nonperforming consumer real estate loans and foreclosed properties had been written down to their estimated property value less costs to sell, including $1.7 billion of nonperforming loans 180 days or more past due and $259 million of foreclosed

properties. In addition, at September 30, 2017, $2.3 billion, or 45 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 $104 million during the nine months ended September 30, 2017 as liquidations outpaced additions. PCI loans are excluded from nonperforming loans as these loans were written down to fair value at the acquisition date; however, once we acquire the underlying real estate upon foreclosure of the delinquent PCI loan, it is included in foreclosed properties. Not included in foreclosed properties at September 30, 2017 was $879 million of real estate that was acquired upon foreclosure of certain delinquent government-guaranteed loans (principally FHA-insured loans). We exclude these amounts 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.

Nonperforming loans also include certain loans that have been modified in TDRs where economic concessions have been granted to borrowers experiencing financial difficulties. These concessions typically result from our loss mitigation activities and could include reductions in the interest rate, payment extensions, forgiveness of principal, forbearance or other actions. Certain TDRs are classified as nonperforming at the time of restructuring and may only be returned to performing status after considering the borrower's sustained repayment performance for a reasonable period, generally six months. Nonperforming TDRs, excluding those modified loans in the PCI loan portfolio, are included in Table 33.

Table 33 Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity [1]

(Dollars in millions)	Three Months Ended September 30		Nine Months Ended September 30	
	2017	2016	2017	2016
Nonperforming loans and leases, beginning of period	$5,282	$6,705	$6,004	$8,165
Additions	999	831	2,499	2,581
Reductions:				
Paydowns and payoffs	(117)	(220)	(517)	(605)
Sales	(162)	(237)	(423)	(1,331)
Returns to performing status [2]	(347)	(383)	(1,101)	(1,220)
Charge-offs	(346)	(279)	(845)	(1,008)
Transfers to foreclosed properties	(57)	(67)	(167)	(232)
Transfers to loans held-for-sale	—	—	(198)	—
Total net reductions to nonperforming loans and leases	(30)	(355)	(752)	(1,815)
Total nonperforming loans and leases, September 30 [3]	5,252	6,350	5,252	6,350
	259	372	259	372

Total foreclosed properties, September 30 [4]				
Nonperforming consumer loans, leases and foreclosed properties, September 30	$5,511	$6,722	$5,511	$6,722
Nonperforming consumer loans and leases as a percentage of outstanding consumer loans and leases [5]	1.17 %	1.41 %		
Nonperforming consumer loans, leases and foreclosed properties as a percentage of outstanding consumer loans, leases and foreclosed properties [5]	1.23	1.49		

(1) Balances do not include nonperforming LHFS of $1 million and $12 million and nonaccruing TDRs removed from the PCI loan portfolio prior to January 1, 2010 of $24 million and $27 million at September 30, 2017 and 2016 as well as loans accruing past due 90 days or more as presented in Table 23 and Note 4 – Outstanding Loans and Leases to the Consolidated Financial Statements.

(2) 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.

(3) At September 30, 2017, 32 percent of nonperforming loans were 180 days or more past due.

(4) Foreclosed property balances do not include properties insured by certain government-guaranteed loans, principally FHA-insured loans, of $879 million and $1.3 billion at September 30, 2017 and 2016.

(5) Outstanding consumer loans and leases exclude loans accounted for under the fair value option.

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 September 30, 2017 and December 31, 2016, $336 million and $428 million of such junior-lien home equity loans were included in nonperforming loans and leases.

Table 34 presents TDRs for the consumer real estate portfolio. Performing TDR balances are excluded from nonperforming loans and leases in Table 33.

Table 34 Consumer Real Estate Troubled Debt Restructurings

	September 30, 2017			December 31, 2016		
(Dollars in millions)	Total	Nonperforming	Performing	Total	Nonperforming	Performing
Residential mortgage [1, 2]	$10,251	$ 1,575	$ 8,676	$12,631	$ 1,992	$ 10,639
Home equity [3]	2,871	1,480	1,391	2,777	1,566	1,211
Total consumer real estate troubled debt restructurings	$13,122	$ 3,055	$ 10,067	$15,408	$ 3,558	$ 11,850

(1) At September 30, 2017 and December 31, 2016, residential mortgage TDRs deemed collateral dependent totaled $2.9 billion and $3.5 billion, and included $1.3 billion and $1.6 billion of loans classified as nonperforming and $1.6 billion and $1.9 billion of loans classified as performing.

(2) Residential mortgage performing TDRs included $4.1 billion and $5.3 billion of loans that were fully-insured at September 30, 2017 and December 31, 2016.

(3) Home equity TDRs deemed collateral dependent totaled $1.6 billion and included $1.3 billion of loans classified as nonperforming for both periods, and $382 million and $301 million of loans classified as performing at September 30, 2017 and December 31, 2016.

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 33 as substantially all of the loans remain on accrual status until either charged off or paid in full. At September 30, 2017 and December 31, 2016, our renegotiated TDR portfolio was $485 million and $610 million, of which $428 million and $493 million were current or less than 30 days past due under the modified terms. The decline in the renegotiated TDR portfolio was primarily

driven by paydowns and charge-offs as well as lower program enrollments. For more information on the renegotiated TDR portfolio, see Note 4 – Outstanding Loans and Leases to the Consolidated Financial Statements.

Commercial Portfolio Credit Risk Management

Commercial credit risk is evaluated and managed with the goal that concentrations of credit exposure do not result in undesirable levels of risk. 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 39, 42 and 47 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, including our utilized exposure to the energy sector, which was three percent of total commercial utilized exposure at both September 30, 2017 and December 31, 2016, see Commercial Portfolio Credit Risk Management – Industry Concentrations on page 53 and Table 42.

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 2016 Annual Report on Form 10-K.

Commercial Credit Portfolio

During the nine months ended September 30, 2017, other than in the higher risk energy sub-sectors, credit quality among large corporate borrowers was strong. We saw further improvement in the energy sector in the nine months ended September 30, 2017.

Credit quality of commercial real estate borrowers continued to be strong with conservative LTV ratios, stable market rents in most sectors and vacancy rates remaining low.

Outstanding commercial loans and leases increased $20.0 billion during the nine months ended September 30, 2017 primarily in U.S. commercial. Nonperforming commercial loans and leases decreased $433 million to $1.4 billion and reservable criticized balances decreased $1.5 billion to $14.8 billion during the nine months ended September 30, 2017 driven by improvements in the energy sector. The allowance for loan and lease losses for the commercial portfolio decreased $147 million to $5.1 billion at September 30, 2017 compared to December 31, 2016. For more information, see Allowance for Credit Losses on page 57.

Table 35 presents our commercial loans and leases portfolio and related credit quality information at September 30, 2017 and December 31, 2016.

Table 35 Commercial Loans and Leases

	Outstandings		Nonperforming		Accruing Past Due 90 Days or More	
(Dollars in millions)	September 30 2017	December 31 2016	September 30 2017	December 31 2016	September 30 2017	December 31 2016
U.S. commercial	$282,677	$ 270,372	$863	$ 1,256	$ 82	$ 106
Commercial real estate [(1)]	59,628	57,355	130	72	—	7
Commercial lease financing	21,413	22,375	26	36	38	19
Non-U.S. commercial	95,896	89,397	244	279	—	5
	459,614	439,499	1,263	1,643	120	137
U.S. small business commercial [(2)]	13,603	12,993	55	60	68	71
Commercial loans excluding loans accounted	473,217	452,492	1,318	1,703	188	208

for under the fair value option						
Loans accounted for under the fair value option [3]	5,307	6,034	36	84	—	—
Total commercial loans and leases	$478,524	$ 458,526	$1,354	$ 1,787	$ 188	$ 208

(1) Includes U.S. commercial real estate of $55.5 billion and $54.3 billion and non-U.S. commercial real estate of $4.2 billion and $3.1 billion at September 30, 2017 and December 31, 2016.

(2) Includes card-related products.

(3) Commercial loans accounted for under the fair value option include U.S. commercial of $2.8 billion and $2.9 billion and non-U.S. commercial of $2.5 billion and $3.1 billion at September 30, 2017 and December 31, 2016. For more information on the fair value option, see Note 15 – Fair Value Option to the Consolidated Financial Statements.

Table 36 presents net charge-offs and related ratios for our commercial loans and leases for the three and nine months ended September 30, 2017 and 2016. The increase in net charge-offs of $59 million and $36 million for the three and nine months ended September 30, 2017 compared to the same periods in 2016 was driven by higher energy losses, partially offset by lower charge-offs in commercial lease financing. Also, the prior-year period included commercial real estate recoveries.

Table 36 Commercial Net Charge-offs and Related Ratios

	Net Charge-offs				Net Charge-off Ratios [1]			
	Three Months Ended September 30		Nine Months Ended September 30		Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016	2017	2016	2017	2016
U.S. commercial	$80	$62	$176	$155	0.11 %	0.10 %	0.09%	0.08 %
Commercial real estate	2	(23)	3	(31)	0.02	(0.16)	0.01	(0.07)
Commercial lease financing	(1)	6	—	19	(0.02)	0.11	—	0.12
Non-U.S. commercial	33	10	94	97	0.14	0.04	0.14	0.14
	114	55	273	240	0.10	0.05	0.08	0.08
U.S. small business	55	55	160	157	1.61	1.67	1.60	1.62

commercial								
Total commercial	$169	$110	$433	$397	0.14	0.10	0.13	0.12

(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 37 presents commercial credit exposure by type for utilized, unfunded and total binding committed credit exposure. Commercial utilized credit exposure includes standby letters of credit (SBLCs) and financial guarantees, bankers' acceptances 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.

Total commercial utilized credit exposure increased $21.5 billion during the nine months ended September 30, 2017 primarily driven by increases in loans and leases. The utilization rate for loans and leases, SBLCs and financial guarantees, commercial letters of credit and bankers acceptances, in the aggregate, was 59 percent and 58 percent at September 30, 2017 and December 31, 2016.

Table 37 Commercial Credit Exposure by Type

	Commercial Utilized [1]		Commercial Unfunded [2, 3, 4]		Total Commercial Committed	
(Dollars in millions)	September 30 2017	December 31 2016	September 30 2017	December 31 2016	September 30 2017	December 31 2016
Loans and leases [5]	$484,565	$ 464,260	$354,927	$ 366,106	$839,492	$ 830,366
Derivative assets [6]	38,384	42,512	—	—	38,384	42,512
Standby letters of credit and financial guarantees	33,967	33,135	723	660	34,690	33,795
Debt securities and other investments	26,190	26,244	5,092	5,474	31,282	31,718
Loans held-for-sale	10,998	6,510	2,246	3,824	13,244	10,334
Commercial letters of credit	1,414	1,464	83	112	1,497	1,576
Bankers' acceptances	389	395	—	13	389	408
Other	514	372	—	—	514	372
Total	$596,421	$ 574,892	$363,071	$ 376,189	$959,492	$ 951,081

(1) Commercial utilized exposure includes loans of $5.3 billion and $6.0 billion and issued letters of credit with a notional amount of $234 million and $284 million accounted for under the fair value option at September 30, 2017 and December 31, 2016.

