FOURTH QUARTER 2020 EARNINGS PRESENTATION

JANUARY 21, 2021

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Presentation:

Within the charts and tables presented, certain segments, columns and rows may not sum to totals shown due to rounding.

Non-GAAP Measures:

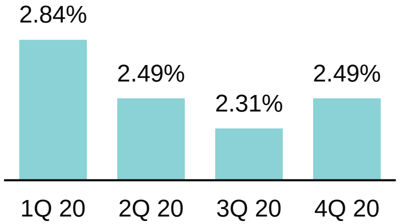
This presentation includes certain non-GAAP financial measures. These non-GAAP measures are provided in addition to, and not as substitutes for, measures of our financial performance determined in accordance with GAAP. Our calculation of these non-GAAP measures may not be comparable to similarly titled measures of other companies due to potential differences between companies in the method of calculation. As a result, the use of these non-GAAP measures has limitations and should not be considered superior to, in isolation from, or as a substitute for, related GAAP measures. Reconciliations of these non-GAAP financial measures to the most directly comparable GAAP financial measures can be found at the end of this presentation.

2020: Managing a Tumultuous Year

($ in millions except per share data)

Active NIM Management

(Quarterly NIM)



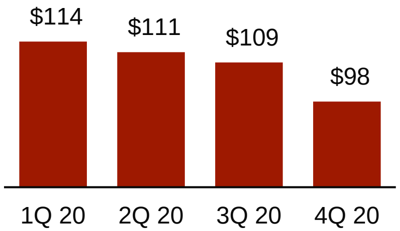
FY 2020 NIM 2.53%

We managed our margin through the low rate environment...

- Reduced the cost of funding across the bank
- Increased C&I loan spreads
- Minimized our investments and wholesale funding

Proactive Cost Saving Initiatives

(Quarterly personnel expense)



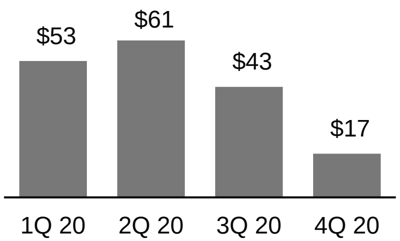
FY 2020 personnel expense down 11% YoY

...and completed cost saving initiatives...

- Further rationalized our branch network by 9%[1]
- Reduced staffing levels by 12%[1]
- Back office streamlining drove additional savings

Improving Credit Position

(Quarterly provision expense)



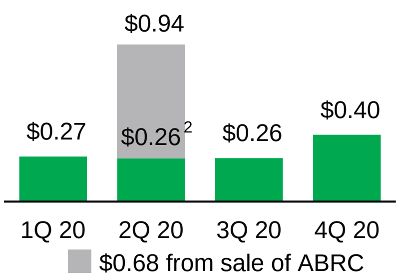
Quarterly provision for credit losses declining

...while continuing to produce improving credit quality metrics...

- Provision peaked in 2Q and has been declining
- Net reserve release for the fourth quarter of 2020
- Improving economic and portfolio outlook

Increasing Earnings

(Quarterly EPS)



FY 2020 GAAP EPS of $1.86 and adjusted EPS[2] of $1.19

...which has driven increasing EPS

- Full year 2020 GAAP EPS was $1.86 as compared to $1.91 in 2019
- The cost saving initiatives executed during the year, along with reduced provision, were key drivers in the 54% increase to EPS from 3Q to 4Q

[1] Down from 12/31/2019.
[2] A non-GAAP measure. Please refer to the appendix for a reconciliation of adjusted earnings per common share to earnings per common share.

2020 Fourth Quarter Update

Fourth quarter 2020 results reflected positive trends across our core business and operations

Associated Banc-Corp Reports Fourth Quarter 2020 Earnings of $0.40 Per Common Share and $1.86 Per Common Share for the Full Year 2020

Expanding Margin Trends

- 4Q 2020 NIM of 2.49%, up 18 bps from 3Q 2020
- 4Q average loans grew $1.9 billion YoY, up 8%
- Mortgage warehouse and CRE lending continued to be strong during 4Q 2020
- PPP forgiveness began during 4Q which accelerated the recognition of SBA fees

Growing Low Cost Deposits

- Low-cost deposits accounted for ~64% of total deposits at the end of 2020
- Cost of interest bearing deposits excluding time decreased to 7 bps in 4Q 2020
- Loan-to-deposit ratio of 92% at the end of 2020

