

# Bank of America 4Q19 Financial Results

January 15, 2020

# Full Year 2019 Financial Results

Summary Income Statement (\$B, except per share data)	FY19		FY18	FY19 vs. FY18	FY19 ex-3Q19 JV vs. FY18 <sup>1</sup>
	Reported	Ex- 3Q19 JV impairment <sup>1</sup>	Reported	% Inc / (Dec)	% Inc / (Dec)
Total revenue, net of interest expense	\$91.2	\$91.2	\$91.0	0 %	0 %
Noninterest expense	54.9	52.8	53.2	3	(1)
Provision for credit losses	3.6	3.6	3.3	9	9
Pretax income	32.8	34.8	34.6	(5)	1
Income tax expense	5.3	5.7	6.4	(17)	(11)
Net income	\$27.4	\$29.1	\$28.1	(3)	3
Diluted earnings per share	\$2.75	\$2.93	\$2.61	5	12
Average diluted common shares (in millions)	9,443	9,443	10,237	(8)	(8)

## Return Metrics and Efficiency Ratio

Return on average assets	1.14 %	1.21 %	1.21 %	(7) bps	0 bps
Return on average common shareholders' equity	10.6	11.3	11.0	(42)	24
Return on average tangible common shareholders' equity <sup>2</sup>	14.9	15.8	15.5	(69)	22
Efficiency ratio	60	58	58	177	(50)

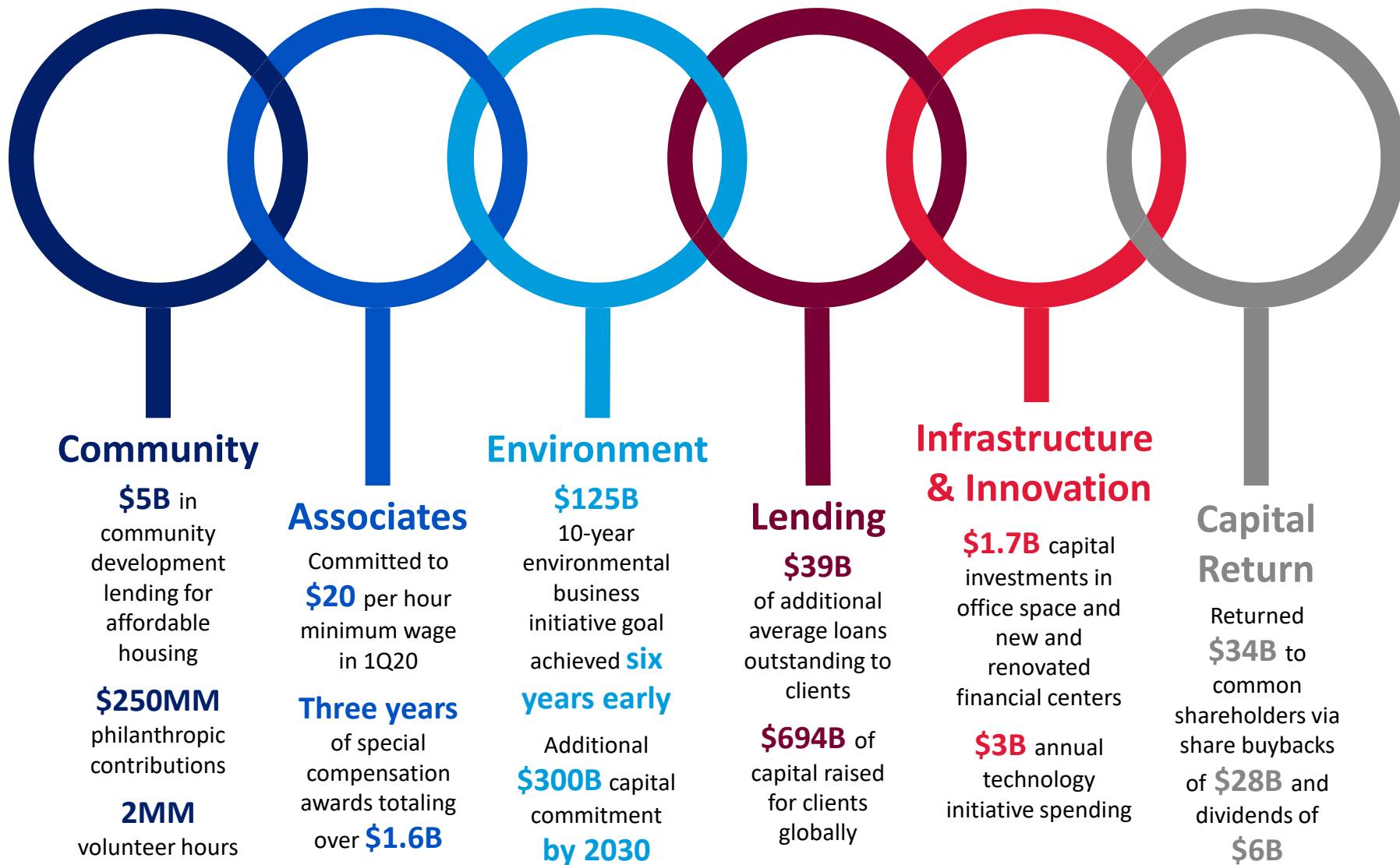
Note: Amounts may not total due to rounding.

<sup>1</sup> As previously reported, 3Q19 included a non-cash, pretax impairment charge of \$2.1B related to the notice of termination of the merchant services joint venture at the conclusion of its current term, which reduced FY19 results by \$0.18 per diluted common share. Amounts in this column represent non-GAAP financial measures. For a reconciliation to GAAP of the presented financial metrics, see note A on slide 27. For important presentation information, see slide 30.

<sup>2</sup> Represents a non-GAAP financial measure. For important presentation information, see slide 30.

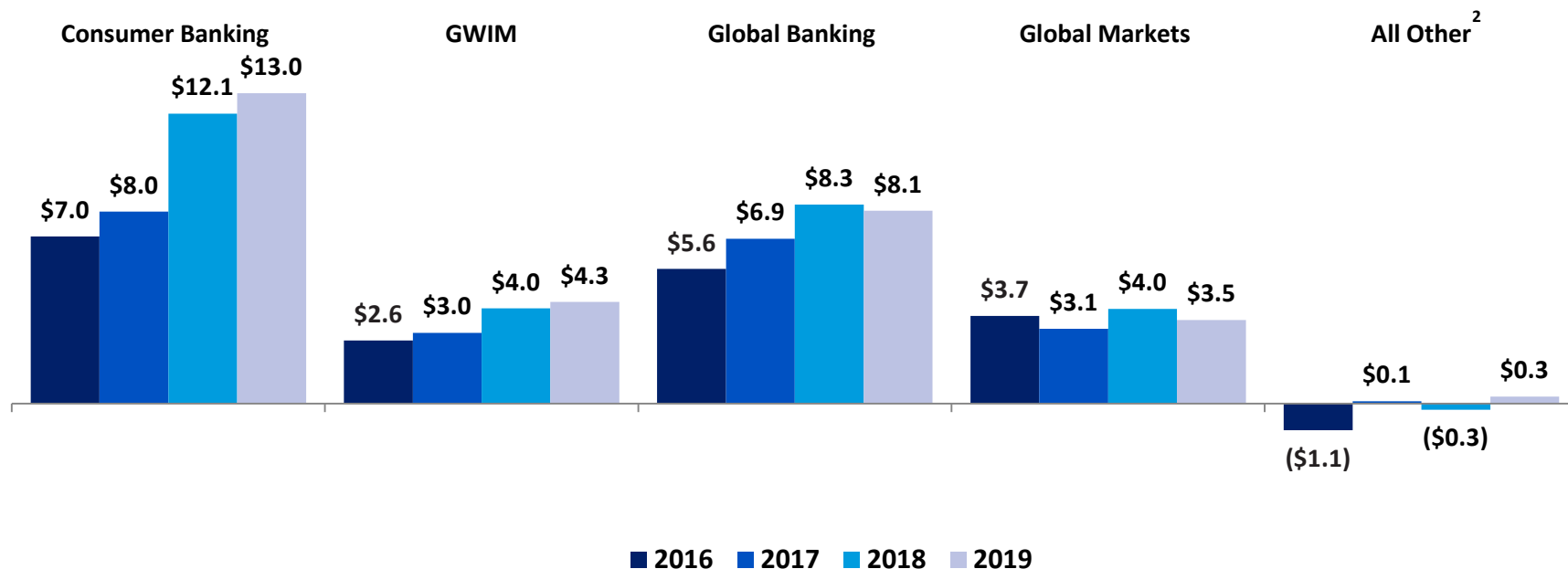


# Capital Deployment Highlights in 2019



# Full Year Business Segment Results <sup>1</sup>

## Net Income (Loss) (\$B)



FY 2019	Consumer Banking	GWIM	Global Banking	Global Markets
ROAAC <sup>3</sup>	35%	29%	20%	10%
Efficiency ratio	46%	71%	44%	69%
Operating leverage	3%	2%	(1%)	(2%)



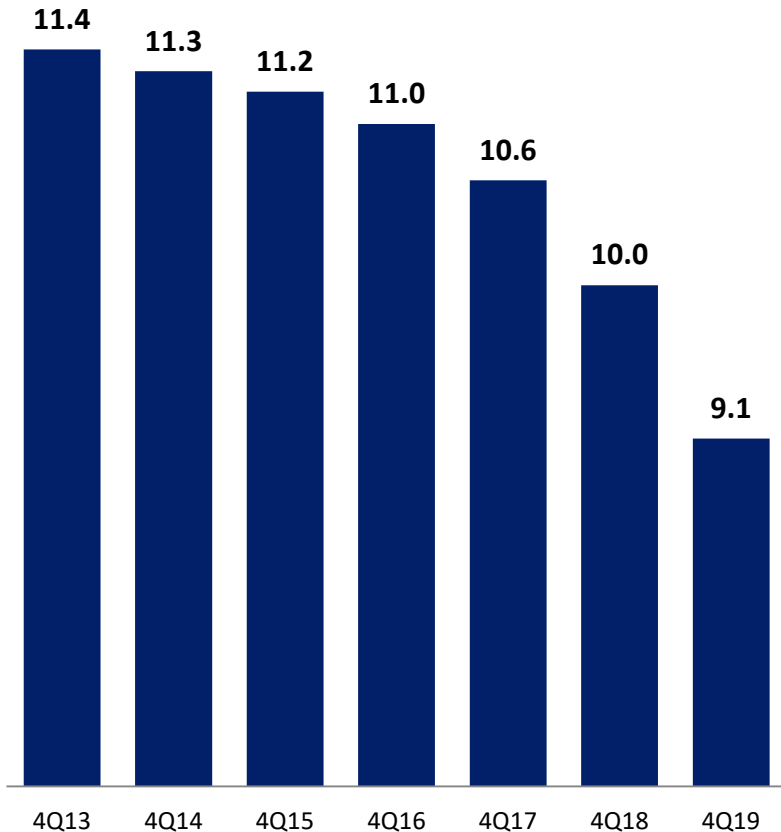
<sup>1</sup> All business segments and All Other are presented on a fully-taxable equivalent (FTE) basis throughout this presentation.

<sup>2</sup> Amounts for 2019 and 2017 represent non-GAAP financial measures. FY 2019 for All Other adjusted to exclude \$1.7B for the impairment charge related to the notice of termination of the merchant services joint venture at the conclusion of its current term. See note A on slide 27. FY 2017 for All Other adjusted to exclude the \$2.9B charge for the 2017 enactment of the Tax Cuts and Jobs Act (Tax Act). Reported net loss for All Other was \$1.4B and \$2.8B for FY 2019 and FY 2017. For important presentation information, see slide 30.