(2) Commercial unfunded exposure includes commitments accounted for under the fair value option with a notional amount of $4.7 billion and $6.7 billion at September 30, 2017 and December 31, 2016.

(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 (e.g., syndicated or participated) to other financial institutions. The distributed amounts were $11.3 billion and $12.1

billion at September 30, 2017 and December 31, 2016.

(5) Includes credit risk exposure associated with assets under operating lease arrangements of $6.0 billion and $5.7 billion at September 30, 2017 and December 31, 2016.

(6) Derivative assets are carried at fair value, reflect the effects of legally enforceable master netting agreements and have been reduced by cash collateral of $35.6 billion and $43.3 billion at September 30, 2017 and December 31, 2016. Not reflected in utilized and committed exposure is additional non-cash derivative collateral held of $25.6 billion and $25.3 billion at September 30, 2017 and December 31, 2016, which consists primarily of other marketable securities.

Table 38 presents commercial utilized reservable criticized exposure by loan type. Criticized exposure corresponds to the Special Mention, Substandard and Doubtful asset categories as defined by regulatory authorities. Total commercial utilized reservable criticized exposure decreased $1.5 billion, or nine

percent, during the nine months ended September 30, 2017 primarily driven by paydowns and upgrades in the energy portfolio. Approximately 80 percent and 76 percent of commercial utilized reservable criticized exposure was secured at September 30, 2017 and December 31, 2016.

Table 38 Commercial Utilized Reservable Criticized Exposure

	September 30, 2017		December 31, 2016	
(Dollars in millions)	Amount [1]	Percent [2]	Amount [1]	Percent [2]
U.S. commercial	$10,098	3.24 %	$10,311	3.46 %
Commercial real estate	628	1.03	399	0.68
Commercial lease financing	650	3.04	810	3.62
Non-U.S. commercial	2,573	2.54	3,974	4.17
	13,949	2.82	15,494	3.27
U.S. small business commercial	875	6.43	826	6.36
Total commercial utilized reservable criticized exposure	$14,824	2.91	$16,320	3.35

(1) Total commercial utilized reservable criticized exposure includes loans and leases of $13.6 billion and $14.9 billion and commercial letters of credit of $1.3 billion and $1.4 billion at September 30, 2017 and December 31, 2016.

(2) Percentages are calculated as commercial utilized reservable criticized exposure divided by total commercial utilized reservable exposure for each exposure category.

U.S. Commercial

At September 30, 2017, 70 percent of the U.S. commercial loan portfolio, excluding small business, was managed in Global Banking, 17 percent in Global Markets, 11 percent in GWIM (generally business-purpose loans for high net worth clients) and the remainder primarily in Consumer Banking. U.S. commercial loans, excluding loans accounted for under the fair value option, increased $12.3 billion, or five percent, during the nine months ended September 30, 2017 due to growth across most of the

commercial businesses. Reservable criticized balances decreased $213 million, or two percent, and nonperforming loans and leases decreased $393 million, or 31 percent, in the nine months ended September 30, 2017 driven by improvements in the energy sector. Net charge-offs increased $18 million and $21 million for the three and nine months ended September 30, 2017 compared to the same periods in 2016. The increase was driven by higher energy losses.

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. 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 loans and leases portfolio at September 30, 2017 and December 31, 2016. 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. Outstanding loans increased $2.3 billion, or four percent, during the nine months ended September 30, 2017 due to new originations outpacing paydowns.

For the three and nine months ended September 30, 2017, 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 increased $83 million, or 95 percent, driven by a small number of clients across property types. Reservable criticized balances increased $229 million, or 57 percent, during the nine months ended September 30, 2017 primarily due to loan downgrades. Net charge-offs were $2 million and $3 million for the three and nine months ended September 30, 2017 compared to net recoveries of $23 million and $31 million for the same periods in 2016.

Table 39 presents outstanding commercial real estate loans by geographic region, based on the geographic location of the collateral, and by property type.

Table 39 Outstanding Commercial Real Estate Loans

(Dollars in millions)	September 30 2017	December 31 2016
By Geographic Region		
California	$ 14,274	$ 13,450
Northeast	10,173	10,329
Southwest	7,515	7,567
Southeast	5,415	5,630
Midwest	3,901	4,380
Florida	3,253	3,213
Midsouth	3,069	2,346
Northwest	2,706	2,430
Illinois	2,422	2,408
Non-U.S.	4,159	3,103
Other [(1)]	2,741	2,499
Total outstanding commercial real estate loans	$ 59,628	$ 57,355

By Property Type		
Non-residential		
Office	$ 17,891	$ 16,643
Shopping centers / Retail	9,046	8,794
Multi-family rental	8,427	8,817
Hotels / Motels	6,388	5,550
Industrial / Warehouse	5,429	5,357
Multi-use	2,804	2,822
Unsecured	2,243	1,730
Land and land development	236	357
Other	5,785	5,595
Total non-residential	58,249	55,665
Residential	1,379	1,690
Total outstanding commercial real estate loans	$ 59,628	$ 57,355

(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.

At September 30, 2017, total committed non-residential exposure was $80.1 billion compared to $76.9 billion at December 31, 2016, of which $58.2 billion and $55.7 billion were funded loans. Non-residential nonperforming loans and foreclosed properties increased $84 million, or 104 percent, to $165 million at September 30, 2017 compared to December 31, 2016 driven by a small number of clients across property types. The non-residential nonperforming loans and foreclosed properties represented 0.28 percent and 0.14 percent of total non-residential loans and foreclosed properties at September 30, 2017 and December 31, 2016. Non-residential utilized reservable criticized exposure increased $173 million, or 44 percent, to $570 million

at September 30, 2017 compared to $397 million at December 31, 2016, which represented 0.96 percent and 0.70 percent of non-residential utilized reservable exposure. For the non-residential portfolio, net charge-offs increased $26 million to $3 million and increased $34 million to $4 million for the three and nine months ended September 30, 2017 compared to the same periods in 2016.

At September 30, 2017, total committed residential exposure was $3.1 billion compared to $3.7 billion at December 31, 2016, of which $1.4 billion and $1.7 billion were funded secured loans. The nonperforming loans, leases and foreclosed properties and the utilized reservable criticized ratios for the residential portfolio

were 0.33 percent and 4.08 percent at September 30, 2017 compared to 0.35 percent and 0.16 percent at December 31, 2016.

At September 30, 2017 and December 31, 2016, the commercial real estate loan portfolio included $7.1 billion and $6.8 billion of funded construction and land development loans that were originated to fund the construction and/or rehabilitation of commercial properties. Reservable criticized construction and land development loans totaled $213 million and $107 million, and nonperforming construction and land development loans and foreclosed properties totaled $39 million and $44 million at September 30, 2017 and December 31, 2016. During a property's construction phase, interest income is typically paid from interest reserves that are established at the inception of the loan. As construction is completed and the property is put into service, these interest reserves are depleted and interest payments from operating cash flows begin. We do not recognize interest income on nonperforming loans regardless of the existence of an interest reserve.

Non-U.S. Commercial

At September 30, 2017, 80 percent of the non-U.S. commercial loan portfolio was managed in Global Banking and 20 percent in Global Markets. Outstanding loans, excluding loans accounted for under the fair value option, increased $6.5 billion during the nine months ended September 30, 2017. Net charge-offs increased $23 million to $33 million and decreased $3 million to $94 million for the three and nine months ended September 30, 2017 compared to the same periods in 2016. The three-month increase was driven by higher energy losses. For more information on the non-U.S. commercial portfolio, see Non-U.S. Portfolio on page 56.

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 51 percent and 48 percent of the U.S. small business commercial portfolio at September 30, 2017 and December 31, 2016. Net charge-offs remained relatively unchanged at $55 million and $160 million for the three and nine months ended September 30, 2017 compared to the same periods in 2016. Of the U.S. small business commercial net charge-offs, 92 percent and 90 percent were credit card-related products for the three and nine months ended September 30, 2017 compared to 79 percent and 85 percent for the same periods in 2016.

Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity

Table 40 presents the nonperforming commercial loans, leases and foreclosed properties activity during the three and nine months ended September 30, 2017 and 2016. Nonperforming loans do not include loans accounted for under the fair value option. During the three and nine months ended September 30, 2017, nonperforming commercial loans and leases decreased $202 million and $385 million to $1.3 billion. Approximately 81 percent of commercial nonperforming loans, leases and foreclosed properties were secured and approximately 63 percent were contractually current. Commercial nonperforming loans were carried at approximately 84 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 property value less costs to sell.

Table 40 Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity (1, 2)

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016

Nonperforming loans and leases, beginning of period	$1,520	$1,659	$1,703	$1,212
Additions	412	892	1,172	2,089
Reductions:				
Paydowns	(270)	(267)	(803)	(598)
Sales	(61)	(73)	(116)	(166)
Returns to performing status [3]	(100)	(101)	(240)	(177)
Charge-offs	(145)	(102)	(312)	(350)
Transfers to foreclosed properties [4]	—	—	(27)	(2)
Transfers to loans held-for-sale	(38)	(9)	(59)	(9)
Total net additions/(reductions) to nonperforming loans and leases	(202)	340	(385)	787
Total nonperforming loans and leases, September 30	1,318	1,999	1,318	1,999
Total foreclosed properties, September 30 [4]	40	16	40	16
Nonperforming commercial loans, leases and foreclosed properties, September 30	$1,358	$2,015	$1,358	$2,015
Nonperforming commercial loans and	0.28 %	0.45 %		

leases as a percentage of outstanding commercial loans and leases [5]		
Nonperforming commercial loans, leases and foreclosed properties as a percentage of outstanding commercial loans, leases and foreclosed properties [5]	0.29	0.45

(1) Balances do not include nonperforming LHFS of $322 million and $262 million at September 30, 2017 and 2016.

(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) New foreclosed properties represents transfers of nonperforming loans to foreclosed properties net of charge-offs recorded during the first 90 days after transfer of a loan to foreclosed properties.

(5) Outstanding commercial loans exclude loans accounted for under the fair value option.

Table 41 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 4 – Outstanding Loans and Leases to the Consolidated Financial Statements.