Improving Credit Dynamics

- Provision of $17 million driving an $11 million net reserve release for 4Q
- Total deferrals less than $80 million, or 0.32% of EOP loans
- NPA and nonaccruals are both down from 3Q 2020
- Well reserved with ACLL to loan ratio of 1.76% (1.82% excl. PPP) at the end of 2020

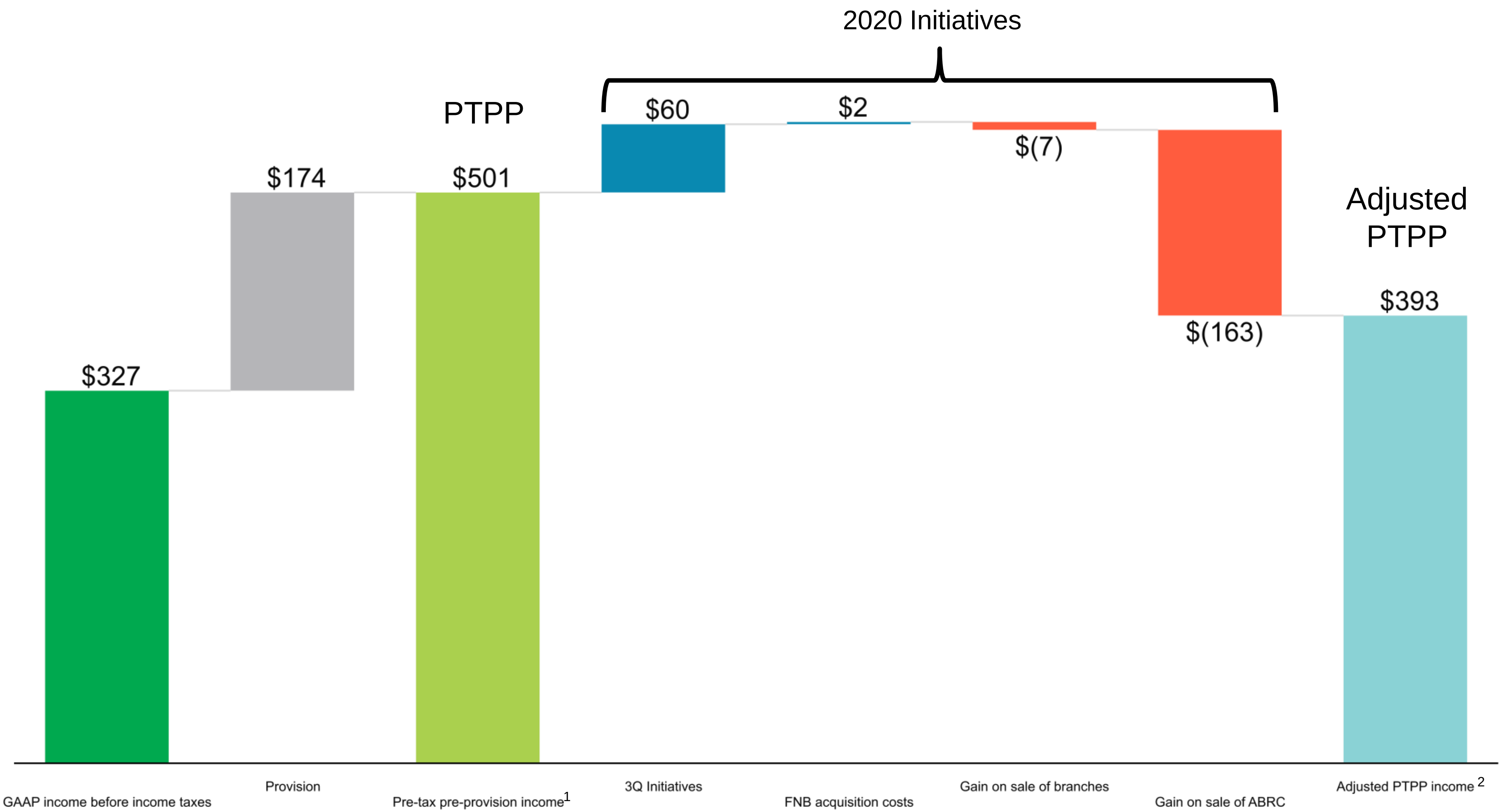
Strong Capital Position

- Tangible book value per share increased to $16.67 at 12/31/20
- Dividend payout ratio of 39% for the year
- All regulatory capital ratios finished 2020 higher than 2019