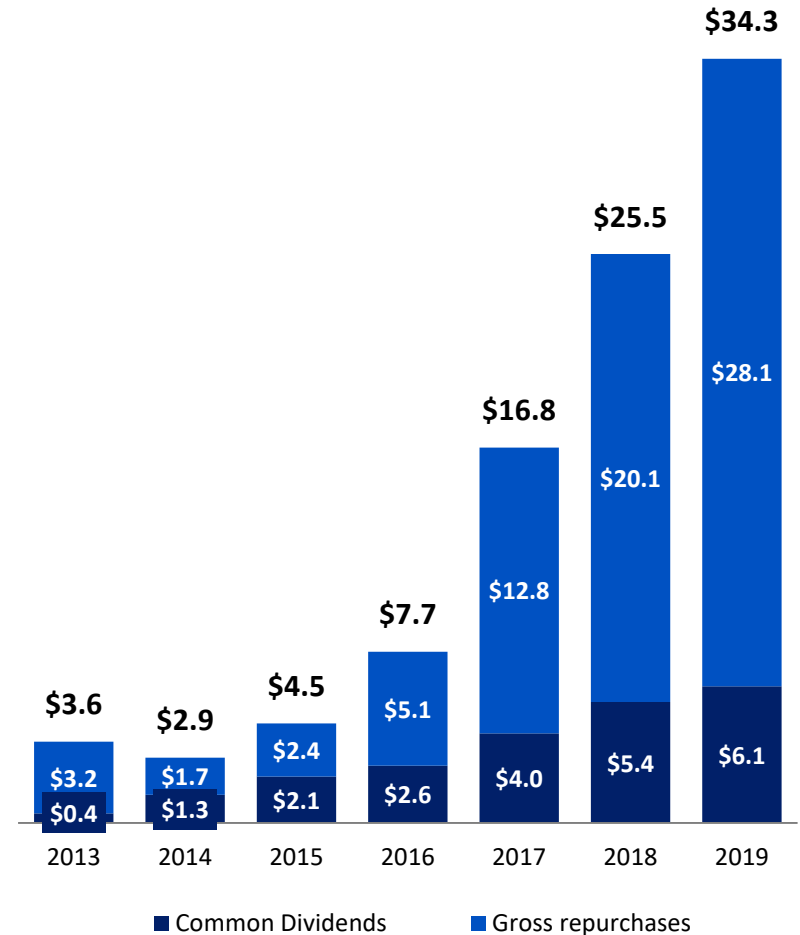
<sup>3</sup> ROAAC defined as return on average allocated capital.

# Increased Capital Returned to Shareholders

Average Diluted Shares Outstanding (B)



Common Dividends and Share Repurchases (\$B)



Note: Amounts may not total due to rounding.

# 4Q19 Financial Results

<b>Summary Income Statement</b> <b>(\$B, except per share data)</b>	<b>4Q19</b>	<b>4Q18</b>	<b>% Inc / (Dec)</b>
Total revenue, net of interest expense	<b>\$22.3</b>	\$22.7	(1) %
Noninterest expense	<b>13.2</b>	13.1	1
Provision for credit losses	<b>0.9</b>	0.9	4
Pretax income	<b>8.2</b>	8.7	(6)
Income tax expense	<b>1.2</b>	1.4	(17)
Net income	<b>\$7.0</b>	\$7.3	(4)
Diluted earnings per share	<b>\$0.74</b>	\$0.70	6
Average diluted common shares (in millions)	<b>9,079</b>	9,996	(9)

## **Return Metrics and Efficiency Ratio**

Return on average assets	<b>1.13</b> %	1.24 %
Return on average common shareholders' equity	<b>11.0</b>	11.6
Return on average tangible common shareholders' equity <sup>1</sup>	<b>15.4</b>	16.3
Efficiency ratio	<b>59</b>	58

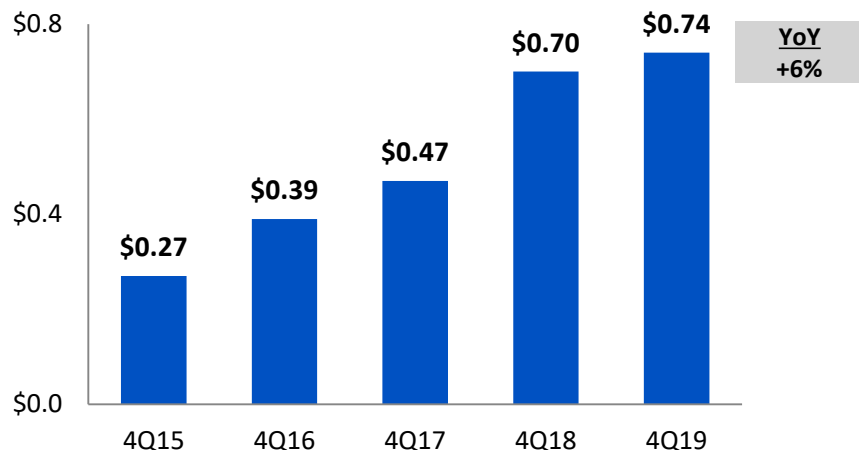
Note: Amounts may not total due to rounding.

<sup>1</sup> Represents a non-GAAP financial measure. For important presentation information, see slide 30.

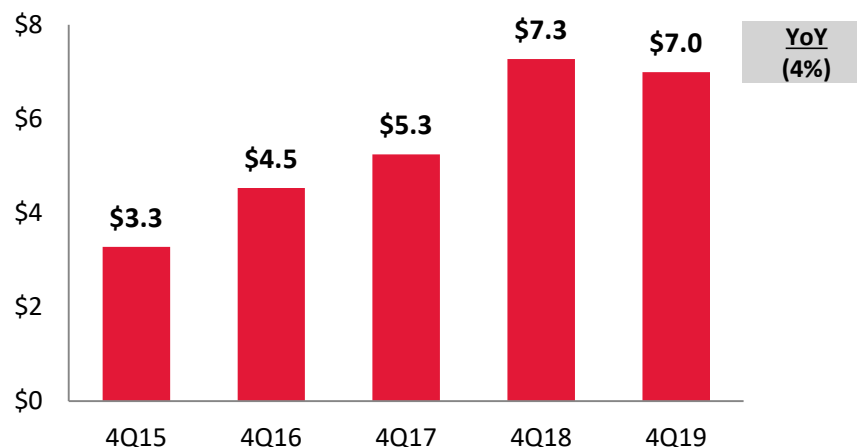


# Continued Progress in Driving Financial Performance <sup>1</sup>

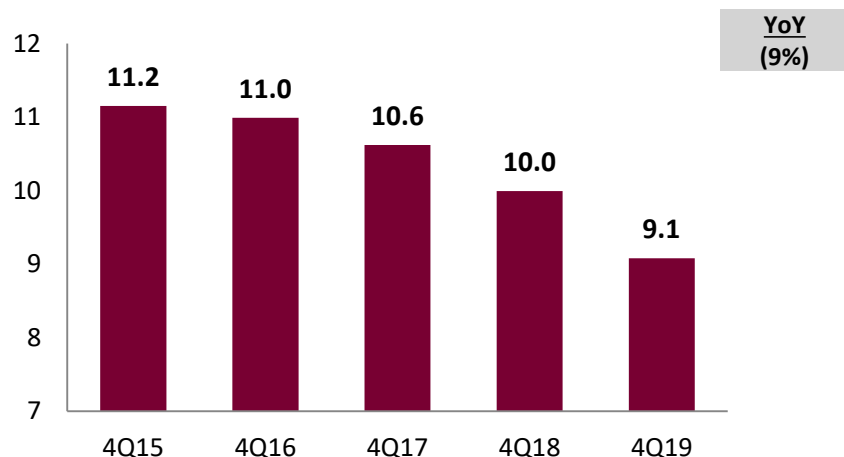
## Diluted Earnings per Share



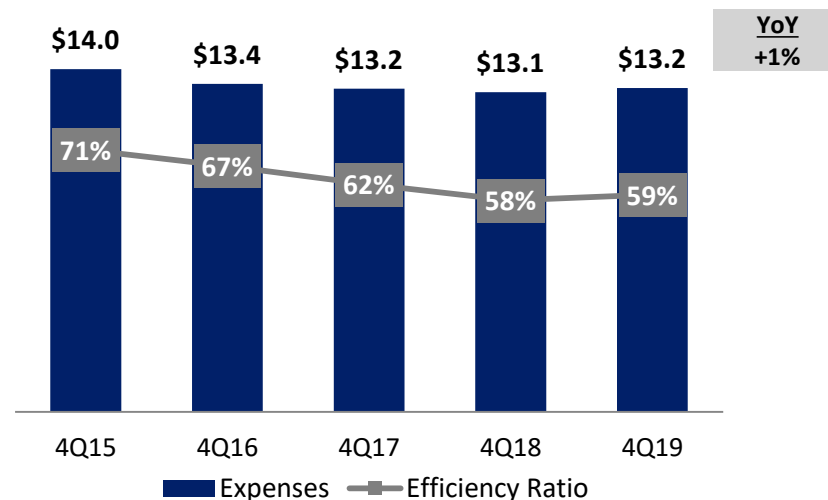
## Net Income (\$B)



## Average Diluted Shares Outstanding (B)



## Expenses (\$B) and Efficiency Ratio



<sup>1</sup>4Q17 results adjusted to exclude the impact of the Tax Act, which represent non-GAAP financial measures. The Tax Act reduced 2017 net income by \$2.9B, or \$0.27 per diluted common share, which included a \$0.9B pretax charge in other noninterest income, predominantly related to the revaluation of certain tax-advantaged energy investments, as well as \$1.9B of tax expense principally associated with the revaluation of certain deferred tax assets and liabilities. Reported 4Q17 net income, diluted earnings per share and efficiency ratio were \$2.4B, \$0.20 and 65%, respectively. For important presentation information, see slide 30.

# Balance Sheet, Liquidity and Capital

(EOP basis unless noted)

<b>Balance Sheet (\$B)</b>	<b>4Q19</b>	<b>3Q19</b>	<b>4Q18</b>
Total assets	\$2,434.1	\$2,426.3	\$2,354.5
Total loans and leases	983.4	972.9	946.9
Total loans and leases in business segments <sup>1</sup>	946.3	933.2	898.8
Total debt securities	472.2	444.6	441.8
<b>Funding &amp; Liquidity (\$B)</b>			
Total deposits	\$1,434.8	\$1,392.8	\$1,381.5
Long-term debt	240.9	243.4	229.4
Global Liquidity Sources (average) <sup>2</sup>	576	552	544
<b>Equity (\$B)</b>			
Common shareholders' equity	\$241.4	\$244.8	\$243.0
Common equity ratio	9.9 %	10.1 %	10.3 %
Tangible common shareholders' equity <sup>3</sup>	\$171.5	\$174.9	\$173.1
Tangible common equity ratio <sup>3</sup>	7.3 %	7.4 %	7.6 %
<b>Per Share Data</b>			
Book value per common share	\$27.32	\$26.96	\$25.13
Tangible book value per common share <sup>3</sup>	19.41	19.26	17.91
Common shares outstanding (in billions)	8.84	9.08	9.67

<b>Basel 3 Capital (\$B)<sup>4</sup></b>	<b>4Q19</b>	<b>3Q19</b>	<b>4Q18</b>
Common equity tier 1 capital (CET1)	\$166.8	\$169.2	\$167.3
<b>Standardized approach</b>			
Risk-weighted assets	\$1,495	\$1,484	\$1,437
CET1 ratio	11.2 %	11.4 %	11.6 %
<b>Advanced approaches</b>			
Risk-weighted assets	\$1,447	\$1,440	\$1,409
CET1 ratio	11.5 %	11.7 %	11.9 %
<b>Supplementary leverage</b>			
Supplementary leverage ratio (SLR)	6.4 %	6.6 %	6.8 %

- CET1 ratio of 11.2%<sup>4</sup> declined 25 bps from 3Q19
  - CET1 capital of \$166.8B, down \$2.4B
  - Standardized RWA of \$1,495B increased \$11B
- Capital returned to shareholders
  - Repurchased \$7.7B of common shares and paid \$1.6B in common dividends in 4Q19
  - Common shares outstanding down 9% from 4Q18 to 8.8B
- Book value per share increased 9% from 4Q18 to \$27.32
- \$576B of average Global Liquidity Sources<sup>2</sup>

<sup>1</sup> Excludes loans and leases in All Other.

<sup>2</sup> See note B on slide 27 for definition of Global Liquidity Sources.

<sup>3</sup> Represents a non-GAAP financial measure. For important presentation information, see slide 30.

<sup>4</sup> Regulatory capital metrics at December 31, 2019 are preliminary. The Company reports regulatory capital ratios under both the Standardized and Advanced approaches. The approach that yields the lower ratio is used to assess capital adequacy, which for CET1 is the Standardized approach for all reporting periods presented.