Table 41 Commercial Troubled Debt Restructurings

	September 30, 2017			December 31, 2016		
(Dollars in millions)	Nonperforming	Performing	Total	Nonperforming	Performing	Total
U.S. commercial	$377	$ 944	$1,321	$720	$ 1,140	$1,860
Commercial real estate	40	15	55	45	95	140
Commercial lease financing	—	12	12	2	2	4
Non-U.S. commercial	12	220	232	25	283	308
	429	1,191	1,620	792	1,520	2,312
U.S. small business commercial	4	15	19	2	13	15
Total commercial troubled debt restructurings	$433	$ 1,206	$1,639	$794	$ 1,533	$2,327

Industry Concentrations

Table 42 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 $8.4 billion, or one percent, during the nine months ended September 30, 2017 to $959.5 billion. The increase in commercial committed exposure was concentrated in the Food, Beverage and Tobacco, Diversified Financials and Materials sectors. Increases were partially offset by reduced exposure to the Healthcare Equipment and Services, Banking and Telecommunications sectors.

Industry limits are used internally to manage industry concentrations and are based on committed exposure that is allocated on an industry-by-industry basis. A risk management framework is in place to set and approve industry limits as well as to provide ongoing monitoring. The Management Risk Committee oversees industry limit governance.

Diversified Financials, our largest industry concentration, with committed exposure of $128.9 billion, increased $4.3 billion, or three percent, during the nine months ended September 30, 2017. The increase primarily reflected an increase in exposure to several counterparties.

Real estate, our second largest industry concentration, with committed exposure of $85.4 billion, increased $1.7 billion, or two percent, during the nine months ended September 30, 2017. For more information on the commercial real estate and related portfolios, see Commercial Portfolio Credit Risk Management – Commercial Real Estate on page

51.

Retailing, our third largest industry concentration, with committed exposure of $68.7 billion, increased $158 million, or less than one percent, during the nine months ended September 30, 2017. The modest increase in committed exposure occurred as increases in Diversified Wholesalers and Vehicle Dealers were offset by decreases Multiline and Specialty retailers.

Our energy-related committed exposure decreased $2.6 billion, or seven percent, to $36.6 billion during the nine months ended September 30, 2017. Energy sector net charge-offs were $131 million during the nine months ended September 30, 2017 compared to $226 million for the same period in 2016. Energy sector reservable criticized exposure decreased $2.4 billion to $3.2 billion during the nine months ended September 30, 2017 due to improvement in credit quality of some borrowers coupled with exposure reductions and fewer new criticized exposures. The energy allowance for credit losses decreased $265 million to $660 million during the nine months ended September 30, 2017.

Table 42 Commercial Credit Exposure by Industry [1]

	Commercial Utilized		Total Commercial Committed [2]	
(Dollars in millions)	September 30 2017	December 31 2016	September 30 2017	December 31 2016
Diversified financials	$81,120	$ 81,156	$128,879	$ 124,535
Real estate [3]	64,030	61,203	85,351	83,658
Retailing	43,061	41,630	68,665	68,507
Capital goods	35,919	34,278	67,385	64,202
Healthcare equipment and services	38,201	37,656	57,425	64,663
Government and public education	46,537	45,694	56,494	54,626
Materials	24,463	22,578	47,546	44,357
Banking	38,578	39,877	43,637	47,799
Food, beverage and tobacco	23,471	19,669	42,650	37,145
Consumer services	27,446	27,413	42,410	42,523
Energy	16,251	19,686	36,629	39,231
Commercial services and supplies	22,137	21,241	35,448	35,360
Transportation	21,781	19,805	30,124	27,483
Utilities	12,078	11,349	27,281	27,140
Media	13,400	13,419	25,998	27,116
Individuals and trusts	18,860	16,364	24,728	21,764
Pharmaceuticals and biotechnology	7,568	5,539	20,231	18,910
Software and services	9,256	7,991	18,440	19,790
Technology hardware and	7,972	7,793	17,519	18,429

equipment				
Insurance, including monolines	6,731	7,406	13,021	13,936
Telecommunication services	5,870	6,317	12,935	16,925
Automobiles and components	5,710	5,459	12,687	12,969
Consumer durables and apparel	6,403	6,042	12,224	11,460
Food and staples retailing	5,006	4,795	9,367	8,869
Religious and social organizations	4,196	4,423	6,133	6,252
Other	10,376	6,109	16,285	13,432
Total commercial credit exposure by industry	$596,421	$ 574,892	$959,492	$ 951,081
Net credit default protection purchased on total commitments [4]			$(2,098)	$ (3,477)

[1] Includes U.S. small business commercial exposure.

[2] Includes the notional amount of unfunded legally binding lending commitments net of amounts distributed (e.g., syndicated or participated) to other financial institutions. The distributed amounts were $11.3 billion and $12.1 billion at September 30, 2017 and December 31, 2016.

[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 borrowers' or counterparties' primary business activity using operating cash flows and primary source of repayment as key factors.

[4] Represents net notional credit protection purchased. For additional information, see Commercial Portfolio Credit Risk Management – Risk Mitigation below.

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 September 30, 2017 and December 31, 2016, 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 $2.1 billion and $3.5 billion. We recorded net losses of $10 million and $57 million for the three and nine months ended September 30, 2017 compared to net losses of $80 million and $408 million for the same periods in 2016 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 50. For additional information, see Trading Risk Management on page 60.
Tables 43 and 44 present the maturity profiles and the credit exposure debt ratings of the net credit default protection portfolio at September 30, 2017 and December 31, 2016.

Table 43 Net Credit Default Protection by Maturity

	September 30 2017		December 31 2016	
Less than or equal to one year	42	%	56	%
Greater than one year and less than or equal to five years	55		41	
Greater than five years	3		3	
Total net credit default protection	100	%	100	%

Table 44 Net Credit Default Protection by Credit Exposure Debt Rating

	September 30, 2017		December 31, 2016	
(Dollars in millions)	Net Notional [1]	Percent of Total	Net Notional [1]	Percent of Total
Ratings [2, 3]				
A	$(280)	13.3 %	$(135)	3.9 %
BBB	(597)	28.5	(1,884)	54.2
BB	(570)	27.2	(871)	25.1
B	(528)	25.2	(477)	13.7
CCC and below	(101)	4.8	(81)	2.3
NR [4]	(22)	1.0	(29)	0.8
Total net credit default protection	$(2,098)	100.0%	$(3,477)	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.

In addition to our net notional credit default protection purchased to cover the funded and unfunded portion of certain credit exposures, credit derivatives are used for market-making activities for clients and establishing positions intended to profit from directional or relative value changes. We execute the majority of our credit derivative trades in the OTC market with large, multinational financial institutions, including broker-dealers and, to a lesser degree, with a variety of other investors. Because these

transactions are executed in the OTC market, we are subject to settlement risk. We are also subject to credit risk in the event that these counterparties fail to perform under the terms of these contracts. In most cases, credit derivative transactions are executed on a daily margin basis. Therefore, events such as a credit downgrade, depending on the ultimate rating level, or a breach of credit covenants would typically require an increase in the amount of collateral required by the counterparty, where applicable, and/or allow us to take additional protective measures such as early termination of all trades.

Table 45 presents the total contract/notional amount of credit derivatives outstanding and includes both purchased and written credit derivatives. The credit risk amounts are measured as net asset exposure by counterparty, taking into consideration all contracts with the counterparty. For more information on our written credit derivatives, see Note 2 – Derivatives to the Consolidated Financial Statements.

The credit risk amounts discussed above and presented in Table 45 take into consideration the effects of legally enforceable master netting agreements while amounts disclosed in Note 2 – Derivatives to the Consolidated Financial Statements are shown on a gross basis. Credit risk reflects the potential benefit from offsetting exposure to non-credit derivative products with the same counterparties that may be netted upon the occurrence of certain events, thereby reducing our overall exposure.

Table 45 Credit Derivatives

(Dollars in millions)	September 30, 2017		December 31, 2016	
	Contract/ Notional	Credit Risk	Contract/ Notional	Credit Risk
Purchased credit derivatives:				
Credit default swaps	$522,839	$2,397	$603,979	$2,732
Total return swaps/other	57,591	263	21,165	433
Total purchased credit derivatives	$580,430	$2,660	$625,144	$3,165
Written credit derivatives:				
Credit default swaps	$514,479	n/a	$614,355	n/a
Total return swaps/other	55,313	n/a	25,354	n/a
Total written credit derivatives	$569,792	n/a	$639,709	n/a

n/a = not applicable

Counterparty Credit Risk Valuation Adjustments

We record counterparty credit risk valuation adjustments on certain derivative assets, including our credit default protection purchased, in order to properly reflect the credit risk of the counterparty, as presented in Table 46. We calculate CVA based on a modeled expected exposure that incorporates current market risk factors including changes in market spreads and non-credit related market factors that affect the value of a derivative. The exposure also takes into consideration credit mitigants such as legally enforceable master netting agreements and collateral. For additional information, see Note 2 – Derivatives to the Consolidated Financial Statements.

We enter into risk management activities to offset market driven exposures. We often hedge the counterparty spread risk in CVA with credit default swaps (CDS). We hedge other market risks in CVA primarily with currency and interest rate swaps. In certain instances, the net-of-hedge amounts in the following table move

in the same direction as the gross amount or may move in the opposite direction. This movement is a consequence of the complex interaction of the risks being hedged, resulting in limitations in the ability to perfectly hedge all of the market exposures at all times.

Table 46 Credit Valuation Gains and Losses

Three Months Ended September 30

(Dollars in millions)	2017			2016		
Gains (Losses)	Gross	Hedge	Net	Gross	Hedge	Net
Credit valuation	$23	$(8)	$15	$280	$(214)	$66

	Nine Months Ended September 30					
	2017			2016		
	Gross	Hedge	Net	Gross	Hedge	Net
Credit valuation	$281	$(188)	$93	$45	$106	$151

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 47 presents our 20 largest non-U.S. country exposures as of September 30, 2017. These exposures accounted for 87 percent and 88 percent of our total non-U.S. exposure at September 30, 2017 and December 31, 2016. Net country exposure for these 20 countries increased $10.3 billion in the nine months ended September 30, 2017 primarily driven by increases in China, Mexico, Belgium, South Korea and Japan, partially offset by decreases in Switzerland, Brazil and the U.K. On a product basis, the increase was driven by increased funded commitments in China, the Netherlands, Mexico and Belgium, along with increased sovereign securities in Japan, India and Korea. These increases were partially offset by the sale of the non-

U.S. consumer credit card business in the second quarter of 2017, and lower unfunded commitments in Switzerland and lower funded commitments in Brazil.

Non-U.S. exposure is presented on an internal risk management basis and includes sovereign and non-sovereign credit exposure, securities and other investments issued by or domiciled in countries other than the U.S.

Funded loans and loan equivalents include loans, leases, and other extensions of credit and funds, including letters of credit and due from placements, which have not been reduced by collateral, hedges or credit default protection. Unfunded commitments are the undrawn portion of legally binding commitments related to loans and loan equivalents.

Net counterparty exposure includes the fair value of derivatives, including the counterparty risk associated with CDS, and secured financing transactions.

Securities and other investments are carried at fair value and long securities exposures are netted against short exposures with the same underlying issuer to, but not below, zero (i.e., negative issuer exposures are reported as zero).