2020 Pre-Tax Pre-Provision

2020 included multiple cost saving initiatives and asset sales which drove PTPP higher YoY

($ in millions)

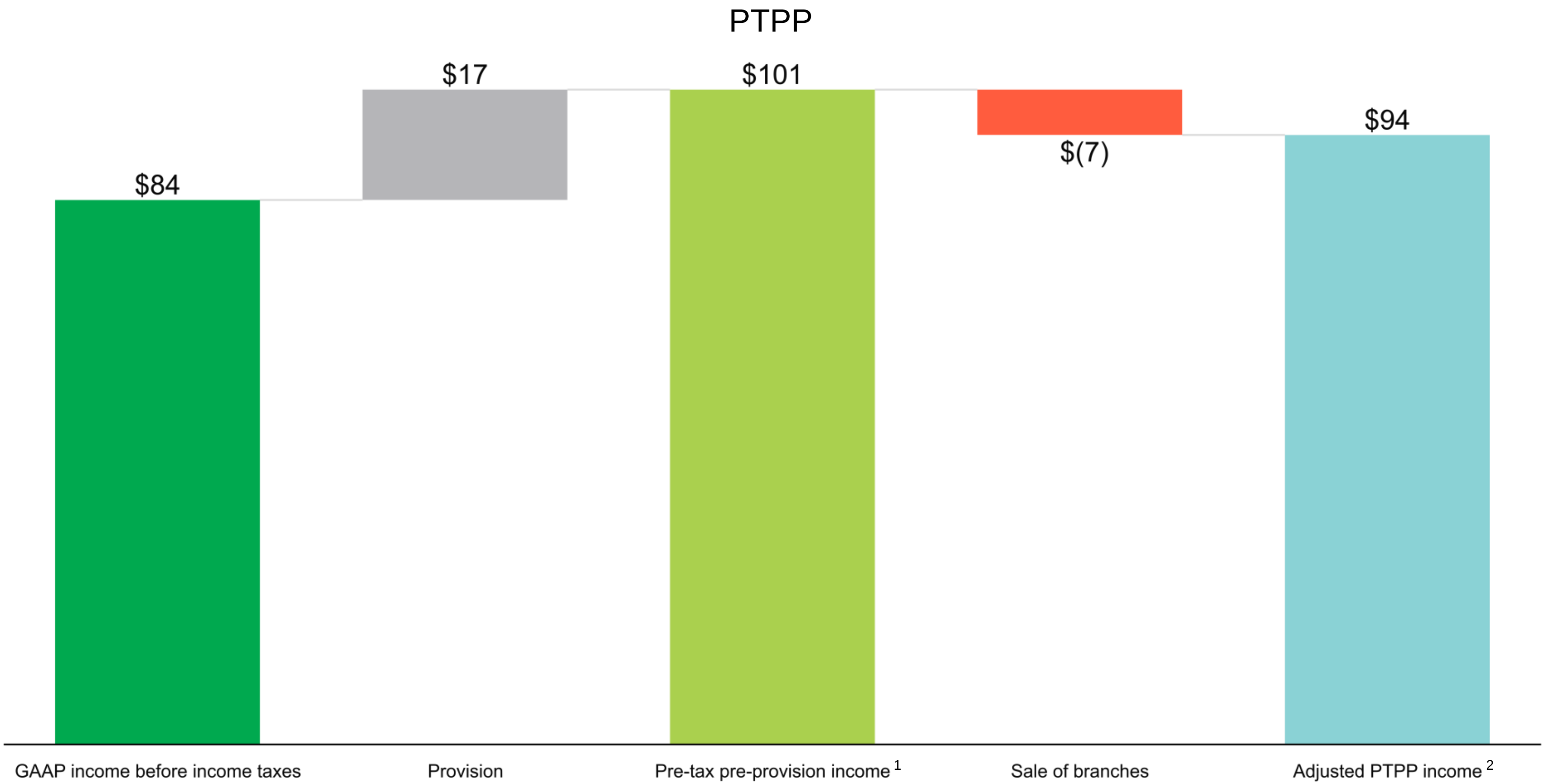


[1] A non-GAAP measure. Please refer to the appendix for a reconciliation of pre-tax pre-provision income to income before income taxes.
[2] A non-GAAP measure. Please refer to the appendix for a reconciliation of adjusted pre-tax pre-provision income to income before income taxes.