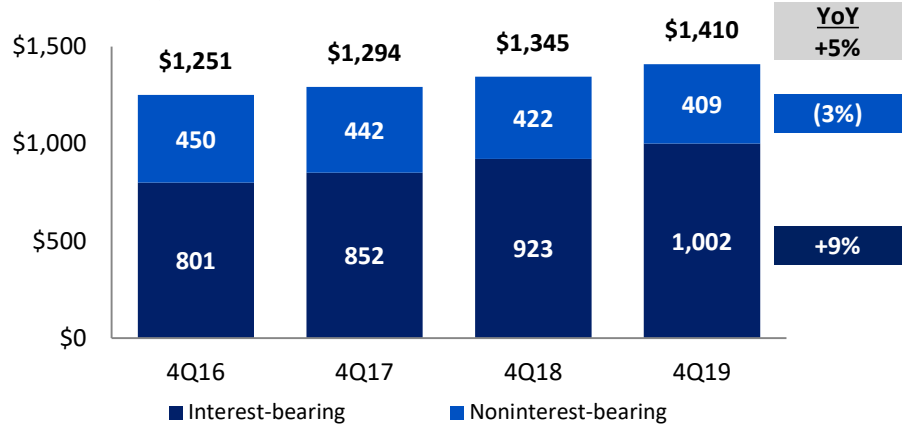




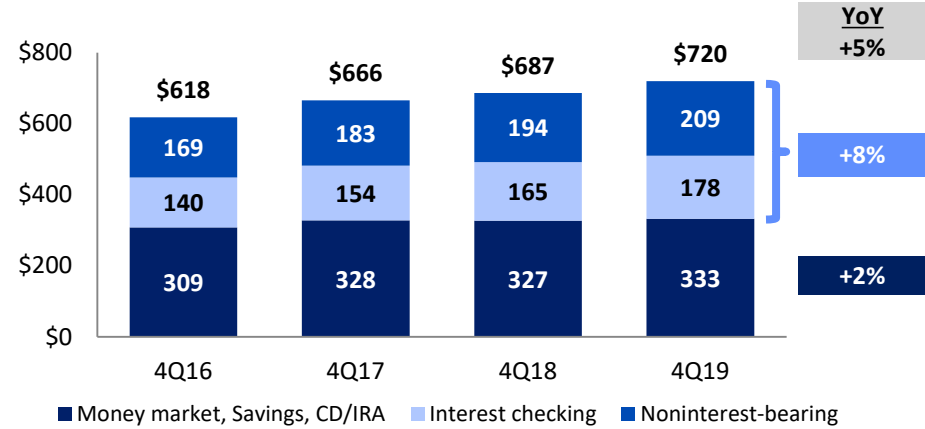
# Average Deposits

Bank of America Ranked #1 in U.S. Deposit Market Share <sup>1</sup>

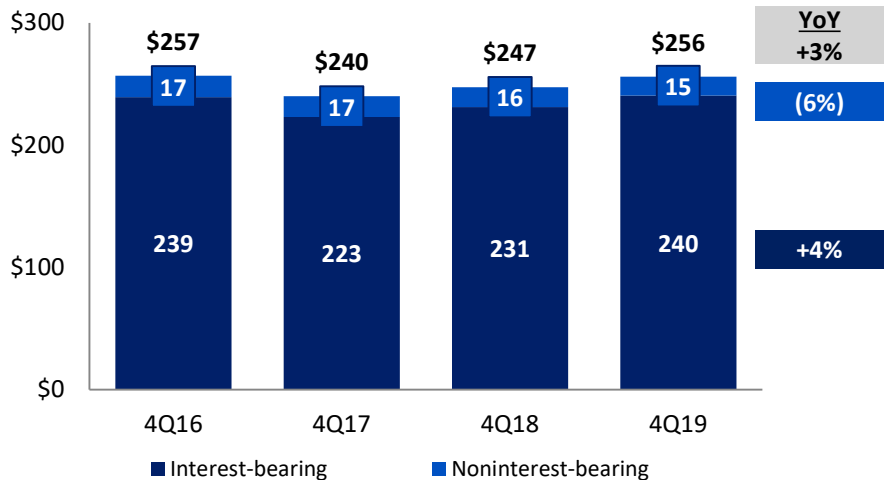
## Total Corporation (\$B)



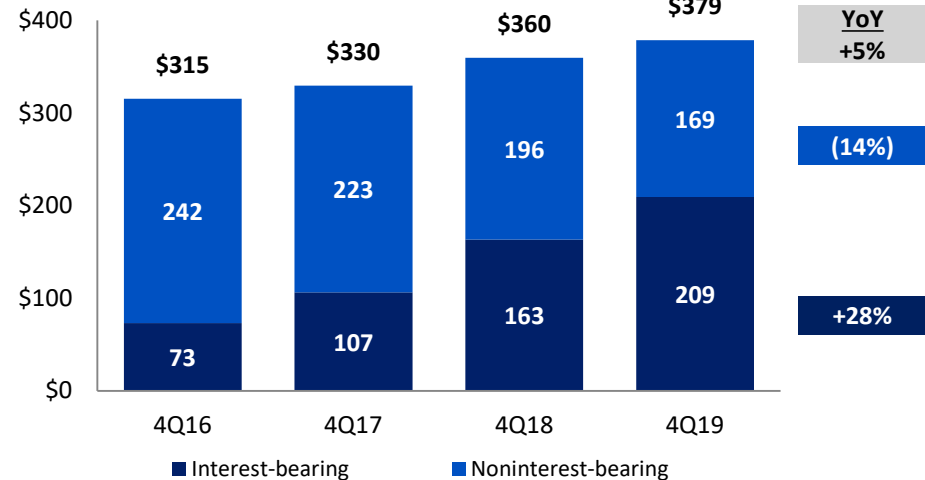
## Consumer Banking (\$B)



## GWIM (\$B)



## Global Banking (\$B)

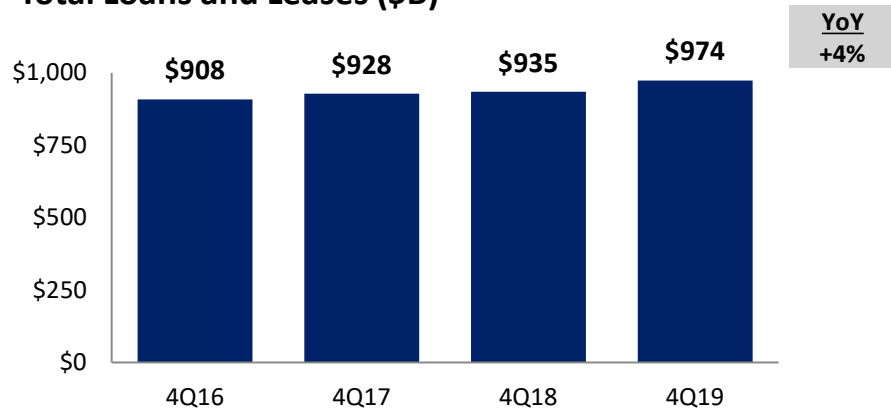


Note: Amounts may not total due to rounding. Total Corporation also includes Global Markets and All Other.

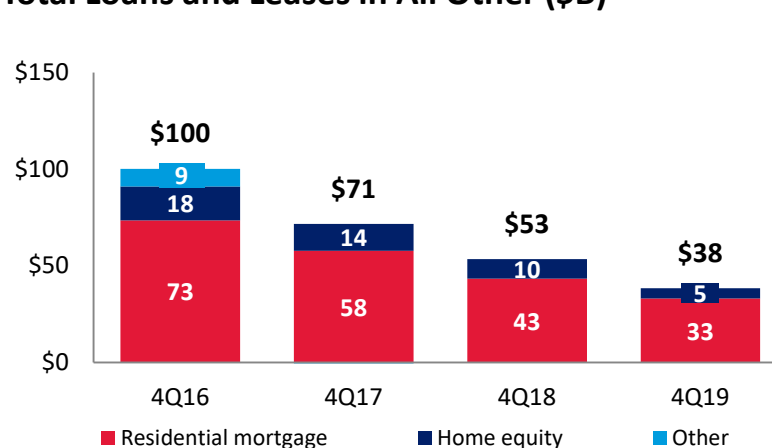
<sup>1</sup> Based on June 30, 2019 FDIC deposit data.

# Average Loans and Leases

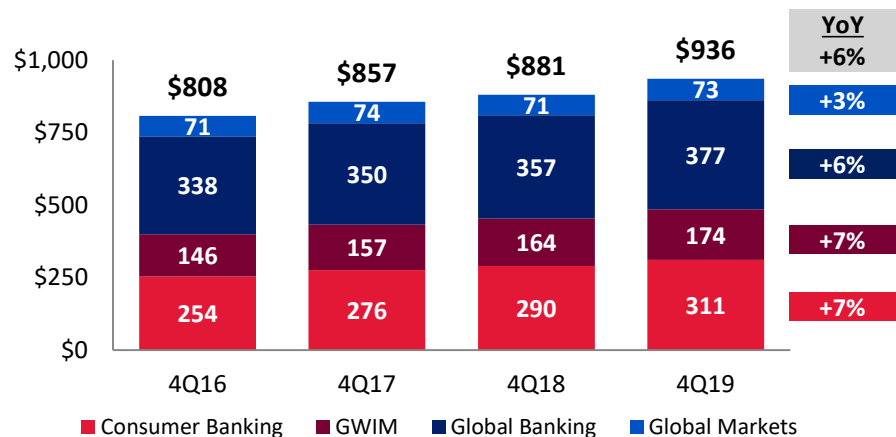
## Total Loans and Leases (\$B)



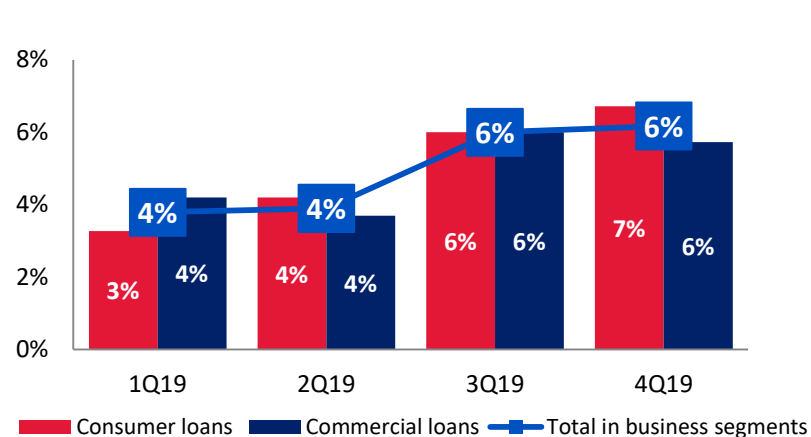
## Total Loans and Leases in All Other (\$B)



## Loans and Leases in Business Segments (\$B)



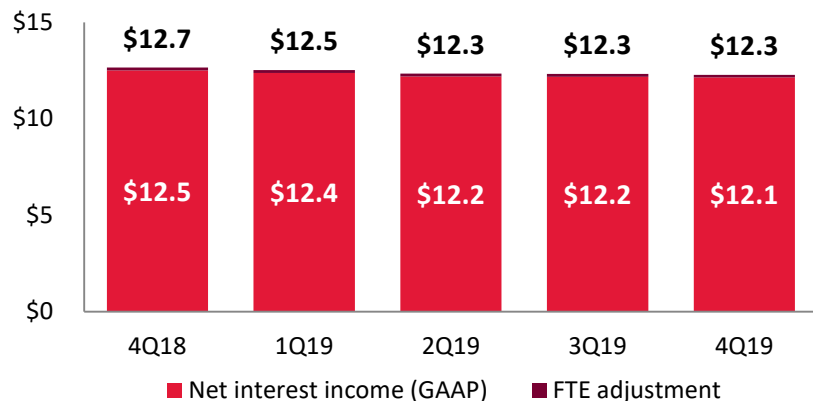
## Year-Over-Year Growth in Business Segments



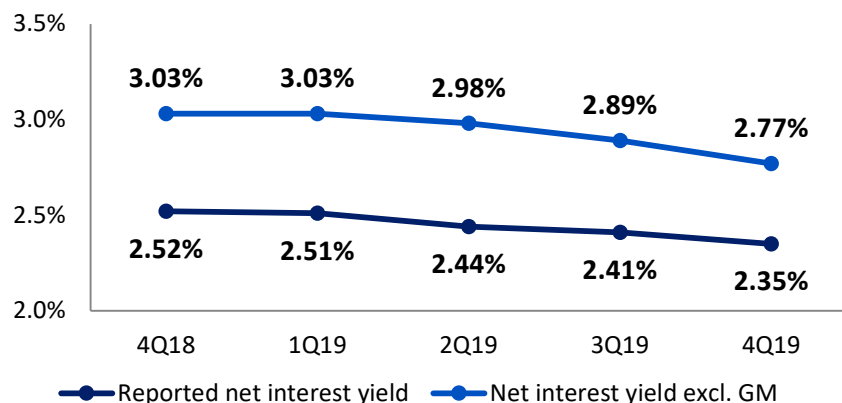
Note: Amounts may not total due to rounding.