Net country exposure represents country exposure less hedges and credit default protection purchased, net of credit default protection sold. For more information on our non-U.S. credit and trading portfolios, see Non-U.S. Portfolio in the MD&A of the Corporation's 2016 Annual Report on Form 10-K.

Table 47 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 September 30 2017	Hedges and Credit Default Protection	Net Country Exposure at September 30 2017	Increase (Decrease) from December 31 2016
United Kingdom	$ 28,518	$ 14,359	$ 5,020	$ 2,619	$ 50,516	$ (4,814)	$ 45,702	$ (2,031)
Germany	12,374	9,093	1,720	3,603	26,790	(3,607)	23,183	805
Canada	7,942	7,725	2,012	2,460	20,139	(647)	19,492	718
Japan	11,234	549	1,720	4,823	18,326	(1,690)	16,636	1,625
China	11,852	711	509	1,345	14,417	(234)	14,183	3,298
Brazil	7,665	379	382	3,476	11,902	(315)	11,587	(2,079)
France	5,047	5,711	2,141	4,245	17,144	(5,654)	11,490	796
India	6,792	265	385	3,573	11,015	(953)	10,062	834
Australia	5,096	2,810	415	1,994	10,315	(515)	9,800	877

Netherlands	5,137	3,488	763	1,428	10,816	(2,015)	8,801	1,403
Hong Kong	6,845	200	580	704	8,329	(43)	8,286	807
South Korea	4,984	610	757	2,048	8,399	(418)	7,981	1,875
Mexico	3,901	1,616	228	1,650	7,395	(548)	6,847	2,363
Singapore	2,996	315	790	2,128	6,229	(65)	6,164	746
Switzerland	3,414	3,093	300	107	6,914	(1,613)	5,301	(4,345)
Italy	2,483	1,479	587	566	5,115	(1,114)	4,001	(86)
Belgium	2,274	777	114	1,051	4,216	(313)	3,903	1,977
Turkey	2,741	60	37	272	3,110	(1)	3,109	419
Spain	1,740	1,156	299	1,023	4,218	(1,172)	3,046	500
United Arab Emirates	2,186	111	284	78	2,659	(91)	2,568	(175)
Total top 20 non-U.S. countries exposure	$ 135,221	$ 54,507	$ 19,043	$ 39,193	$ 247,964	$ (25,822)	$ 222,142	$ 10,327

A number of economic conditions and geopolitical events have given rise to risk aversion in certain emerging markets. Our two largest emerging market country exposures at September 30, 2017 were China and Brazil. At September 30, 2017, net exposure to China was $14.2 billion, concentrated in large state-owned

companies, subsidiaries of multinational corporations and commercial banks. At September 30, 2017, net exposure to Brazil was $11.6 billion, concentrated in sovereign securities, oil and gas companies and commercial banks.

The outlook for policy direction and therefore economic performance in the European Union (EU) remains uncertain as a consequence of reduced political cohesion among EU countries. Additionally, we believe that the uncertainty on the U.K.'s ability to negotiate a favorable exit from the EU will further weigh on economic performance. Our largest EU country exposure at September 30, 2017 was the U.K. At September 30, 2017, net exposure to the U.K. was $45.7 billion, concentrated in multinational corporations and sovereign clients. For additional information, see Executive Summary – Third Quarter 2017 Economic and Business Environment on page 3.

Provision for Credit Losses

The provision for credit losses decreased $16 million to $834 million, and $428 million to $2.4 billion for the three and nine months ended September 30, 2017 compared to the same periods in 2016. The provision for credit losses was $66 million and $347 million lower than net charge-offs for the three and nine months ended September 30, 2017, resulting in a reduction in the allowance for credit losses. This compared to a reduction of $38 million and $118 million in the allowance for credit losses for the three and nine months ended September 30, 2016.

The provision for credit losses for the consumer portfolio increased $25 million to $730 million, and $268 million to $2.1 billion for the three and nine months ended September 30, 2017 compared to the same periods in 2016. The increase for both periods was primarily driven by a provision increase of $218 million and $554 million in the U.S. credit card portfolio due to portfolio seasoning and loan growth, largely offset by improvement in the home equity portfolio due to increased home prices and lower nonperforming loans. Included in the provision is an expense of $12 million and $56 million related to the PCI loan portfolio for the three and nine months ended September 30, 2017 compared to an expense of $8 million and a benefit of $81 million for the same periods in 2016.

The provision for credit losses for the commercial portfolio, including unfunded lending commitments, decreased $41 million to $104 million, and $696 million to $287 million for the three and nine months ended September 30, 2017 compared to the same periods in 2016 driven by reductions in energy exposures.

Allowance for Credit Losses

Allowance for Loan and Lease Losses

The allowance for loan and lease losses is comprised of two components. The first component covers nonperforming commercial loans and TDRs. The second component covers loans and leases on which there are incurred losses that are not yet individually identifiable, as well as incurred losses that may not be represented in the loss forecast models. We evaluate the adequacy of the allowance for loan and lease losses based on the total of these two components. The allowance for loan and lease losses excludes LHFS and loans accounted for under the fair value option as the fair value reflects a credit risk component. For more information on the allowance for loan and lease losses, see Allowance for Credit Losses in the MD&A of the Corporation's 2016 Annual Report on Form 10-K.

During the three and nine months ended September 30, 2017, the factors that impacted the allowance for loan and lease losses included improvements in the credit quality of the consumer real estate portfolios driven by continuing improvements in the U.S. economy and labor markets, proactive credit risk management initiatives and the impact of high credit quality originations. Evidencing the improvements in the U.S. economy and labor markets are downward unemployment trends and increases in home prices. In addition to these improvements, in the consumer portfolio, nonperforming consumer loans decreased $752 million in the nine months ended September 30, 2017 as returns to performing status, charge-offs, paydowns and loan sales continued to outpace new nonaccrual loans. During the nine months ended September 30, 2017, the allowance for loan and lease losses in the commercial portfolio reflected decreased energy reserves primarily driven by reductions in energy exposures.

The allowance for loan and lease losses for the consumer portfolio, as presented in Table 49, was $5.6 billion at September 30, 2017, a decrease of $640 million from December 31, 2016. The decrease was primarily in the home equity portfolio and the non-U.S. card portfolio which was sold during the second quarter of 2017, partially offset by an increase in the U.S. credit card portfolio. The reduction in the home equity portfolio was due to improved home prices, lower nonperforming loans and a decrease in loan balances. The increase in the U.S. credit card portfolio was driven by portfolio seasoning and loan growth.

The allowance for loan and lease losses for the commercial portfolio, as presented in Table 49, was $5.1 billion at September 30, 2017, a decrease of $147 million from December 31, 2016 driven by decreased energy reserves due to reductions in the higher risk energy sub-sectors. Commercial utilized reservable criticized exposure decreased to $14.8

billion at September 30, 2017 from $16.3 billion (to 2.91 percent from 3.35 percent of total commercial utilized reservable exposure) at December 31, 2016, largely due to paydowns and net upgrades in the energy portfolio. Nonperforming commercial loans decreased to $1.3 billion at September 30, 2017 from $1.7 billion (to 0.28 percent from 0.38 percent of outstanding commercial loans excluding loans accounted for under the fair value option) at December 31, 2016. See Tables 35, 36 and 38 for additional details on key commercial credit statistics.

The allowance for loan and lease losses as a percentage of total loans and leases outstanding was 1.16 percent at September 30, 2017 compared to 1.26 percent at December 31, 2016. The September 30, 2017 and December 31, 2016 ratios above include the PCI loan portfolio. Excluding the PCI loan portfolio, the allowance for loan and lease losses as a percentage of total loans and leases outstanding was 1.14 percent and 1.24 percent at September 30, 2017 and December 31, 2016.

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 2016 Annual Report on Form 10-K.

The reserve for unfunded lending commitments was $762 million at both September 30, 2017 and December 31, 2016.

Table 48 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 nine months ended September 30, 2017 and 2016.

Table 48 Allowance for Credit Losses

(Dollars in millions)	Three Months Ended September 30 2017	Three Months Ended September 30 2016	Nine Months Ended September 30 2017	Nine Months Ended September 30 2016
Allowance for loan and lease losses, beginning of period	$10,875	$11,837	$11,237	$12,234
Loans and leases charged off				
Residential mortgage	(51)	(66)	(157)	(339)
Home equity	(180)	(180)	(476)	(589)
U.S. credit card	(727)	(648)	(2,198)	(2,021)
Non-U.S. credit card [1]	—	(59)	(103)	(183)
Direct/Indirect consumer	(135)	(98)	(356)	(287)
Other consumer	(57)	(63)	(162)	(173)
Total consumer charge-offs	(1,150)	(1,114)	(3,452)	(3,592)
U.S. commercial [2]	(171)	(141)	(449)	(423)
Commercial real estate	(4)	(1)	(12)	(9)
Commercial lease financing	(3)	(9)	(9)	(26)
Non-U.S. commercial	(34)	(12)	(100)	(101)
Total commercial charge-offs	(212)	(163)	(570)	(559)
Total loans and leases charged off	(1,362)	(1,277)	(4,022)	(4,151)
Recoveries of loans and leases previously charged off				
Residential mortgage	133	62	241	210
Home equity	97	83	279	254
U.S. credit card	115	105	340	318
Non-U.S. credit card	—	16	28	49
Direct/Indirect consumer	68	64	209	196
Other consumer	6	6	46	21
Total consumer recoveries	419	336	1,143	1,048
U.S. commercial [3]	36	24	113	111
Commercial real estate	2	24	9	40
Commercial lease financing	4	3	9	7
Non-U.S. commercial	1	2	6	4
Total commercial recoveries	43	53	137	162
Total recoveries of loans and leases previously charged off	462	389	1,280	1,210
Net charge-offs	(900)	(888)	(2,742)	(2,941)
Write-offs of PCI loans	(73)	(83)	(161)	(270)
Provision for loan and lease losses	829	834	2,395	2,802
Other [4]	(38)	(8)	(36)	(133)
Allowance for loan and lease losses, September 30	10,693	11,692	10,693	11,692
Reserve for unfunded lending commitments, beginning of period	757	750	762	646
Provision for unfunded lending commitments	5	16	—	21
Other [4]	—	1	—	100

Reserve for unfunded lending commitments, September 30	762	767	762	767
Allowance for credit losses, September 30	$11,455	$12,459	$11,455	$12,459

(1) Represents net charge-offs of non-U.S. credit card loans, which were previously included in assets of business held for sale. During the second quarter of 2017, the Corporation sold its non-U.S. consumer credit card business.

(2) Includes U.S. small business commercial charge-offs of $65 million and $193 million for the three and nine months ended September 30, 2017 compared to $66 million and $189 million for the same periods in 2016.

(3) Includes U.S. small business commercial recoveries of $10 million and $33 million for the three and nine months ended September 30, 2017 compared to $11 million and $32 million for the same periods in 2016.