4Q 2020 PTPP Walkforward

4Q 2020 PTPP income excluding gain on sale of branches of $94 million

($ in millions)



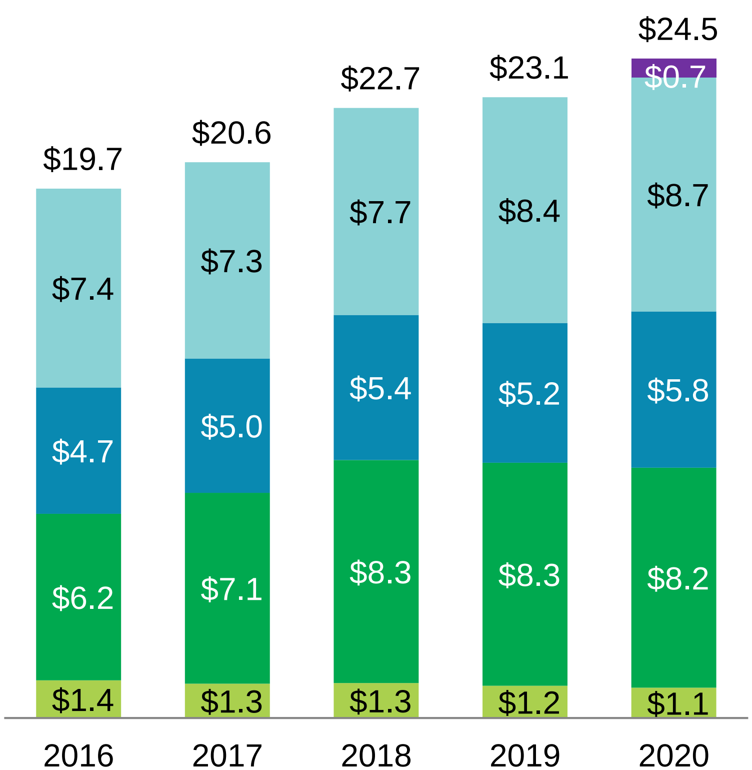
[1] A non-GAAP measure. Please refer to the appendix for a reconciliation of pre-tax pre-provision income to income before income taxes.
[2] A non-GAAP measure. Please refer to the appendix for a reconciliation of adjusted pre-tax pre-provision income to income before income taxes.

Annual Loan Trends

PPP, CRE, and Mortgage Warehouse lead growth as we continued to reduce our Oil & Gas exposures

Average Annual Loans

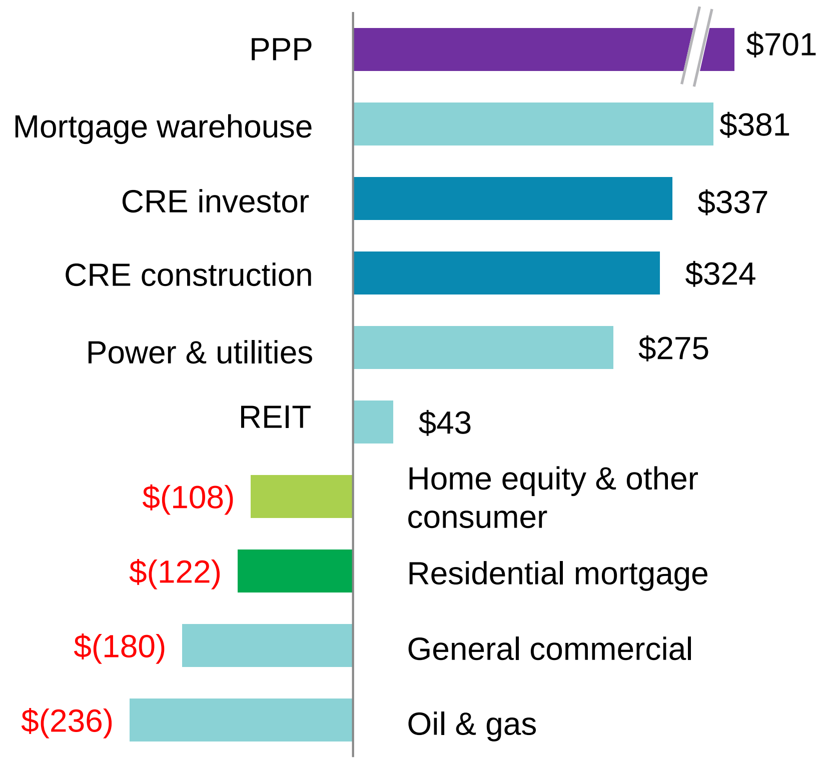
($ in billions)