# Net Interest Income

## Net Interest Income (FTE, \$B) <sup>1</sup>



## Net Interest Yield (FTE) <sup>1</sup>



- Net interest income of \$12.1B (\$12.3B FTE <sup>1</sup>)
  - Decreased \$0.4B, or 3%, from 4Q18, driven primarily by lower interest rates, partially offset by loan and deposit growth
  - Declined modestly from 3Q19, as lower asset yields were partially offset by lower funding costs as well as benefits of loan and deposit growth
- Net interest yield of 2.35% decreased 17 bps from 4Q18 and decreased 6 bps from 3Q19 <sup>1</sup>
  - Average rate paid on interest-bearing deposits declined 15 bps from 3Q19 to 0.61%
- Asset sensitivity position relatively unchanged compared to 3Q19

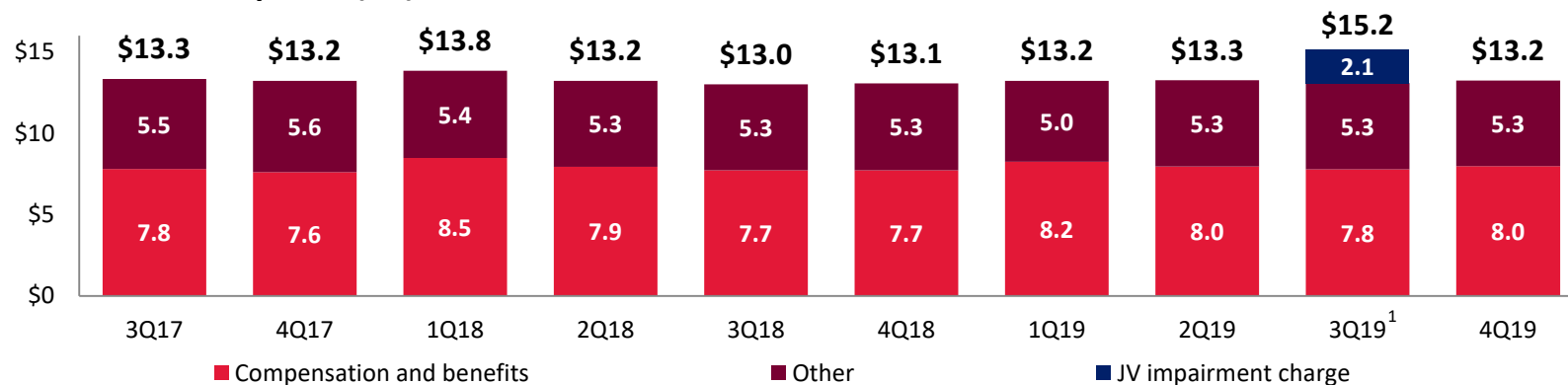


Notes: FTE stands for fully taxable-equivalent basis. GM stands for Global Markets.

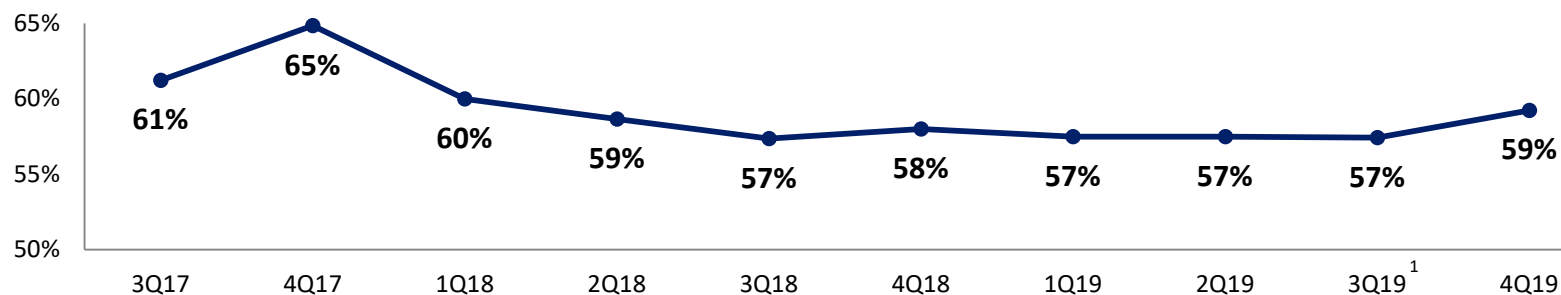
<sup>1</sup> Represent non-GAAP financial measures. Net interest yield adjusted to exclude Global Markets NII of \$1.1B, \$1.0B, \$0.8B, \$1.0B and \$0.9B and average earning assets of \$481.4B, \$476.9B, \$474.1B, \$472.4B and \$458.3B for 4Q19, 3Q19, 2Q19, 1Q19 and 4Q18, respectively. The Company believes the presentation of net interest yield excluding Global Markets provides investors with transparency of NII and net interest yield in core banking activities. For important presentation information, see slide 30.

# Expense and Efficiency

## Total Noninterest Expense (\$B)



## Efficiency Ratio



- Noninterest expense of \$13.2B increased \$0.2B from 4Q18, as investments across the franchise including in client-facing associates, employee compensation programs, technology, and real estate were partially offset by efficiency savings enabled by operational excellence work, lower FDIC costs and lower amortization of intangibles
- Noninterest expense declined \$1.9B from 3Q19, driven by absence of 3Q19 impairment charge of \$2.1B for notice of termination of the merchant services joint venture at the conclusion of its current term
- Compared to 4Q19, 1Q20 expenses expected to include approximately \$0.4B for seasonally elevated personnel costs

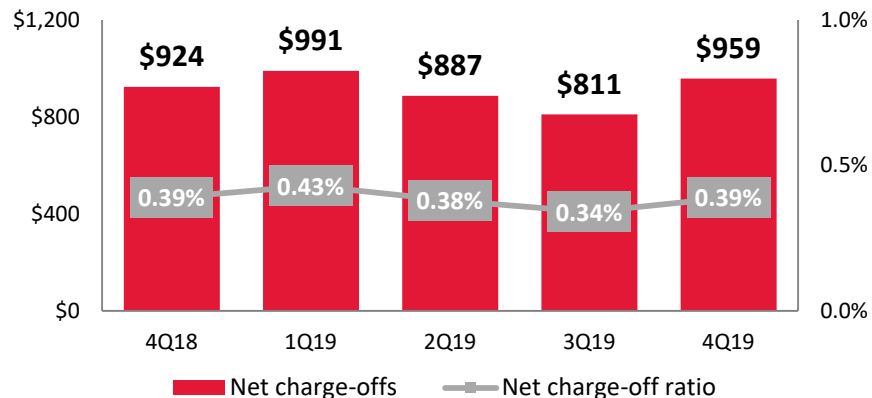


Note: Amounts may not total due to rounding.

<sup>1</sup> 3Q19 efficiency ratio is adjusted to exclude the 3Q19 impairment charge of \$2.1B for the notice of termination of the merchant services joint venture at the conclusion of its current term, which represents a non-GAAP financial measure. Reported 3Q19 efficiency ratio was 67%. See note A on slide 27 for reconciliations.

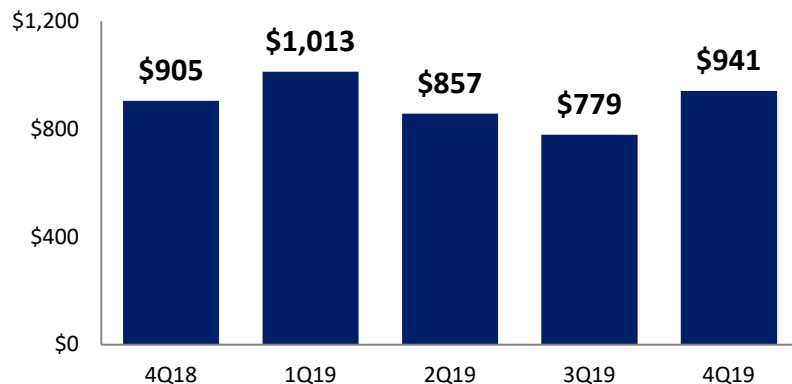
# Asset Quality

## Net Charge-offs (\$MM) <sup>1</sup>



3Q19 and 2Q19 included recoveries from the sale of previously charged-off non-core consumer real estate loans of \$198MM and \$118MM; NCO ratio of 0.42% and 0.43% excluding these sales; impact of sales on other periods presented was immaterial

## Provision for Credit Losses (\$MM)



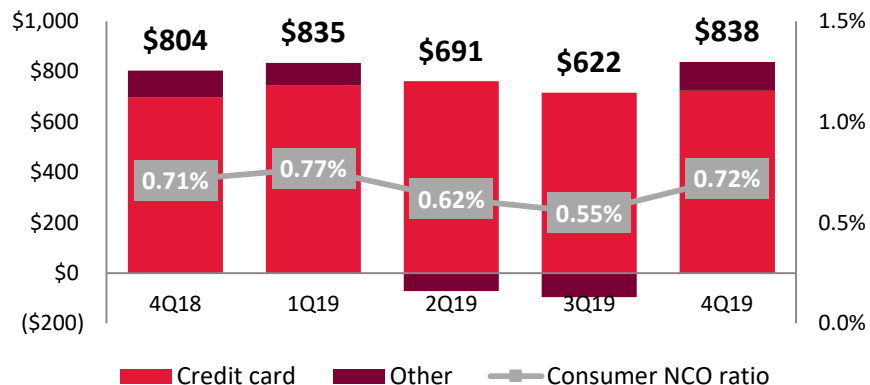
- Total net charge-offs of \$959MM
  - Net charge-offs were modestly down from 3Q19, excluding 3Q19 recoveries from the sale of previously charged-off non-core consumer real estate loans of \$198MM
- Net charge-off (NCO) ratio of 39 bps
  - Excluding the loan sales in 3Q19, net charge-off ratio decreased 3 bps
- Provision expense of \$941MM increased \$162MM from 3Q19, due primarily to loan sale recoveries in 3Q19
  - 4Q19 included a small reserve release of \$18MM, similar to 3Q19
- Allowance for loan and lease losses of \$9.4B represented 0.97% of total loans and leases <sup>1</sup>
- Nonperforming loans (NPLs) of \$3.6B were stable vs. 3Q19
  - As a percentage of loans and leases, NPL ratio remains near historic lows
  - 44% of consumer NPLs are contractually current
- Commercial reservable criticized utilized exposure of \$11.5B declined modestly from 3Q19, and reservable criticized ratio remains near historic lows



<sup>1</sup> Excludes loans measured at fair value.

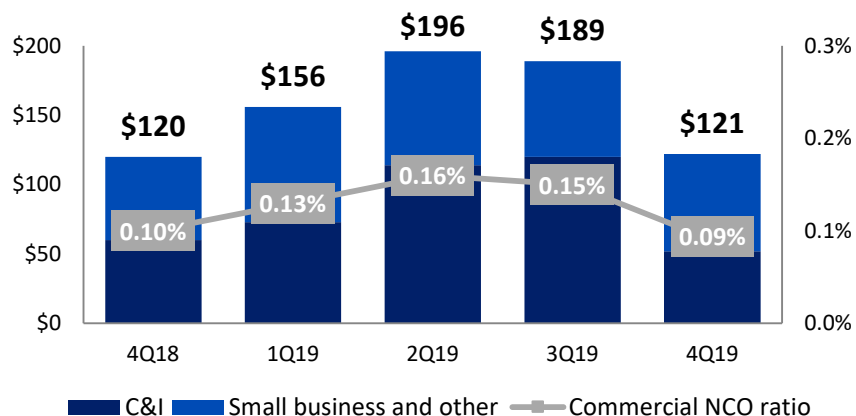
# Asset Quality – Consumer and Commercial Portfolios

## Consumer Net Charge-offs (\$MM)



Consumer Metrics (\$MM)	4Q19	3Q19	4Q18
Provision	\$798	\$564	\$734
Nonperforming loans and leases	2,053	2,189	3,842
% of loans and leases <sup>1</sup>	0.44 %	0.48 %	0.86 %
Consumer 30+ days performing past due	\$5,776	\$5,530	\$6,741
Fully-insured <sup>2</sup>	1,811	1,919	2,790
Non fully-insured	3,965	3,611	3,951
Allowance for loans and leases	4,542	4,576	4,802
% of loans and leases <sup>1</sup>	0.98 %	1.01 %	1.08 %
# times annualized NCOs	1.37 x	1.86 x	1.51 x

## Commercial Net Charge-offs (\$MM)



Commercial Metrics (\$MM)	4Q19	3Q19	4Q18
Provision	\$143	\$215	\$171
Reservable criticized utilized exposure	11,452	11,835	11,061
Nonperforming loans and leases	1,499	1,287	1,102
% of loans and leases <sup>1</sup>	0.29 %	0.25 %	0.22 %
Allowance for loans and leases	\$4,874	\$4,857	\$4,799
% of loans and leases <sup>1</sup>	0.96 %	0.95 %	0.97 %



<sup>1</sup> Excludes loans measured at fair value.