(4) Primarily represents the net impact of portfolio sales, consolidations and deconsolidations, foreign currency translation adjustments, transfers to held-for-sale and certain other reclassifications.

Table 48 Allowance for Credit Losses (continued)

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Loan and allowance ratios:				
Loans and leases outstanding at September 30 [5]	$920,832	$896,900	$920,832	$896,900
Allowance for loan and lease losses as a percentage of total loans and leases outstanding at September 30 [5]	1.16 %	1.30 %	1.16 %	1.30 %
Consumer allowance for loan and lease losses as a percentage of total consumer loans and leases outstanding at September 30 [6]	1.25	1.42	1.25	1.42
Commercial allowance for loan and lease losses as a percentage of total commercial loans and leases outstanding at September 30 [7]	1.08	1.19	1.08	1.19
Average loans and leases outstanding [5]	$911,945	$892,207	$908,670	$889,498
Annualized net charge-offs as a percentage of average loans and leases outstanding [5, 8]	0.39 %	0.40 %	0.40 %	0.44 %
Annualized net charge-offs and PCI write-offs as a percentage of average loans and leases outstanding [5]	0.42	0.43	0.43	0.48
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases at September 30 [5, 9]	163	140	163	140
Ratio of the allowance for loan and lease losses at September 30 to annualized net charge-offs [8]	3.00	3.31	2.92	2.98
Ratio of the allowance for loan and lease losses at September 30 to annualized net charge-offs and PCI write-offs	2.77	3.03	2.76	2.73
Amounts included in allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at September 30 [10]	$3,880	$4,068	$3,880	$4,068
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 September 30 [5, 10]	104 %	91 %	104 %	91 %
Loan and allowance ratios excluding PCI loans and the related valuation allowance: [11]				
Allowance for loan and lease losses as a percentage of total loans and leases outstanding at September 30 [5]	1.14 %	1.27 %	1.14 %	1.27 %
Consumer allowance for loan and lease losses as a percentage of total consumer loans and leases outstanding at September 30 [6]	1.21	1.36	1.21	1.36
	0.40	0.40	0.41	0.45

Annualized net charge-offs as a percentage of average loans and leases outstanding [5]				
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases at September 30 [5, 9]	158	135	158	135
Ratio of the allowance for loan and lease losses at September 30 to annualized net charge-offs	2.91	3.18	2.83	2.86

(5) Outstanding loan and lease balances and ratios do not include loans accounted for under the fair value option of $6.3 billion and $8.1 billion at September 30, 2017 and 2016. Average loans accounted for under the fair value option were $6.2 billion and $7.0 billion for the three and nine months ended September 30, 2017 compared to $8.4 billion and $8.3 billion for the same periods in 2016.

(6) Excludes consumer loans accounted for under the fair value option of $978 million and $1.8 billion at September 30, 2017 and 2016.

(7) Excludes commercial loans accounted for under the fair value option of $5.3 billion and $6.3 billion at September 30, 2017 and 2016.

(8) Net charge-offs exclude $73 million and $161 million of write-offs in the PCI loan portfolio for the three and nine months ended September 30, 2017 compared to $83 million and $270 million for the same periods in 2016. For more information on PCI write-offs, see Consumer Portfolio Credit Risk Management – Purchased Credit-impaired Loan Portfolio on page 45.

(9) For more information on our definition of nonperforming loans, see pages 48 and 52.

(10) Primarily includes amounts allocated to U.S. credit card and unsecured consumer lending portfolios in Consumer Banking, PCI loans and the non-U.S. credit card portfolio in All Other.

(11) For more information on the PCI loan portfolio and the valuation allowance for PCI loans, see Note 4 – Outstanding Loans and Leases and Note 5 – Allowance for Credit Losses to the Consolidated Financial Statements.

For reporting purposes, we allocate the allowance for credit losses across products as presented in Table 49.

Table 49 Allocation of the Allowance for Credit Losses by Product Type

	September 30, 2017			December 31, 2016		
(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]
Allowance for loan and lease losses						
Residential mortgage	$813	7.60 %	0.41 %	$1,012	8.82 %	0.53 %
Home equity	1,219	11.40	2.04	1,738	15.14	2.62
U.S. credit card	3,263	30.52	3.52	2,934	25.56	3.18
Non-U.S. credit card	—	—	—	243	2.12	2.64
Direct/Indirect consumer	255	2.38	0.27	244	2.13	0.26
Other consumer	32	0.30	1.32	51	0.44	2.01
Total consumer	5,582	52.20	1.25	6,222	54.21	1.36
U.S. commercial [2]	3,199	29.92	1.08	3,326	28.97	1.17
Commercial real estate	956	8.94	1.60	920	8.01	1.60
Commercial lease financing	144	1.35	0.67	138	1.20	0.62
Non-U.S. commercial	812	7.59	0.85	874	7.61	0.98
Total commercial	5,111	47.80	1.08	5,258	45.79	1.16
Allowance for loan and lease losses [3]	10,693	100.00 %	1.16	11,480	100.00 %	1.26
Less: Allowance included in assets of	—			(243)		

business held for sale [4]		
Total allowance for loan and lease losses	10,693	11,237
Reserve for unfunded lending commitments	762	762
Allowance for credit losses	$11,455	$11,999

(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 included residential mortgage loans of $615 million and $710 million and home equity loans of $363 million and $341 million at September 30, 2017 and December 31, 2016. Commercial loans accounted for under the fair value option included U.S. commercial loans of $2.8 billion and $2.9 billion and non-U.S. commercial loans of $2.5 billion and $3.1 billion at September 30, 2017 and December 31, 2016.

(2) Includes allowance for loan and lease losses for U.S. small business commercial loans of $422 million and $416 million at September 30, 2017 and December 31, 2016.

(3) Includes $315 million and $419 million of valuation allowance presented with the allowance for loan and lease losses related to PCI loans at September 30, 2017 and December 31, 2016.

(4) Represents allowance for loan and lease losses related to the non-U.S. credit card loan portfolio, which was included in assets of business held for sale on the Consolidated Balance Sheet at December 31, 2016. During the second quarter of 2017, the Corporation sold its non-U.S. consumer credit card business.

Market Risk Management

For more information on our market risk management process, see Market Risk Management in the MD&A of the Corporation's 2016 Annual Report on Form 10-K.

Trading Risk Management

To evaluate risk arising from trading activities, the Corporation focuses 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 as it allows the aggregation of market risk factors, including the effects of portfolio diversification. A VaR model simulates the value of a portfolio under a range of scenarios in order to generate a distribution of potential gains and losses. VaR represents the loss a portfolio is not expected to exceed more than a certain number of times per period, based on a specified holding period, confidence level and window of historical data. We use one VaR model consistently across the trading portfolios and it uses a historical simulation approach based on a three-year window of historical data. Our primary VaR statistic is equivalent to a 99 percent confidence level. This 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. For more information on our trading risk management process, see Trading Risk Management in the MD&A of the Corporation's 2016 Annual Report on Form 10-K.

Table 50 presents the total market-based trading portfolio VaR which is the combination of the covered positions trading portfolio and the impact from less liquid trading exposures. Covered positions are defined by regulatory standards as trading assets

and liabilities, both on- and off-balance sheet, that meet a defined set of specifications. These specifications identify the most liquid trading positions which are intended to be held for a short-term horizon and where we are able to hedge the material risk elements in a two-way market. Positions in less liquid markets, or where there are restrictions

on the ability to trade the positions, typically do not qualify as covered positions. Foreign exchange and commodity positions are always considered covered positions, except for structural foreign currency positions that are excluded with prior regulatory approval. In addition, Table 50 presents our fair value option portfolio, which includes substantially all of the funded and unfunded exposures for which we elect the fair value option, and their corresponding hedges. The fair value option portfolio combined with the total market-based trading portfolio VaR represents our total market-based portfolio VaR. Additionally, market risk VaR for trading activities as presented in Table 50 differs from VaR used for regulatory capital calculations due to the holding period being used. The holding period for VaR used for regulatory capital calculations is 10 days, while for the market risk VaR presented below, it is one day. Both measures utilize the same process and methodology.
The total market-based portfolio VaR results in Table 50 include market risk to which we are exposed from all business segments, excluding CVA and DVA. The majority of this portfolio is in the Global Markets segment. Table 50 presents period-end, average, high and low daily trading VaR for the three months ended September 30, 2017, June 30, 2017 and September 30, 2016, as well as average daily trading VaR for the nine months ended September 30, 2017 and 2016, using a 99 percent confidence level.

Table 50 Market Risk VaR for Trading Activities

	Three Months Ended												Nine Months Ended	
	September 30, 2017				June 30, 2017				September 30, 2016				September 30	
(Dollars in millions)	Period End	Average	High [(1)]	Low [(1)]	Period End	Average	High [(1)]	Low [(1)]	Period End	Average	High [(1)]	Low [(1)]	2017 Average	2016 Average
Foreign exchange	$6	$ 10	$ 15	$ 5	$11	$ 13	$ 25	$ 3	$7	$ 8	$ 11	$ 6	$12	$ 9
Interest rate	15	21	41	14	18	23	33	15	15	20	25	15	20	21
Credit	24	25	29	23	26	25	29	22	31	29	37	25	25	30
Equity	17	17	33	12	19	18	26	13	16	17	24	11	18	19
Commodity	4	5	7	4	6	6	9	4	8	7	10	5	5	6
Portfolio diversification	(40)	(44)	—	—	(45)	(47)	—	—	(45)	(47)	—	—	(45)	(47)
Total covered positions trading portfolio	26	34	51	24	35	38	53	26	32	34	46	28	35	38
Impact from less liquid exposures	3	7	—	—	3	5	—	—	12	6	—	—	6	5
Total market-based trading portfolio	29	41	63	26	38	43	60	32	44	40	50	31	41	43
Fair value option loans	10	10	12	9	9	10	12	9	16	18	23	16	11	26
Fair value option hedges	8	8	9	6	6	5	7	4	7	8	11	6	6	13
Fair value option portfolio diversification	(11)	(9)	—	—	(6)	(6)	—	—	(12)	(15)	—	—	(8)	(24)
Total fair value option portfolio	7	9	10	7	9	9	11	8	11	11	16	9	9	15
Portfolio diversification	(4)	(3)	—	—	(5)	(4)	—	—	(3)	(4)	—	—	(4)	(8)

Total market-based portfolio	$32	$ 47	69	29	$42	$ 48	66	36	$52	$ 47	61	36	$46	$ 50

(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 total market-based trading portfolio VaR for the previous five quarters, corresponding to the data in Table 50.

Additional VaR statistics produced within our single VaR model are provided in Table 51 at the same level of detail as in Table 50. 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 51 presents average trading VaR statistics at 99 percent and 95 percent confidence levels for the three months ended September 30, 2017, June 30, 2017 and September 30, 2016.