Commercial & business lending | Commercial real estate | Residential mortgage | Home equity & other consumer | PPP

Average Loan Change (2019 to 2020)

($ in millions)

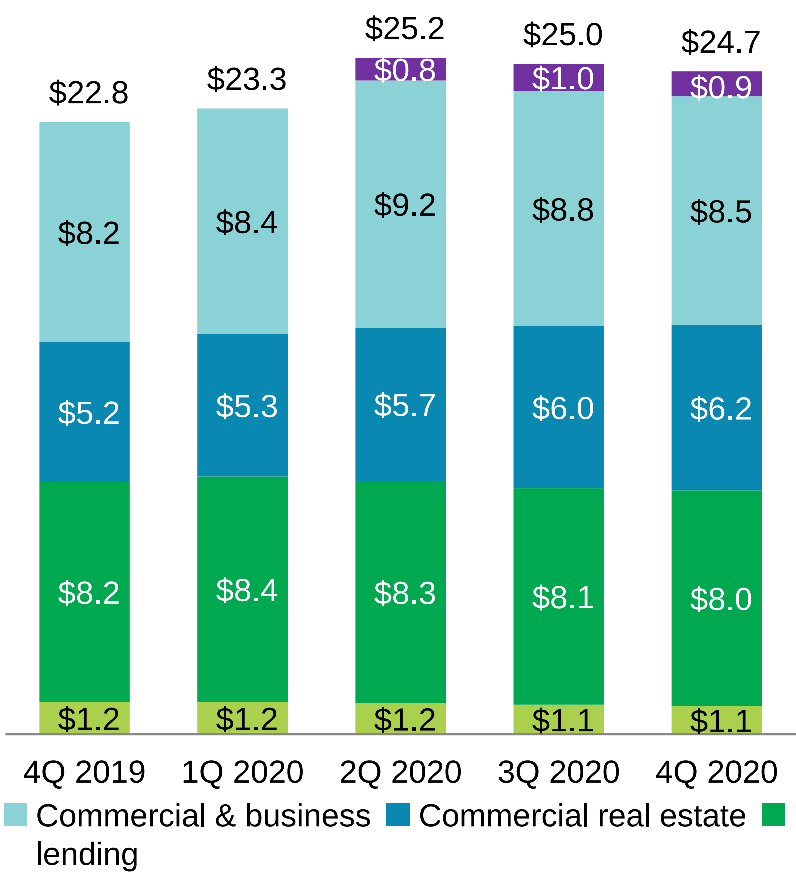


Quarterly Loan Trends

CRE continues to grow partially offset by general commercial loans

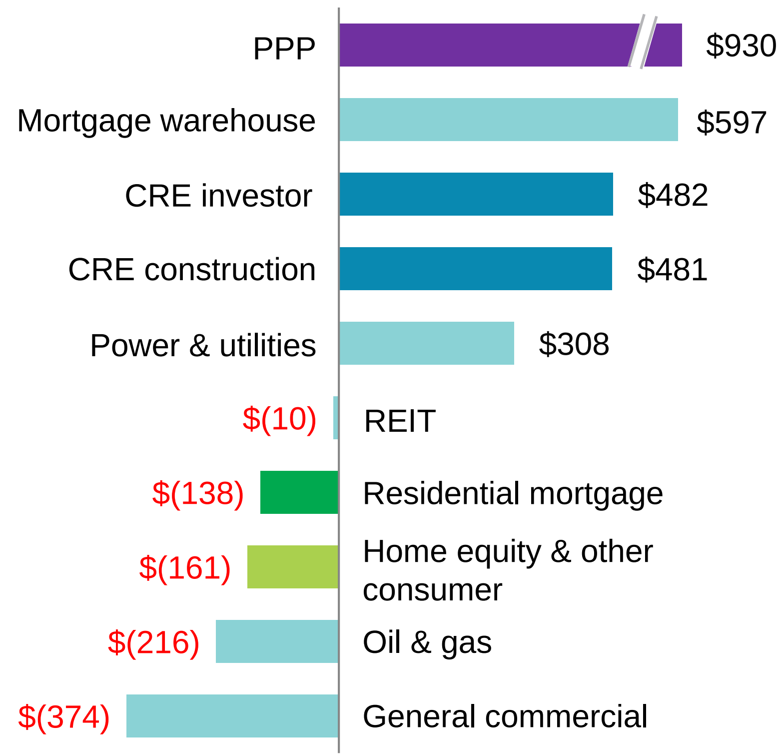
Average Quarterly Loans

($ in billions)



Average Loan Change (4Q19 to 4Q20)

($ in millions)



Loan Deferral Update

Total deferrals have declined approximately 95% since 2Q 2020

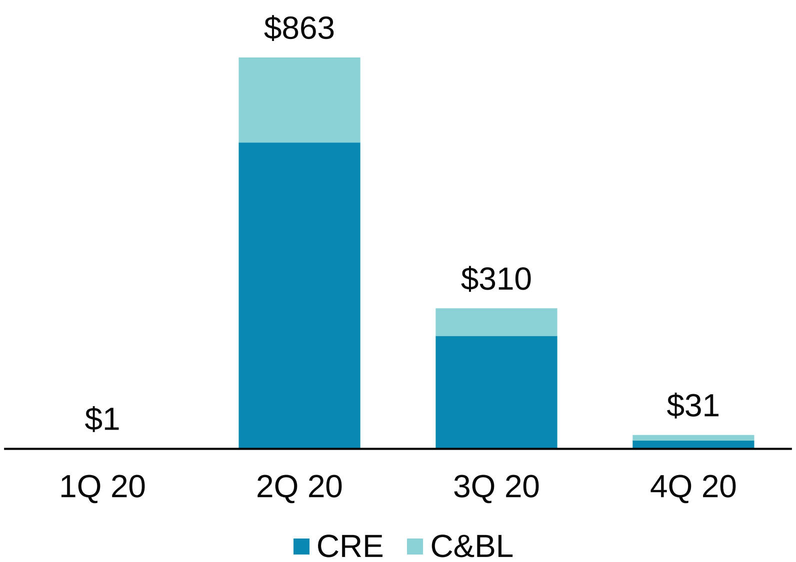
Active Commercial Loan Deferrals