<sup>2</sup> Fully-insured loans are FHA-insured loans and other loans individually insured under long-term standby agreements.

# Consumer Banking

Summary Income Statement (\$MM)	4Q19	Inc / (Dec)	
		3Q19	4Q18
Total revenue, net of interest expense	\$9,514	(\$210)	(\$448)
Provision for credit losses	934	17	19
Noninterest expense	4,466	75	31
Pretax income	4,114	(302)	(498)
Income tax expense	1,008	(74)	(166)
Net income	\$3,106	(\$228)	(\$332)

Key Indicators (\$B)	4Q19	3Q19	4Q18
Average deposits	\$719.6	\$709.3	\$686.8
Rate paid on deposits	0.11 %	0.11 %	0.07 %
Cost of deposits <sup>1</sup>	1.51	1.50	1.55
Average loans and leases	\$311.0	\$303.8	\$289.9
Net charge-off ratio	1.18 %	1.18 %	1.22 %
Consumer investment assets <sup>2</sup>	\$240.1	\$223.2	\$185.9
Active mobile banking users (MM)	29.2	28.7	26.4
% Consumer sales through digital channels	29 %	26 %	27 %
Number of financial centers	4,300	4,302	4,341
Combined credit / debit purchase volumes <sup>3</sup>	\$167.2	\$162.0	\$158.1
Total consumer credit card risk-adjusted margin <sup>3</sup>	8.68 %	8.45 %	8.73 %
Return on average allocated capital	33	36	37
Allocated capital	\$37	\$37	\$37
Efficiency ratio	47 %	45 %	45 %

- Net income of \$3.1B decreased from 4Q18, as solid client activity partially offset the impact of lower interest rates in the second half of 2019
- Revenue of \$9.5B decreased \$0.4B, or 4%, from 4Q18, driven primarily by lower NII and the absence of a small gain in 4Q18
- Provision increased modestly from 4Q18
- Noninterest expense increased 1% from 4Q18, driven by the cost of increased client activity and investments for business growth, largely offset by improved productivity and lower FDIC expense
  - Continued investment in financial center and ATM builds/renovations, sales professionals, digital capabilities, minimum wage increases and Shared Success programs
  - Digital usage increased for sales, service and appointments
- Average deposits of \$720B grew \$33B, or 5%, from 4Q18
  - 53% of deposits in checking accounts; 91% primary accounts <sup>4</sup>
  - Average cost of deposits of 1.51% <sup>1</sup>; rate paid of 11 bps
- Average loans and leases of \$311B increased \$21B, or 7%, from 4Q18, driven by growth in residential mortgages
- Consumer investment assets of \$240B grew \$54B, or 29%, from 4Q18, driven by strong market performance and client flows
  - \$20B of client flows since 4Q18
  - Client accounts of 2.7MM, up 7%
- Combined credit / debit card spend increased 6% from 4Q18, including record holiday spend
- 6.1MM consumer clients enrolled in Preferred Rewards; 99% retention



<sup>1</sup> Cost of deposits calculated as annualized noninterest expense as a percentage of total average deposits within the Deposits subsegment.

<sup>2</sup> Consumer investment assets include client brokerage assets, deposit sweep balances and assets under management in Consumer Banking.

<sup>3</sup> Includes consumer credit card portfolios in Consumer Banking and GWIM.

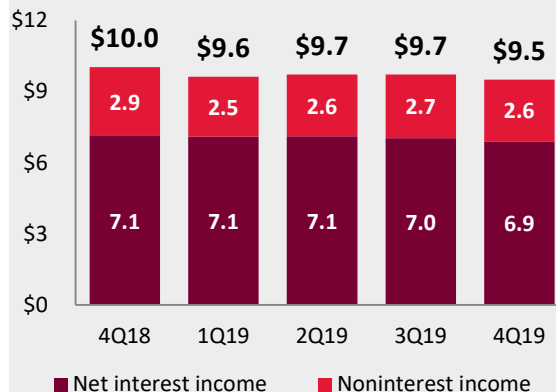
<sup>4</sup> Represents the percentage of consumer checking accounts that are estimated to be the customer's primary account based on multiple relationship factors (e.g., linked to their direct deposit).

# Consumer Banking Trends

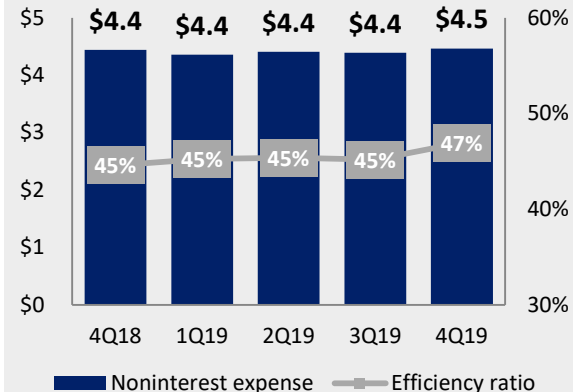
## Business Leadership <sup>1</sup>

- #1 Consumer Deposit Market Share <sup>A</sup>
- #1 Small Business Lender <sup>B</sup>
- #1 Online Banking and Mobile Banking Functionality <sup>C</sup>
- #1 Home Equity Originator <sup>D</sup>
- #1 in Prime Auto Credit distribution of new originations among peers <sup>E</sup>
- #1 Customer Satisfaction for Retail Banking Advice <sup>F</sup>
- 4-Star Rating by Barron's 2019 Best Online Brokers
- Named North America's Best Digital Bank <sup>G</sup>

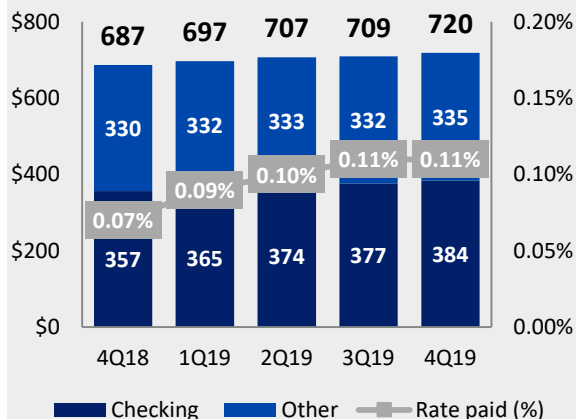
## Total Revenue (\$B)



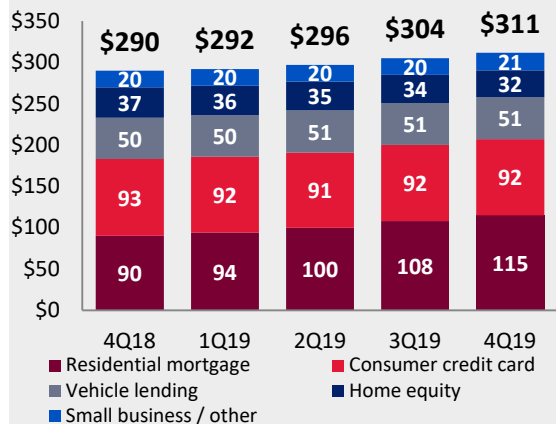
## Total Expense (\$B) and Efficiency



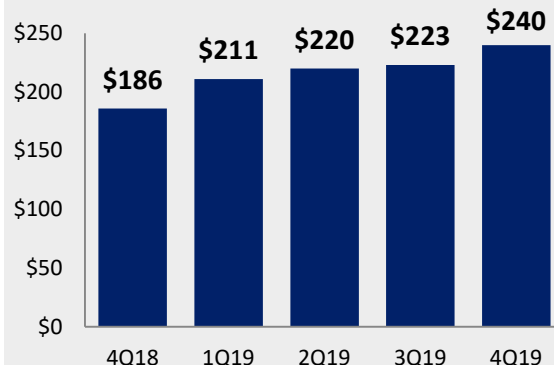
## Average Deposits (\$B)



## Average Loans and Leases (\$B)



## Consumer Investment Assets (EOP, \$B) <sup>2</sup>



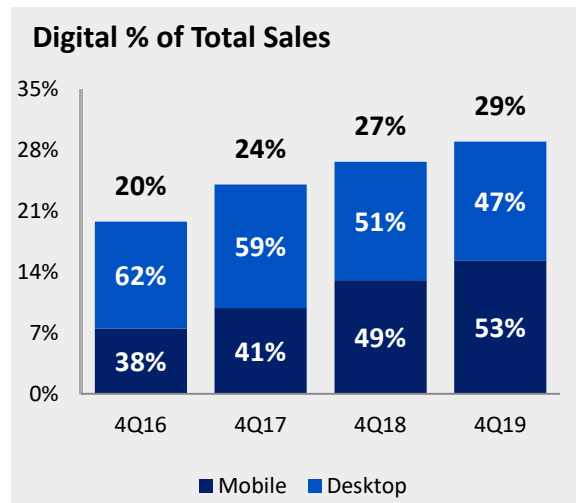
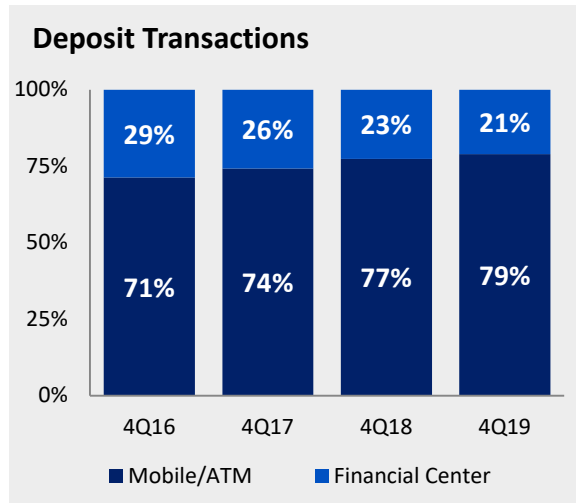
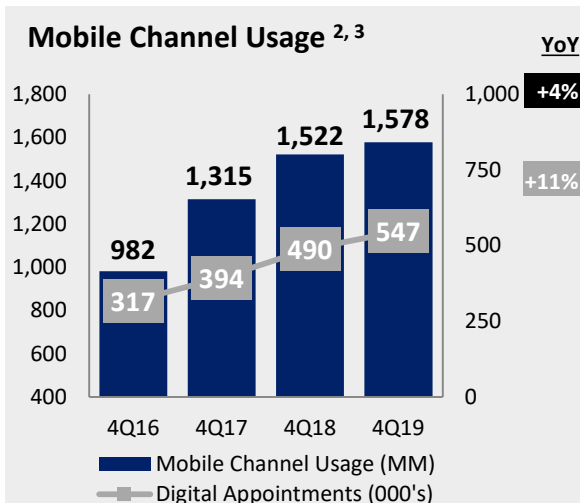
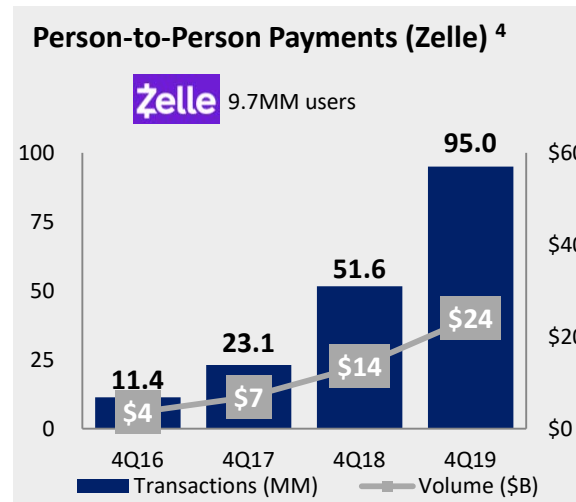
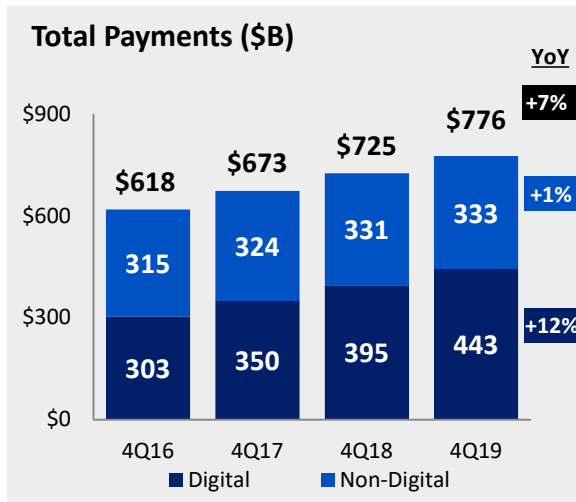
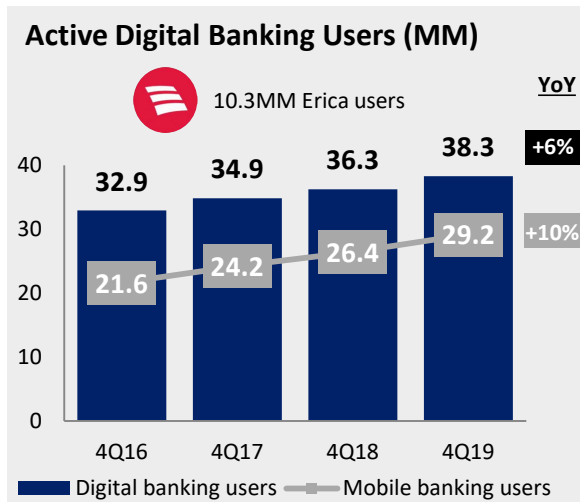
Note: Amounts may not total due to rounding.