Table 51 Average Market Risk VaR for Trading Activities – 99 percent and 95 percent VaR Statistics

	Three Months Ended					
	September 30, 2017		June 30, 2017		September 30, 2016	
(Dollars in millions)	99 percent	95 percent	99 percent	95 percent	99 percent	95 percent
Foreign exchange	$10	$ 6	$13	$ 7	$ 8	$ 4
Interest rate	21	14	23	16	20	13
Credit	25	15	25	15	29	18
Equity	17	9	18	9	17	10
Commodity	5	3	6	4	7	4
Portfolio diversification	(44)	(30)	(47)	(30)	(47)	(30)
Total covered positions trading portfolio	34	17	38	21	34	19
Impact from less liquid exposures	7	2	5	2	6	3
Total market-based trading portfolio	41	19	43	23	40	22
Fair value option loans	10	6	10	6	18	10
Fair value option hedges	8	6	5	4	8	6
Fair value option portfolio diversification	(9)	(7)	(6)	(5)	(15)	(9)
Total fair value option portfolio	9	5	9	5	11	7
Portfolio diversification	(3)	(3)	(4)	(3)	(4)	(3)
	$47	$ 21	$48	$ 25	$ 47	$ 26

Total
market-based
portfolio

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. A backtesting excess occurs when a trading loss exceeds the VaR for the corresponding day. These excesses are evaluated to understand the positions and market moves that produced the trading loss and to ensure that the VaR methodology accurately represents those losses. For more information on our backtesting process, see Trading Risk Management – Backtesting in the MD&A of the Corporation's 2016 Annual Report on Form 10-K.

During the three and nine months ended September 30, 2017, there were no days in which there was a backtesting excess for our total market-based 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 (FVA) 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. Trading account assets and liabilities are reported at fair value. For more

information on fair value, see Note 14 – Fair Value Measurements to the Consolidated Financial Statements. Trading-related revenue can be volatile and is largely driven by general market conditions and customer demand. Also, trading-related revenue is dependent on the volume and type of transactions, the level of risk assumed, and the volatility of price and rate movements at any given time within the ever-changing market environment. Significant daily revenue by business is monitored and the primary drivers of these are reviewed.

The following histogram is a graphic depiction of trading volatility and illustrates the daily level of trading-related revenue for the three months ended September 30, 2017 compared to the three months ended June 30, 2017 and March 31, 2017. During the three months ended September 30, 2017, positive trading-related revenue was recorded for 100 percent of the trading days, of which 77 percent were daily trading gains of over $25 million. This compares to the three months ended June 30, 2017, where positive trading-related revenue was recorded for all of the trading days, of which 80 percent were daily trading gains of over $25 million. During the three months ended March 31, 2017, positive trading-related revenue was recorded for all 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 2016 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.

Interest rate risk represents the most significant market risk exposure to our banking book balance sheet. Interest rate risk is measured as the potential change in net interest income caused by movements in market interest rates. Client-facing activities, primarily lending and deposit-taking, create interest rate sensitive positions on our balance sheet.

We prepare forward-looking forecasts of net interest income. The baseline forecast takes into consideration expected future business growth, ALM positioning and the direction of interest rate movements as implied by the market-based forward curve. We then measure and evaluate the impact that alternative interest rate scenarios have on the baseline forecast in order to assess interest rate sensitivity under varied conditions. The net interest income forecast is frequently updated for changing assumptions and differing outlooks based on economic trends, market conditions and business strategies. Thus, we continually monitor

our balance sheet position in order to maintain an acceptable level of exposure to interest rate changes.

The interest rate scenarios that we analyze incorporate balance sheet assumptions such as loan and deposit growth and pricing, changes in funding mix, product repricing, maturity characteristics and investment securities premium amortization. Our overall goal is to manage interest rate risk so that movements in interest rates do not significantly adversely affect earnings and capital.

Table 52 presents the spot and 12-month forward rates used in our baseline forecasts at September 30, 2017 and December 31, 2016.

Table 52 Forward Rates

	September 30, 2017		
	Federal Funds	Three-month LIBOR	10-Year Swap
Spot rates	1.25 %	1.33 %	2.29 %
12-month forward rates	1.75	1.77	2.40
	December 31, 2016		
Spot rates	0.75 %	1.00 %	2.34 %
12-month forward rates	1.25	1.51	2.49

Table 53 shows the pre-tax dollar impact to forecasted net interest income over the next 12 months from September 30, 2017 and December 31, 2016, 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 nine months ended September 30, 2017, the asset sensitivity of our balance sheet to rising rates was largely unchanged. We continue to be asset sensitive to a parallel move in interest rates with the majority of that benefit 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 available-for-sale (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 the transition provisions of Basel 3, see Capital Management – Regulatory Capital on page 29.

Table 53 Estimated Banking Book Net Interest Income Sensitivity

(Dollars in millions)	Short Rate (bps)	Long Rate (bps)	September 30 2017	December 31 2016
Curve Change				
Parallel Shifts				
+100 bps instantaneous shift	+100	+100	$ 3,234	$ 3,370
-50 bps instantaneous shift	-50	-50	(2,306)	(2,900)
Flatteners				
Short-end instantaneous change	+100	—	2,203	2,473
Long-end instantaneous change	—	-50	(1,166)	(961)
Steepeners				
Short-end instantaneous change	-50	—	(1,125)	(1,918)
Long-end instantaneous change	—	+100	1,042	928

The sensitivity analysis in Table 53 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 deposit 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 53 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 2 – Derivatives to the Consolidated Financial Statements.

Our interest rate contracts are generally non-leveraged generic interest rate and foreign exchange basis swaps, options, futures and forwards. In addition, we use foreign exchange contracts, including cross-currency interest rate swaps, foreign currency futures contracts, foreign currency forward contracts and options to mitigate the foreign exchange risk associated with foreign currency-denominated assets and liabilities.

Changes to the composition of our derivatives portfolio during the nine months ended September 30, 2017 reflect actions taken for interest rate and foreign exchange rate risk management. The decisions to reposition our derivatives portfolio are based on the current assessment of economic and financial conditions including the interest rate and foreign currency environments, balance sheet composition and trends, and the relative mix of our cash and derivative positions.

Table 54 presents derivatives utilized in our ALM activities including those designated as accounting and economic hedging instruments 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 September 30, 2017 and December 31, 2016. These amounts do not include derivative hedges on our MSRs.

Table 54 Asset and Liability Management Interest Rate and Foreign Exchange Contracts

		September 30, 2017 Expected Maturity							
(Dollars in millions, average estimated duration in years)	Fair Value	Total	Remainder of 2017	2018	2019	2020	2021	Thereafter	Average Estimated Duration
Receive-fixed interest rate swaps (1)	$3,591								5.31
Notional amount		$151,504	$5,780	$21,850	$21,783	$15,115	$5,307	$81,669	
Weighted-average fixed-rate		2.50 %	3.60 %	3.20 %	1.87 %	1.87 %	3.18 %	2.48 %	
Pay-fixed interest rate swaps (1)	(202)								5.63
Notional amount		$25,330	$—	$6,408	$—	$—	$—	$18,922	
Weighted-average fixed-rate		2.09 %	— %	1.60 %	— %	— %	— %	2.26 %	
Same-currency basis swaps (2)	(29)								
Notional amount		$43,551	$4,935	$11,028	$6,790	$1,180	$2,809	$16,809	
Foreign exchange basis swaps (1, 3, 4)	(1,830)								
Notional amount		113,011	5,294	24,124	11,947	13,325	9,393	48,928	
Option products (5)	6								
Notional amount (6)		1,869	671	1,182	—	—	—	16	
Foreign exchange contracts (1, 4, 7)	1,463								

Notional amount (6)		3,623	(6,908)	(6,169)	2,201	(20)	2,438	12,081	
Net ALM contracts	$2,999								

(Dollars in millions, average estimated duration in years)	Fair Value	December 31, 2016 Expected Maturity Total	2017	2018	2019	2020	2021	Thereafter	Average Estimated Duration
Receive-fixed interest rate swaps (1)	$4,055								4.81
Notional amount		$118,603	$21,453	$25,788	$10,283	$7,515	$5,307	$48,257	
Weighted-average fixed-rate		2.83 %	3.64 %	2.81 %	2.31 %	2.07 %	3.18 %	2.67 %	
Pay-fixed interest rate swaps (1)	159								2.77
Notional amount		$22,400	$1,527	$9,168	$2,072	$7,975	$213	$1,445	
Weighted-average fixed-rate		1.37 %	1.84 %	1.47 %	0.97 %	1.08 %	1.00 %	2.45 %	
Same-currency basis swaps (2)	(26)								
Notional amount		$59,274	$20,775	$11,027	$6,784	$1,180	$2,799	$16,709	
Foreign exchange basis swaps (1, 3, 4)	(4,233)								
Notional amount		125,522	26,509	22,724	12,178	12,150	8,365	43,596	
Option products (5)	5								
Notional amount (6)		1,687	1,673	—	—	—	—	14	
Foreign exchange	3,180								

contracts (1, 4, 7)								
Notional amount (6)		(20,285)	(30,199)	197	1,961	(8)	881	6,883
Futures and forward rate contracts	19							
Notional amount (6)		37,896	37,896	—	—	—	—	—
Net ALM contracts	$3,159							

(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 September 30, 2017 and December 31, 2016, the notional amount of same-currency basis swaps included $43.6 billion and $59.3 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 option products of $1.9 billion and $1.7 billion at September 30, 2017 and December 31, 2016 was substantially all in foreign exchange options.

(6) Reflects the net of long and short positions. Amounts shown as negative reflect a net short position.

(7) The notional amount of foreign exchange contracts of $3.6 billion at September 30, 2017 was comprised of $41.7 billion in foreign currency-denominated and cross-currency receive-fixed swaps, $(32.6) billion in net foreign currency forward rate contracts, $(6.5) billion in foreign currency-denominated pay-fixed swaps and $1.0 billion in net foreign currency futures contracts. Foreign exchange contracts of $(20.3) billion at December 31, 2016 were comprised of $21.5 billion in foreign currency-denominated and cross-currency receive-fixed swaps, $(38.5) billion in net foreign currency forward rate contracts, $(4.6) billion in foreign currency-denominated pay-fixed swaps and $1.3 billion in foreign currency futures contracts.

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 $1.2 billion and $1.4 billion, on a pre-tax basis, at September 30, 2017 and December 31, 2016. 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 September 30, 2017, the pre-tax net losses are expected to be reclassified into earnings as follows: $164 million, or 14 percent within the next year, 51 percent in years two through five, and 23 percent in years six through 10, with the remaining 12 percent thereafter. For more information on derivatives designated as cash flow hedges, see Note 2 – 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 September 30, 2017.

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.