<sup>1</sup> See slide 28 for business leadership sources.

<sup>2</sup> Consumer investment assets include client brokerage assets, deposit sweep balances and assets under management in Consumer Banking.



# Consumer Banking Digital Usage Trends <sup>1</sup>



Note: Amounts may not total due to rounding.

<sup>1</sup> Digital users represent mobile and/or online users.

<sup>2</sup> Mobile channel usage represents the total number of mobile banking sessions.

<sup>3</sup> Digital appointments represent the number of client-scheduled appointments made via online, smartphone or tablet.

<sup>4</sup> Includes Bank of America person-to-person payments sent and received through e-mail or mobile identification. Zelle users represent 90-day active users.



# Global Wealth & Investment Management

Summary Income Statement (\$MM)	4Q19	Inc / (Dec)	
		3Q19	4Q18
Total revenue, net of interest expense	\$4,913	\$9	(\$126)
Provision for credit losses	19	(18)	(4)
Noninterest expense	3,523	110	(40)
Pretax income	1,371	(83)	(82)
Income tax expense	336	(20)	(34)
Net income	\$1,035	(\$63)	(\$48)

Key Indicators (\$B)	4Q19	3Q19	4Q18
Average deposits	\$255.9	\$254.4	\$247.4
Average loans and leases	174.4	170.4	163.5
Net charge-off ratio	0.04 %	0.09 %	0.02 %
AUM flows <sup>1</sup>	\$8.1	\$5.5	\$4.5
Pretax margin	28 %	30 %	29 %
Return on average allocated capital	28	30	30
Allocated capital	\$14.5	\$14.5	\$14.5

- Net income of \$1.0B decreased 4% from 4Q18; ROAAC of 28%
  - Pretax margin of 28%
- Revenue of \$4.9B decreased 2% from 4Q18
  - 4Q18 included gain on sale of non-core asset
  - Asset management fees increased 5%, driven by the impact of higher market valuations and positive AUM flows, while transactional revenue declined
  - Net interest income declined, as solid loan and deposit growth partially offset the impact from lower interest rates
- Noninterest expense decreased 1% from 4Q18, as investments for business growth were more than offset by lower amortization of intangibles, litigation and FDIC expense
- Client balances of over \$3T, up 16% from 4Q18, driven by higher market valuations and positive net flows
  - AUM flows of \$8B in 4Q19 <sup>1</sup>
  - Average deposits of \$256B increased \$8B, or 3%, from 4Q18, partially driven by money market fund conversion in 4Q18
  - Average loans and leases of \$174B increased \$11B, or 7%, from 4Q18, driven by residential mortgage and custom lending
- 2019 net new households increased 64% in Private Bank and 25% in Merrill Lynch vs. 2018
- Household mobile channel usage increased 47% in Merrill Lynch and 38% in Private Bank from 4Q18



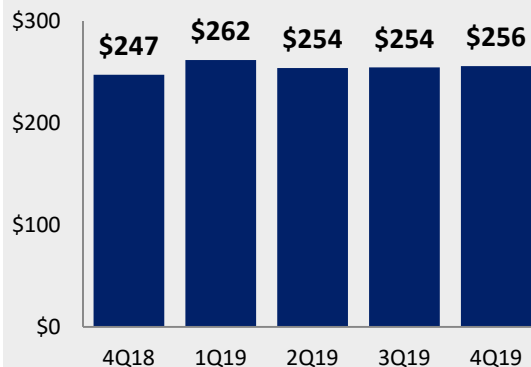
<sup>1</sup> Starting in 2Q19, AUM flows include managed deposits in investment accounts.

# Global Wealth & Investment Management Trends

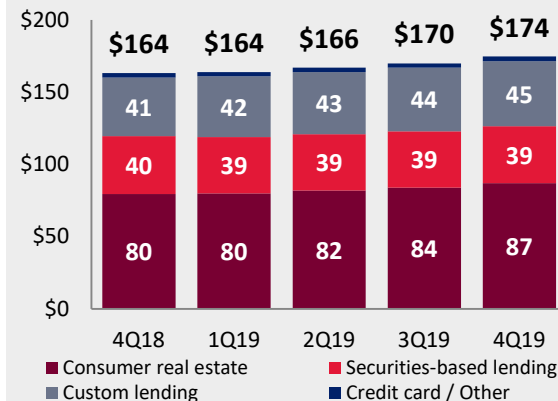
## Business Leadership <sup>1</sup>

- #1 U.S. wealth management market position across client assets, deposits and loans <sup>H</sup>
- #1 in personal trust assets under management <sup>I</sup>
- #1 in Barron's Top 1,200 ranked Financial Advisors (2019)
- #1 in Forbes' Top Next Generation Advisors (2019) and Best-in-State Wealth Advisors (2019)
- #1 in Financial Times Top 401K Retirement Plan Advisors (2019)
- #1 in Barron's Top 100 Women Advisors (2019)
- #1 in Forbes' Top Women Advisors (2019)

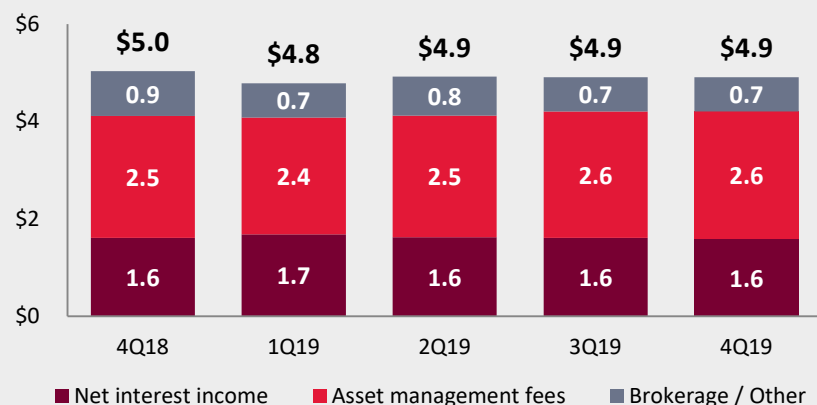
## Average Deposits (\$B)



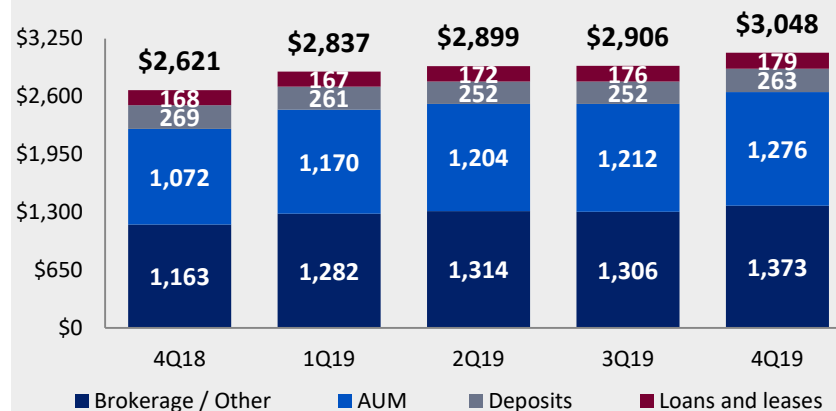
## Average Loans and Leases (\$B)



## Total Revenue (\$B)



## Client Balances (EOP, \$B) <sup>2,3</sup>



Note: Amounts may not total due to rounding.

<sup>1</sup> See slide 28 for business leadership sources.

<sup>2</sup> Loans and leases include margin receivables which are classified in customer and other receivables on the Consolidated Balance Sheet.

<sup>3</sup> Managed deposits in investment accounts of \$43B, \$40B, \$44B, \$43B and \$51B for 4Q19, 3Q19, 2Q19, 1Q19 and 4Q18, respectively, are included in both AUM and Deposits. Total client balances only include these balances once.



# Global Banking

Summary Income Statement (\$MM)	4Q19	Inc/(Dec)	
		3Q19	4Q18
Total revenue, net of interest expense <sup>1</sup>	\$5,141	(\$71)	(\$29)
Provision (benefit) for credit losses	58	(62)	(27)
Noninterest expense	2,321	102	193
Pretax income	2,762	(111)	(195)
Income tax expense	745	(31)	(24)
Net income	\$2,017	(\$80)	(\$171)

Selected Revenue Items (\$MM)	4Q19	3Q19	4Q18
Total Corporation IB fees (excl. self-led) <sup>1</sup>	\$1,474	\$1,533	\$1,348
Global Banking IB fees <sup>1</sup>	809	902	761
Business Lending revenue	2,122	2,135	2,213
Global Transaction Services revenue	2,136	2,096	2,142

Key Indicators (\$B)	4Q19	3Q19	4Q18
Average deposits	\$378.5	\$360.5	\$359.6
Average loans and leases	377.4	377.1	357.4
Net charge-off ratio	0.04 %	0.12 %	0.06 %
Return on average allocated capital	20	20	21
Allocated capital	\$41	\$41	\$41
Efficiency ratio	45 %	43 %	41 %

- Net income of \$2.0B decreased 8% from 4Q18; ROAAC of 20%
- Revenue of \$5.1B decreased 1% from 4Q18, as higher leasing-related revenue and investment banking fees were more than offset by lower net interest income
- Total Corporation investment banking fees of \$1.5B (excl. self-led) increased 9% from 4Q18, driven by higher debt and equity underwriting fees
  - 6.2% investment banking fee market share, up 70 bps<sup>2</sup>
- Noninterest expense increased 9% from 4Q18, primarily due to continued investments in the business, including in technology and client-facing associates
- Average deposits of \$379B increased 5% from 4Q18, driven by increased client coverage
- Average loans and leases of \$377B increased 6% from 4Q18, driven by broad-based growth across corporate and commercial clients



<sup>1</sup> Global Banking and Global Markets share in certain deal economics from investment banking, loan origination activities and sales and trading activities.

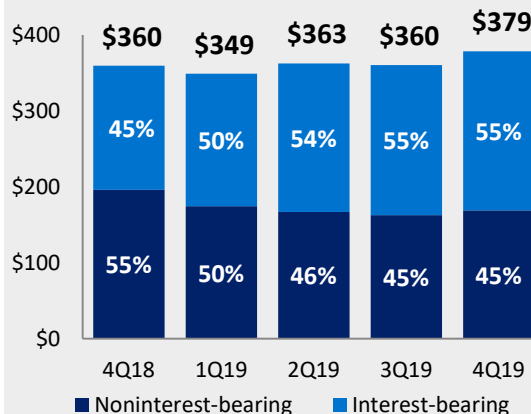
<sup>2</sup> Per Dealogic as of January 2, 2020.

# Global Banking Trends

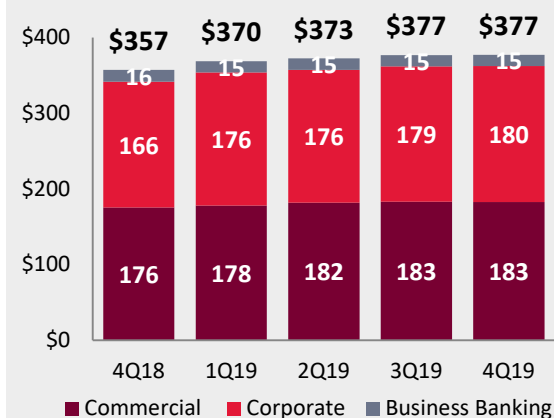
## Business Leadership <sup>1</sup>

- North America's Best Bank for Small to Medium-sized Enterprises <sup>G</sup>
- North America's Best Bank for Financing <sup>G</sup>
- 2019 Quality, Share and Excellence Awards for U.S. Large Corporate Banking and Cash Management <sup>L</sup>
- Best Bank for Liquidity Management, North America <sup>M</sup>
- Best Investment Bank for Debt in Western Europe <sup>M</sup>
- Relationships with 77% of the Global Fortune 500; 95% of the U.S. Fortune 1,000 (2019)

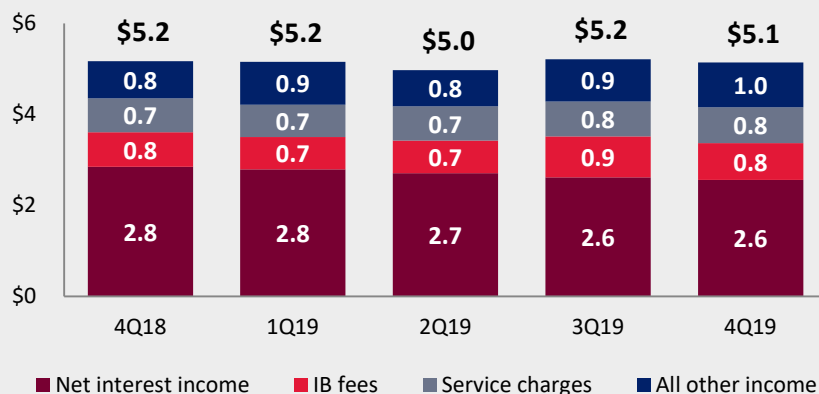
## Average Deposits (\$B)



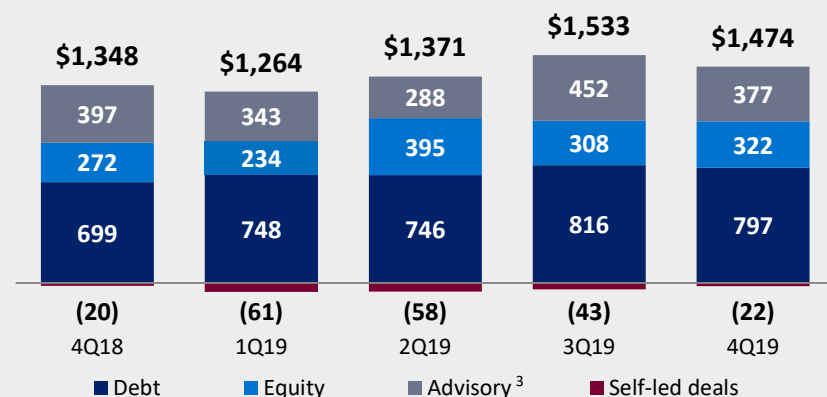
## Average Loans and Leases (\$B)



## Total Revenue (\$B) <sup>2</sup>



## Total Corporation IB Fees (\$MM) <sup>2</sup>



Note: Amounts may not total due to rounding.

<sup>1</sup> See slide 28 for business leadership sources.

<sup>2</sup> Global Banking and Global Markets share in certain deal economics from investment banking, loan origination activities and sales and trading activities.

<sup>3</sup> Advisory includes fees on debt and equity advisory and mergers and acquisitions.

# Global Banking Digital Update <sup>1</sup>

**CashPro® Online Users**  
across commercial, corporate and business banking clients

**~500K** 

**CashPro® Mobile App Logins**

**+110%** 

Rolling 12 mos. YoY

**CashPro® Mobile Payment Approvals Value**

**\$160B**


up 82% Rolling 12 mos. YoY 

**CashPro® Mobile Checks Deposited**

**+118%**

Rolling 12 mos. YoY 

**CashPro® Assistant**

Utilizing Predictive Analytics and APIs to make it easier for clients to analyze info 

**eSignature**

Documents e-Signed via CashPro Assistant

**47K**

In 2019 

Investing in Digital Technology to Develop Integrated Solutions for Our Clients that are:

## FAST

### CashPro Mobile

Expanding access and capabilities

### Mobile Wallet

For Commercial Card

### Real Time Payments

For U.S. payments

### CashPro API

Supporting real-time access

### Digitizing KYC refreshes

Faster and easier through CashPro Assistant

*Improving Connectivity and Access*

## SMART

### Notifications

For added visibility

### Intelligent Receivables

Bringing AI to Receivables with award-winning solution

### Email Assist

Intelligently casing service requests

### CashPro Assistant

Driving a fast, smart, secure experience

### eSignature

Also on CashPro Mobile

*Leveraging Data and Intelligence*

## SECURE

### Automatic Fraud Monitoring

Smart and secure

### Mobile Token

Expanding access

### Document Exchange

CashPro Online and Mobile

### Paperless Statements

For commercial card

### Biometrics

For CashPro Mobile

*Confidently doing business anytime, anywhere*



<sup>1</sup> Metrics as of December 31, 2019 unless otherwise indicated.

# Global Markets

Summary Income Statement (\$MM)	4Q19	Inc/(Dec)	
		3Q19	4Q18
Total revenue, net of interest expense <sup>1</sup>	\$3,426	(\$437)	\$179
<i>Net DVA</i>	(86)	(71)	(138)
<i>Total revenue (excl. net DVA) <sup>1,2</sup></i>	3,512	(366)	317
Provision for credit losses	9	9	3
Noninterest expense	2,614	(64)	62
Pretax income	803	(382)	114
Income tax expense	229	(109)	50
Net income	\$574	(\$273)	\$64
<i>Net income (excl. net DVA) <sup>2</sup></i>	\$639	(\$219)	\$169
<b>Selected Revenue Items (\$MM) <sup>1</sup></b>	<b>4Q19</b>	<b>3Q19</b>	<b>4Q18</b>
Sales and trading revenue	\$2,773	\$3,204	\$2,588
Sales and trading revenue (excl. net DVA) <sup>2</sup>	2,859	3,219	2,536
FICC (excl. net DVA) <sup>2</sup>	1,836	2,074	1,472
Equities (excl. net DVA) <sup>2</sup>	1,023	1,145	1,064
Global Markets IB fees	581	585	513
<b>Key Indicators (\$B)</b>	<b>4Q19</b>	<b>3Q19</b>	<b>4Q18</b>
Average total assets	\$680.1	\$687.4	\$655.1
Average trading-related assets	489.3	498.8	464.0
Average 99% VaR (\$MM) <sup>3</sup>	35	34	36
Average loans and leases	73.0	71.6	70.6
Return on average allocated capital	7 %	10 %	6 %
Allocated capital	\$35	\$35	\$35
Efficiency ratio	76 %	69 %	79 %

- Net income of \$574MM increased 13% from 4Q18; ROAAC of 7%
  - Excluding net DVA, net income of \$639MM increased 36% <sup>2</sup>
- Revenue of \$3.4B increased 6% from 4Q18; excluding net DVA, revenue increased 10% <sup>2</sup>
- Excluding net DVA, sales and trading revenue of \$2.9B increased 13% from 4Q18 <sup>2</sup>
  - FICC revenue of \$1.8B increased 25%, driven by an improvement in most products, particularly mortgages
  - Equities revenue of \$1.0B decreased 4%, driven by lower levels of client activity in derivatives
- Noninterest expense increased 2% vs. 4Q18
- Average VaR remained low at \$35MM in 4Q19 <sup>3</sup>



<sup>1</sup> Global Banking and Global Markets share in certain deal economics from investment banking, loan origination activities and sales and trading activities.

<sup>2</sup> Represent non-GAAP financial measures; see note C on slide 27 and slide 30 for important presentation information.

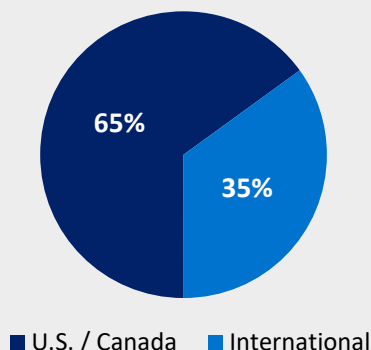
<sup>3</sup> See note D on slide 27 for the definition of VaR.

# Global Markets Trends and Revenue Mix

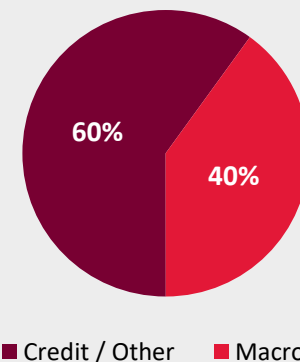
## Business Leadership <sup>1</sup>

- Derivatives House of the Year <sup>K, P</sup>
- Most Innovative Bank for Equity Derivatives <sup>J</sup>
- #1 for U.S. FICC Overall Trading Quality and #1 for U.S. FICC Overall Sales Quality <sup>L</sup>
- Quality Leader in Global Top-Tier Foreign Exchange Sales and Corporate FX Sales <sup>L</sup>
- Leader in U.S. Fixed Income Market Share <sup>L</sup>
- #1 Municipal Bonds Underwriter <sup>N</sup>
- #1 Global Research Firm <sup>O</sup>
- #1 Global Fixed Income Research Team <sup>O</sup>

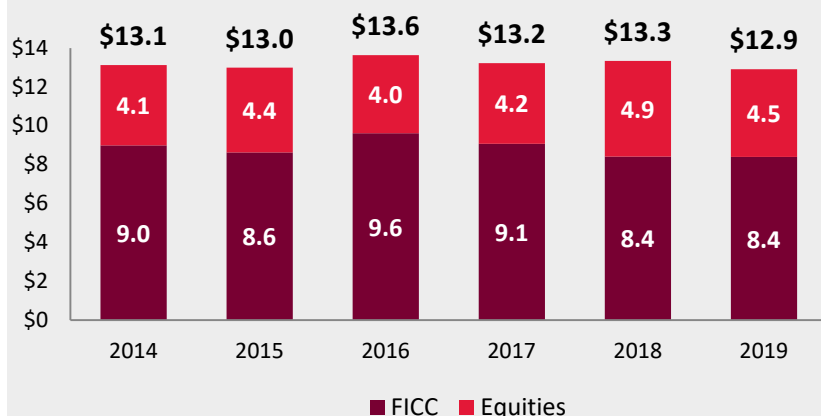
## 2019 Global Markets Revenue Mix (excl. net DVA) <sup>2</sup>



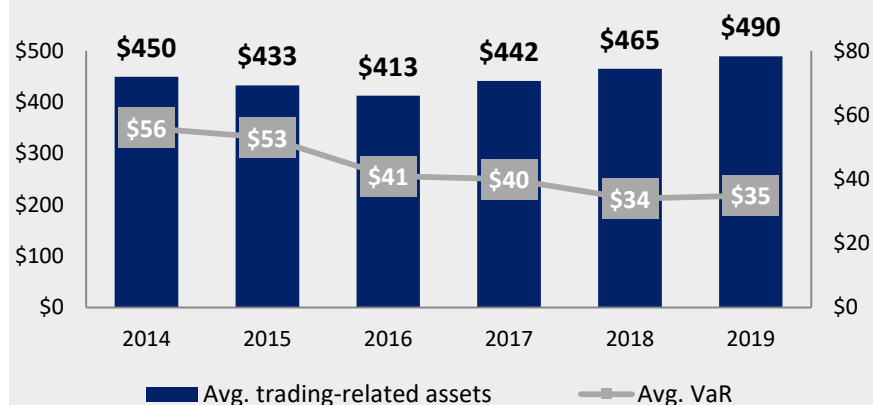
## 2019 Total FICC S&T Revenue Mix (excl. net DVA) <sup>2</sup>



## Total Sales and Trading Revenue (excl. net DVA) (\$B) <sup>2</sup>



## Average Trading-related Assets (\$B) and VaR (\$MM) <sup>4</sup>



Note: Amounts may not total due to rounding.