Interest rate risk and market risk can be substantial in the mortgage business. Changes in interest rates and other market factors impact the volume of mortgage originations. Changes in interest rates also impact the value of IRLCs and the related residential first mortgage LHFS between the date of the IRLC and the date the loans are sold to the secondary market. An increase in mortgage interest rates typically leads to a decrease in the value of these instruments. Conversely, the value of the MSRs will increase driven by lower prepayment expectations when there is an increase in interest rates. Because the interest rate risks of these two hedged items offset, we combine them into one overall hedged item with one combined economic hedge portfolio consisting of derivative contracts and securities.

For the three and nine months ended September 30, 2017, we recorded gains in mortgage banking income of $34 million and $100 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 $136 million and $318 million for the same periods in 2016. For more information on MSRs, see Note 14 – Fair Value Measurements to the Consolidated Financial Statements and for more information on mortgage banking income, see Consumer Banking on page 14.

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 of the MD&A of the Corporation's 2016 Annual Report on Form 10-K and Note 1 – Summary of Significant Accounting Principles to the Consolidated Financial Statements of the Corporation's 2016 Annual Report on Form 10-K.

Non-GAAP Reconciliations

Tables 55 and 56 provide reconciliations of certain non-GAAP financial measures to GAAP financial measures.

Table 55 Quarterly and Year-to-Date Supplemental Financial Data and Reconciliations to GAAP Financial Measures

	Three Months Ended September 30					
	2017			2016		
(Dollars in millions)	As Reported	Fully taxable-equivalent adjustment	Fully taxable-equivalent basis	As Reported	Fully taxable-equivalent adjustment	Fully taxable-equivalent basis
Net interest income	$11,161	$ 240	$ 11,401	$10,201	$ 228	$ 10,429
Total revenue, net of interest expense	21,839	240	22,079	21,635	228	21,863
Income tax expense	2,279	240	2,519	2,349	228	2,577
	Nine Months Ended September 30					
	2017			2016		
Net interest income	$33,205	$ 674	$ 33,879	$30,804	$ 666	$ 31,470
Total revenue, net of interest expense	66,916	674	67,590	63,711	666	64,377
Income tax expense	7,096	674	7,770	5,888	666	6,554

Table 56 Period-end and Average Supplemental Financial Data and Reconciliations to GAAP Financial Measures

	Period-end		Average Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	September 30 2017	December 31 2016	2017	2016	2017	2016
Common shareholders'	$250,136	$241,620	$249,624	$243,679	$246,195	$240,440

equity						
Goodwill	(68,968)	(69,744)	(68,969)	(69,744)	(69,398)	(69,752)
Intangible assets (excluding MSRs)	(2,459)	(2,989)	(2,549)	(3,276)	(2,737)	(3,480)
Related deferred tax liabilities	1,435	1,545	1,465	1,628	1,503	1,666
Tangible common shareholders' equity	$180,144	$170,432	$179,571	$172,287	$175,563	$168,874
Shareholders' equity	$272,459	$266,840	$273,648	$268,899	$271,012	$264,907
Goodwill	(68,968)	(69,744)	(68,969)	(69,744)	(69,398)	(69,752)
Intangible assets (excluding MSRs)	(2,459)	(2,989)	(2,549)	(3,276)	(2,737)	(3,480)
Related deferred tax liabilities	1,435	1,545	1,465	1,628	1,503	1,666
Tangible shareholders' equity	$202,467	$195,652	$203,595	$197,507	$200,380	$193,341
Total assets	$2,283,896	$2,187,702				
Goodwill	(68,968)	(69,744)				
Intangible assets (excluding MSRs)	(2,459)	(2,989)				
Related deferred tax liabilities	1,435	1,545				
Tangible assets	$2,213,904	$2,116,514				

Item 3. Quantitative and Qualitative Disclosures about Market Risk

See Market Risk Management on page 60 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, in recording, processing, summarizing and reporting information required to be disclosed by the Corporation in reports that it files or submits under the Exchange Act, within the time periods specified in the Securities and Exchange Commission’s rules and forms.

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 September 30, 2017, that have materially affected, or are reasonably likely to materially affect, the Corporation's internal control over financial reporting.

Part I. Financial Information
Item 1. Financial Statements
Bank of America Corporation and Subsidiaries

Consolidated Statement of Income

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions, except per share information)	2017	2016	2017	2016
Interest income				
Loans and leases	$9,203	$ 8,358	$26,877	$ 24,837
Debt securities	2,629	2,144	7,764	6,922
Federal funds sold and securities borrowed or purchased under agreements to resell	659	267	1,658	803
Trading account assets	1,091	1,076	3,330	3,330
Other interest income	1,075	765	2,884	2,300
Total interest income	14,657	12,610	42,513	38,192
Interest expense				
Deposits	624	266	1,252	736
Short-term borrowings	944	569	2,508	1,808
Trading account liabilities	319	244	890	778
Long-term debt	1,609	1,330	4,658	4,066
Total interest expense	3,496	2,409	9,308	7,388
Net interest income	11,161	10,201	33,205	30,804
Noninterest income				
Card income	1,429	1,455	4,347	4,349
Service charges	1,968	1,952	5,863	5,660
Investment and brokerage services	3,303	3,160	9,882	9,543
Investment banking income	1,477	1,458	4,593	4,019
Trading account profits	1,837	2,141	6,124	5,821
Mortgage banking income (loss)	(20)	589	332	1,334
Gains on sales of debt securities	125	51	278	490
Other income	559	628	2,292	1,691
Total noninterest income	10,678	11,434	33,711	32,907
Total revenue, net of interest expense	21,839	21,635	66,916	63,711
Provision for credit losses	834	850	2,395	2,823
Noninterest expense				
Personnel	7,483	7,704	24,353	24,278
Occupancy	999	1,005	3,000	3,069
Equipment	416	443	1,281	1,357
Marketing	461	410	1,235	1,243
Professional fees	476	536	1,417	1,433
Amortization of intangibles	151	181	473	554
Data processing	777	685	2,344	2,240
Telecommunications	170	189	538	551
Other general operating	2,206	2,328	7,072	7,065

Total noninterest expense	13,139	13,481	41,713	41,790
Income before income taxes	7,866	7,304	22,808	19,098
Income tax expense	2,279	2,349	7,096	5,888
Net income	$5,587	$ 4,955	$15,712	$ 13,210
Preferred stock dividends	465	503	1,328	1,321
Net income applicable to common shareholders	$5,122	$ 4,452	$14,384	$ 11,889
Per common share information				
Earnings	$0.50	$ 0.43	$1.42	$ 1.15
Diluted earnings	0.48	0.41	1.35	1.10
Dividends paid	0.12	0.075	0.27	0.175
Average common shares issued and outstanding (in thousands)	10,197,891	10,250,124	10,103,386	10,312,878
Average diluted common shares issued and outstanding (in thousands)	10,725,482	11,000,473	10,820,425	11,046,807

See accompanying Notes to Consolidated Financial Statements.

Bank of America Corporation and Subsidiaries

Consolidated Statement of Comprehensive Income

	Three Months Ended September 30		Nine Months Ended September 30	
(Dollars in millions)	2017	2016	2017	2016
Net income	$5,587	$4,955	$15,712	$13,210
Other comprehensive income (loss), net-of-tax:				
Net change in debt and marketable equity securities	462	208	931	3,319
Net change in debit valuation adjustments	(80)	(65)	(149)	49
Net change in derivatives	24	127	156	277
Employee benefit plan adjustments	26	6	80	29
Net change in foreign currency translation adjustments	5	(8)	102	(17)
Other comprehensive income	437	268	1,120	3,657
Comprehensive income	$6,024	$5,223	$16,832	$16,867

See accompanying Notes to Consolidated Financial Statements.

Bank of America Corporation and Subsidiaries

Consolidated Balance Sheet

(Dollars in millions)	September 30 2017	December 31 2016
Assets		
Cash and due from banks	$30,819	$30,719
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	141,562	117,019
Cash and cash equivalents	172,381	147,738
Time deposits placed and other short-term investments	9,493	9,861
Federal funds sold and securities borrowed or purchased under agreements to resell (includes $56,780 and $49,750 measured at fair value)	217,214	198,224
Trading account assets (includes $119,458 and $106,057 pledged as collateral)	210,319	180,209
Derivative assets	38,384	42,512
Debt securities:		
Carried at fair value (includes $32,146 and $29,804 pledged as collateral)	316,864	313,660
Held-to-maturity, at cost (fair value – $121,185 and $115,285; $5,043 and $8,233 pledged as collateral)	122,345	117,071
Total debt securities	439,209	430,731
Loans and leases (includes $6,285 and $7,085 measured at fair value and $36,362 and $31,805 pledged as collateral)	927,117	906,683
Allowance for loan and lease losses	(10,693)	(11,237)
Loans and leases, net of allowance	916,424	895,446
Premises and equipment, net	8,971	9,139
Mortgage servicing rights	2,407	2,747
Goodwill	68,968	68,969
Intangible assets	2,459	2,922
Loans held-for-sale (includes $3,128 and $4,026 measured at fair value)	13,243	9,066
Customer and other receivables (includes $230 measured at fair value at September 30, 2017)	55,855	58,759
Assets of business held for sale (includes $619 measured at fair value at December 31, 2016)	—	10,670
Other assets (includes $19,341 and $13,802 measured at fair value)	128,569	120,709
Total assets	$2,283,896	$2,187,702

Assets of consolidated variable interest entities included in total assets above (isolated to settle the liabilities of the variable interest entities)		
Trading account assets	$5,142	$5,773
Loans and leases	50,022	56,001
Allowance for loan and lease losses	(1,023)	(1,032)
Loans and leases, net of allowance	48,999	54,969
Loans held-for-sale	66	188
All other assets	662	1,596
Total assets of consolidated variable interest entities	$54,869	$62,526

See accompanying Notes to Consolidated Financial Statements.

Bank of America Corporation and Subsidiaries

Consolidated Balance Sheet (continued)

(Dollars in millions)	September 30 2017	December 31 2016
Liabilities		
Deposits in U.S. offices:		
Noninterest-bearing	$429,861	$438,125
Interest-bearing (includes $468 and $731 measured at fair value)	776,756	750,891
Deposits in non-U.S. offices:		
Noninterest-bearing	14,126	12,039
Interest-bearing	63,674	59,879
Total deposits	1,284,417	1,260,934
Federal funds purchased and securities loaned or sold under agreements to repurchase (includes $38,852 and $35,766 measured at fair value)	189,790	170,291
Trading account liabilities	86,434	63,031
Derivative liabilities	31,781	39,480
Short-term borrowings (includes $1,904 and $2,024 measured at fair value)	32,679	23,944
Accrued expenses and other liabilities (includes $22,369 and $14,630 measured at fair value and $762 and $762 of reserve for unfunded lending commitments)	157,670	146,359
Long-term debt (includes $29,897 and $30,037 measured at fair value)	228,666	216,823
Total liabilities	2,011,437	1,920,862
Commitments and contingencies (Note 6 – Securitizations and Other Variable Interest Entities, Note 7 – Representations and Warranties Obligations and Corporate Guarantees and Note 10 – Commitments and Contingencies)		
Shareholders’ equity		
Preferred stock, $0.01 par value; authorized – 100,000,000 shares; issued and outstanding – 3,837,683 and 3,887,329 shares	22,323	25,220
Common stock and additional paid-in capital, $0.01 par value; authorized – 12,800,000,000 shares; issued and outstanding – 10,457,473,674 and 10,052,625,604 shares	142,818	147,038
Retained earnings	113,486	101,870
Accumulated other comprehensive income (loss)	(6,168)	(7,288)
Total shareholders’ equity	272,459	266,840
Total liabilities and shareholders’ equity	$2,283,896	$2,187,702
Liabilities of consolidated variable interest entities included in total liabilities above		
Short-term borrowings	$122	$348
Long-term debt (includes $9,398 and $10,417 of non-recourse debt)	9,457	10,646
All other liabilities (includes $52 and $38 of non-recourse liabilities)	54	41
Total liabilities of consolidated variable interest entities	$9,633	$11,035

See accompanying Notes to Consolidated Financial Statements.