<sup>1</sup> See slide 28 for business leadership sources.

<sup>2</sup> Represents a non-GAAP financial measure. Reported sales and trading revenue was \$12.7B, \$13.2B, \$12.8B, \$13.4B, \$12.2B and \$12.9B for 2019, 2018, 2017, 2016, 2015 and 2014, respectively. Reported FICC sales and trading revenue was \$8.2B, \$8.3B, \$8.7B, \$9.4B, \$7.9B and \$8.7B for 2019, 2018, 2017, 2016, 2015 and 2014, respectively. Reported Equities sales and trading revenue was \$4.5B, \$4.9B, \$4.1B, \$4.0B, \$4.3B and \$4.2B for 2019, 2018, 2017, 2016, 2015 and 2014, respectively. See note C on slide 27 and slide 30 for important presentation information.

<sup>3</sup> Macro includes G10 FX, rates and commodities products.

<sup>4</sup> See note D on slide 27 for definition of VaR.





# All Other <sup>1</sup>

Summary Income Statement (\$MM)	4Q19	Inc/(Dec)	
		3Q19	4Q18
Total revenue, net of interest expense	(\$500)	\$248	\$86
Provision (benefit) for credit losses	(79)	216	45
Noninterest expense	315	(2,153)	(81)
Pretax income (loss)	(736)	2,185	122
Income tax expense (benefit)	(998)	324	(81)
Net income (loss)	\$262	\$1,861	\$203

- Net income of \$262MM in 4Q19
- Comparison to the prior quarter impacted by the 3Q19 impairment charge related to the notice of termination of the merchant services joint venture <sup>2</sup>
- Compared with 3Q19, 4Q19 Total Corporation other income included \$0.2B of higher partnership losses associated with an increase in tax-advantaged solar and wind investments in our leasing business
- Total Corporation effective tax rate of 14% was positively impacted by:
  - \$0.3B benefit from the resolution of certain tax matters
  - Higher levels of credits related to tax-advantaged investments



<sup>1</sup> All Other consists of asset and liability management (ALM) activities, equity investments, non-core mortgage loans and servicing activities, liquidating businesses and certain expenses not otherwise allocated to a business segment. ALM activities encompass certain residential mortgages, debt securities, and interest rate and foreign currency risk management activities. Substantially all of the results of ALM activities are allocated to our business segments. Equity investments include our merchant services joint venture, as well as a portfolio of equity, real estate and other alternative investments.

<sup>2</sup> See note A on slide 27.

# Appendix



# Notes

- <sup>A</sup> Our financial results, after giving effect to the impact of the non-cash impairment charge related to the notice of termination of the merchant services joint venture at the conclusion of its current term, include non-GAAP financial measures. This impairment charge was recorded in 3Q19 and reduced net income by \$1.7B, or \$0.19 per diluted share (\$0.18 per diluted share for full-year 2019), which included an increase in noninterest expense and a reduction in pretax income of \$2.1B and a reduction in income tax expense of \$373MM. The impairment charge negatively impacted 2019 return on average assets by 7 bps, return on average common shareholders' equity by 66 bps, return on average tangible common shareholders' equity by 91 bps, and increased the efficiency ratio by 227 bps. Reported 2019 metrics are shown on slide 2. We believe the use of these non-GAAP financial measures provides additional clarity in understanding our results of operations and comparing our operational performance between periods.
- <sup>B</sup> Global Liquidity Sources (GLS) include cash and high-quality, liquid, unencumbered securities, limited to U.S. government securities, U.S. agency securities, U.S. agency MBS, and a select group of non-U.S. government and supranational securities, and are readily available to meet funding requirements as they arise. It does not include Federal Reserve Discount Window or Federal Home Loan Bank borrowing capacity. Transfers of liquidity among legal entities may be subject to certain regulatory and other restrictions.
- <sup>C</sup> Revenue for all periods included net debit valuation adjustments (DVA) on derivatives, as well as amortization of own credit portion of purchase discount and realized DVA on structured liabilities. Net DVA gains (losses) were (\$86MM), (\$15MM) and \$52MM for 4Q19, 3Q19 and 4Q18, respectively, and (\$222MM), (\$162MM), (\$428MM), (\$238MM), (\$786MM) and (\$240MM) for 2019, 2018, 2017, 2016, 2015 and 2014, respectively. Net DVA gains (losses) included in FICC revenue were (\$81MM), (\$18MM) and \$45MM for 4Q19, 3Q19 and 4Q18, respectively, and (\$208MM), (\$142MM), (\$394MM), (\$238MM), (\$763MM) and (\$308MM) for 2019, 2018, 2017, 2016, 2015 and 2014, respectively. Net DVA gains (losses) included in Equities revenue were (\$5MM), \$3MM and \$7MM for 4Q19, 3Q19 and 4Q18, respectively, and (\$14MM), (\$20MM), (\$34MM), \$0MM, (\$23MM) and \$68MM for 2019, 2018, 2017, 2016, 2015 and 2014, respectively.
- <sup>D</sup> VaR model uses historical simulation approach based on three years of historical data and an expected shortfall methodology equivalent to a 99% confidence level. Using a 95% confidence level, average VaR was \$20MM, \$19MM and \$22MM for 4Q19, 3Q19 and 4Q18, respectively, and \$20MM, \$19MM, \$20MM, \$22MM, \$25MM and \$29MM for 2019, 2018, 2017, 2016, 2015 and 2014, respectively.



# Sources

<sup>A</sup> Estimated retail consumer deposits based on June 30, 2019 FDIC deposit data.

<sup>B</sup> FDIC, 3Q19.

<sup>C</sup> Dynatrace 4Q19 Online Banker Scorecard and 3Q19 Mobile Banker Scorecard; Javelin 2019 Online and Mobile Banking Scorecards.

<sup>D</sup> Inside Mortgage Finance, 3Q19.

<sup>E</sup> Experian Autocount; Franchised Dealers; Largest percentage of 680+ Vantage 3.0 originations among key competitors as of October 2019.

<sup>F</sup> J.D. Power, February 2019.

<sup>G</sup> Euromoney, July 2019.

<sup>H</sup> U.S.-based full-service wirehouse peers based on 3Q19 earnings releases.

<sup>I</sup> Industry 2Q19 FDIC call reports.

<sup>J</sup> The Banker, 2019.

<sup>K</sup> Global Capital, 2019.

<sup>L</sup> Greenwich, 2019.

<sup>M</sup> Global Finance, 2019.

<sup>N</sup> Refinitiv, 2019.

<sup>O</sup> Institutional Investor, 2019.

<sup>P</sup> Risk Awards, 2020.



# Forward-Looking Statements

Bank of America Corporation (the “Company”) and its management may make certain statements that constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as “anticipates,” “targets,” “expects,” “hopes,” “estimates,” “intends,” “plans,” “goals,” “believes,” “continue” and other similar expressions or future or conditional verbs such as “will,” “may,” “might,” “should,” “would” and “could.” Forward-looking statements represent the Company’s current expectations, plans or forecasts of its future results, revenues, expenses, efficiency ratio, capital measures, strategy, and future business and economic conditions more generally, and other future matters. These statements are not guarantees of future results or performance and involve certain known and unknown risks, uncertainties and assumptions that are difficult to predict and are often beyond the Company’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 the Company’s 2018 Annual Report on Form 10-K and in any of the Company’s subsequent Securities and Exchange Commission filings: the Company’s potential claims, damages, penalties, fines and reputational damage resulting from pending or future litigation, regulatory proceedings and enforcement actions; the possibility that the Company’s future liabilities may be in excess of its recorded liability and estimated range of possible loss for litigation, regulatory, and representations and warranties exposures; the possibility that the Company could face increased servicing, fraud, indemnity, contribution, or other claims from one or more counterparties, including trustees, purchasers of loans, underwriters, issuers, monolines, private-label and other investors, or other parties involved in securitizations; the Company’s ability to resolve representations and warranties repurchase and related claims, including claims brought by investors or trustees seeking to avoid the statute of limitations for repurchase claims; the risks related to the discontinuation of the London InterBank Offered Rate and other reference rates, including increased expenses and litigation and the effectiveness of hedging strategies; uncertainties about the financial stability and growth rates of non-U.S. jurisdictions, the risk that those jurisdictions may face difficulties servicing their sovereign debt, and related stresses on financial markets, currencies and trade, and the Company’s exposures to such risks, including direct, indirect and operational; the impact of U.S. and global interest rates, inflation, currency exchange rates, economic conditions, trade policies and tensions, including tariffs, and potential geopolitical instability; the impact of the interest rate environment on the Company’s business, financial condition and results of operations; the possibility that future credit losses may be higher than currently expected due to changes in economic assumptions, customer behavior, adverse developments with respect to U.S. or global economic conditions and other uncertainties; the Company’s ability to achieve its expense targets and expectations regarding net interest income, net charge-offs, effective tax rate, loan growth or other projections; adverse changes to the Company’s credit ratings from the major credit rating agencies; an inability to access capital markets or maintain deposits or borrowing costs; estimates of the fair value and other accounting values, subject to impairment assessments, of certain of the Company’s assets and liabilities; the estimated or actual impact of changes in accounting standards or assumptions in applying those standards, including the new credit loss accounting standard; uncertainty regarding the content, timing and impact of regulatory capital and liquidity requirements; the impact of adverse changes to total loss-absorbing capacity requirements and/or global systemically important bank surcharges; the potential impact of actions of the Board of Governors of the Federal Reserve System on the Company’s capital plans; the effect of regulations, other guidance or additional information on the impact from the Tax Cuts and Jobs Act; the impact of implementation and compliance with U.S. and international laws, regulations and regulatory interpretations, including, but not limited to, recovery and resolution planning requirements, Federal Deposit Insurance Corporation assessments, the Volcker Rule, fiduciary standards and derivatives regulations; a failure or disruption in or breach of the Company’s operational or security systems or infrastructure, or those of third parties, including as a result of cyber-attacks; the impact on the Company’s business, financial condition and results of operations from the planned exit of the United Kingdom from the European Union; the impact of any future federal government shutdown and uncertainty regarding the federal government’s debt limit; and other matters.

Forward-looking statements speak only as of the date they are made, and the Company 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.



# Important Presentation Information

- The information contained herein is preliminary and based on Company data available at the time of the earnings presentation. It speaks only as of the particular date or dates included in the accompanying slides. Bank of America does not undertake an obligation to, and disclaims any duty to, update any of the information provided.
- In the Consolidated Statement of Income, amounts related to certain asset and liability management activities have been reclassified from Other income to Market making and similar activities, which was previously referred to as Trading account income. All prior periods presented reflect this change, which has no impact on the Company's Total noninterest income or Net income, and has no impact on business segment results. The amounts included in Market making and similar activities related to this change in presentation are as follows: \$930 million and \$1.1 billion for the years ended December 31, 2019 and 2018, and \$53 million, \$411 million, \$36 million, \$430 million and \$177 million in the fourth, third, second and first quarters of 2019 and the fourth quarter of 2018, respectively.
- The Company may present certain key performance indicators and ratios, including year-over-year comparisons of revenue, noninterest expense and pretax income, excluding certain items (e.g., DVA) which result in non-GAAP financial measures. The Company believes the use of these non-GAAP financial measures provides additional clarity in understanding its results of operations and trends. For more information about the non-GAAP financial measures contained herein, please see the presentation of the most directly comparable financial measures calculated in accordance with GAAP and accompanying reconciliations in the earnings press release for the quarter ended December 31, 2019 and other earnings-related information available through the Bank of America Investor Relations website at: <http://investor.bankofamerica.com>.
- The Company views 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. The Company believes managing the business with net interest income on an FTE basis provides investors with a more accurate picture of the interest margin for comparative purposes. The Company believes that the presentation allows for comparison of amounts from both taxable and tax-exempt sources and is consistent with industry practices. The FTE adjustment was \$145MM, \$148MM, \$149MM, \$153MM and \$155MM for 4Q19, 3Q19, 2Q19, 1Q19 and 4Q18, respectively.
- The Company allocates capital to its business segments using a methodology that considers the effect of regulatory capital requirements in addition to internal risk-based capital models. The Company's internal risk-based capital models use a risk-adjusted methodology incorporating each segment's credit, market, interest rate, business and operational risk components. Allocated capital is reviewed periodically and refinements are made based on multiple considerations that include, but are not limited to, risk-weighted assets measured under Basel 3 Standardized and Advanced approaches, business segment exposures and risk profile, and strategic plans.



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