Bank of America Corporation and Subsidiaries

Consolidated Statement of Changes in Shareholders' Equity

(Dollars in millions, shares in thousands)	Preferred Stock	Common Stock and Additional Paid-in Capital Shares	Common Stock and Additional Paid-in Capital Amount	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
Balance, December 31, 2015	$22,273	10,380,265	$151,042	$88,219	$ (5,358)	$ 256,176
Net income				13,210		13,210
Net change in debt and marketable equity securities					3,319	3,319
Net change in debit valuation adjustments					49	49
Net change in derivatives					277	277
Employee benefit plan adjustments					29	29
Net change in foreign currency translation adjustments					(17)	(17)
Dividends declared:						
Common				(1,805)		(1,805)
Preferred				(1,321)		(1,321)
Issuance of preferred stock	2,947					2,947
Common stock issued under employee plans, net, and related tax effects		5,082	1,001			1,001
Common stock repurchased		(261,502)	(3,782)			(3,782)
Balance, September 30, 2016	$25,220	10,123,845	$148,261	$98,303	$ (1,701)	$ 270,083
Balance, December 31, 2016	$25,220	10,052,626	$147,038	$101,870	$ (7,288)	$ 266,840
Net income				15,712		15,712
Net change in debt and marketable equity securities					931	931
Net change in debit valuation adjustments					(149)	(149)
Net change in derivatives					156	156
Employee benefit plan adjustments					80	80
Net change in foreign currency translation adjustments					102	102
Dividends declared:						
Common				(2,768)		(2,768)
Preferred				(1,292)		(1,292)
Common stock issued in connection with exercise of warrants and exchange of preferred stock	(2,897)	700,000	2,933	(36)		—
Common stock issued under employee plans, net and other		39,496	792			792
Common stock repurchased		(334,648)	(7,945)			(7,945)
Balance, September 30, 2017	$22,323	10,457,474	$142,818	$113,486	$ (6,168)	$ 272,459

See accompanying Notes to Consolidated Financial Statements.

Bank of America Corporation and Subsidiaries

Consolidated Statement of Cash Flows

	Nine Months Ended September 30	
(Dollars in millions)	2017	2016
Operating activities		
Net income	$15,712	$13,210
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	2,395	2,823
Gains on sales of debt securities	(278)	(490)
Depreciation and premises improvements amortization	1,115	1,138
Amortization of intangibles	473	554
Net amortization of premium/discount on debt securities	1,647	2,203
Deferred income taxes	5,043	5,072
Stock-based compensation	1,465	1,087
Loans held-for-sale:		
Originations and purchases	(31,404)	(24,154)
Proceeds from sales and paydowns of loans originally classified as held-for-sale	27,006	21,068
Net change in:		
Trading and derivative instruments	(11,844)	9,068
Other assets	(9,809)	(612)
Accrued expenses and other liabilities	11,201	(4,845)
Other operating activities, net	4,729	595
Net cash provided by operating activities	17,451	26,717
Investing activities		
Net change in:		
Time deposits placed and other short-term investments	368	(762)
Federal funds sold and securities borrowed or purchased under agreements to resell	(18,990)	(26,328)
Debt securities carried at fair value:		
Proceeds from sales	64,597	67,681
Proceeds from paydowns and maturities	71,628	81,404
Purchases	(134,915)	(156,537)
Held-to-maturity debt securities:		
Proceeds from paydowns and maturities	12,194	12,827
Purchases	(17,850)	(29,085)
Loans and leases:		
Proceeds from sales	8,643	14,870
Purchases	(4,511)	(9,347)
Other changes in loans and leases, net	(29,654)	(17,832)
Other investing activities, net	8,451	109
Net cash used in investing activities	(40,039)	(63,000)
Financing activities		
Net change in:		
Deposits	23,483	35,636
Federal funds purchased and securities loaned or sold under agreements to repurchase	19,987	3,904
Short-term borrowings	8,583	(1,069)
Long-term debt:		
Proceeds from issuance	50,702	24,681

Retirement of long-term debt	(44,724)	(41,458)
Preferred stock: Proceeds from issuance	—	2,947
Common stock repurchased	(7,945)	(3,782)
Cash dividends paid	(4,124)	(3,031)
Other financing activities, net	(609)	(58)
Net cash provided by financing activities	45,353	17,770
Effect of exchange rate changes on cash and cash equivalents	1,878	2,594
Net increase (decrease) in cash and cash equivalents	24,643	(15,919)
Cash and cash equivalents at January 1	147,738	159,353
Cash and cash equivalents at September 30	$172,381	$143,434

See accompanying Notes to Consolidated Financial Statements.

Bank of America Corporation and Subsidiaries
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 (GAAP) requires management to make estimates and assumptions that affect reported amounts and disclosures. Realized results could 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 2016 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.
On June 1, 2017, the Corporation completed the sale of its non-U.S. consumer credit card business to a third party. The Corporation has indemnified the purchaser for substantially all payment protection insurance (PPI) exposure above reserves assumed by the purchaser. The impact of the sale was an after-tax gain of $103 million, and is presented in the Consolidated Statement of Income as other income of $793 million and an income tax expense of $690 million. The income tax expense was related to gains on the derivatives used to hedge the currency risk of the net investment. Total cash proceeds from the sale were $10.9 billion. The assets of the business sold primarily included consumer credit card receivables of $9.8 billion and $9.2 billion

at June 1, 2017 and December 31, 2016 and goodwill of $775 million at both of those period ends. This business was included in All Other.
New Accounting Pronouncements
Accounting for Financial Instruments -- Credit Losses
The Financial Accounting Standards Board (FASB) issued a new accounting standard effective on January 1, 2020, with early adoption permitted on January 1, 2019, that will require the earlier recognition of credit losses on loans and other financial instruments based on an expected loss model, replacing the incurred loss model that is currently in use. The standard also requires expanded credit quality disclosures, including credit quality indicators disaggregated by vintage. The Corporation is in the process of identifying and implementing required changes to loan loss estimation models and processes and evaluating the impact of this new accounting standard, which at the date of adoption is expected to increase the allowance for credit losses with a resulting negative adjustment to retained earnings.
Hedge Accounting
The FASB issued a new accounting standard effective on January 1, 2019, with early adoption permitted, that makes targeted improvements to simplify the application of hedge accounting guidance. The Corporation is evaluating the timing of adoption. The ongoing implementation efforts include identifying current hedge strategies and systems and

processes that will need to be modified to comply with the standard, which could impact the timing of adoption. The Corporation does not expect the new accounting standard to have a material impact on its consolidated financial position, results of operations or disclosures in the Notes to the Consolidated Financial Statements.

Lease Accounting

The FASB issued a new accounting standard effective on January 1, 2019 that requires substantially all leases to be recorded as assets and liabilities on the balance sheet. This new accounting standard uses a modified retrospective transition that will be applied to all prior periods presented. The Corporation is in the process of reviewing its existing lease portfolios, as well as other service contracts for embedded leases, to evaluate the impact of the new accounting standard on the financial statements, as well as the impact to regulatory capital and risk-weighted assets. The effect of the adoption will depend on its lease portfolio at the time of transition; however, the Corporation does not expect the new accounting standard to have a material impact on its consolidated financial position, results of operations or disclosures in the Notes to the Consolidated Financial Statements.

Recognition and Measurement of Financial Assets and Financial Liabilities

The FASB issued a new accounting standard effective on January 1, 2018, with early adoption permitted for the provisions related to debit valuation adjustments (DVA), on recognition and measurement of financial instruments, including certain equity investments and financial liabilities recorded at fair value under the fair value option. In 2015, the Corporation early adopted, retrospective to January 1, 2015, the provisions of this new accounting standard related to DVA on financial liabilities accounted for under the fair value option. The Corporation does

not expect the remaining provisions of this new accounting standard to have a material impact on its consolidated financial position, results of operations or disclosures in the Notes to the Consolidated Financial Statements.

Revenue Recognition

The FASB issued a new accounting standard effective on January 1, 2018 for recognizing revenue from contracts with customers. The customer contracts within the scope of the new standard have been identified, and the Corporation's current evaluation indicates that the new standard will not impact the timing or measurement of its revenue recognition. The Corporation continues to evaluate the presentation of certain costs as either operating expenses or net against noninterest income; consequently, there may be an insignificant change in the Consolidated Statement of Income for the presentation of these costs. Overall, the Corporation does not expect the new accounting standard to have a material impact on its consolidated financial position, results of operations or disclosures in the Notes to the Consolidated Financial Statements.

NOTE 2 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 2016 Annual Report on Form 10-K. The following tables present derivative instruments included on the Consolidated Balance Sheet in derivative assets and liabilities at September 30, 2017 and December 31, 2016. 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 the cash collateral received or paid.

		September 30, 2017					
		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 [2]	$ 18,602.5	$179.5	$ 5.1	$184.6	$176.7	$ 1.3	$178.0
Futures and forwards [2]	5,957.2	0.9	—	0.9	0.8	—	0.8
Written options	1,467.4	—	—	—	36.3	—	36.3
Purchased options	1,390.7	38.5	—	38.5	—	—	—
Foreign exchange contracts							
Swaps	2,011.9	36.6	2.5	39.1	37.0	3.1	40.1
Spot, futures and forwards	4,313.6	46.6	0.9	47.5	46.9	0.8	47.7
Written options	367.3	—	—	—	5.7	—	5.7
Purchased options	335.7	5.2	—	5.2	—	—	—
Equity contracts							
Swaps	236.2	4.6	—	4.6	4.6	—	4.6
Futures and forwards	100.9	1.9	—	1.9	1.2	—	1.2
Written options	524.9	—	—	—	25.1	—	25.1
Purchased options	467.0	25.2	—	25.2	—	—	—
Commodity contracts							

Swaps	47.6