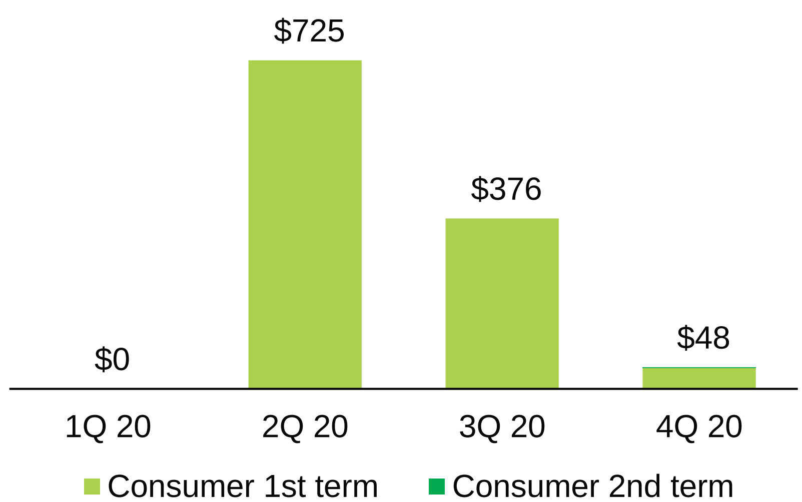
- We generally granted 90 day deferrals for our commercial customers
- Total commercial deferrals have declined approximately 96% since the end of 2Q 2020
- As of 12/31/20 commercial deferrals ($31 million) represent 0.20% of our commercial loan balances

Active Consumer Loan Deferrals

- We generally granted six month deferrals to consumers who requested assistance
- Total consumer deferrals have declined by approximately 93% since the end of 2Q 2020 and $46 million are still on their initial term
- As of 12/31/20, active consumer deferrals represent 0.54% of consumer loan balances

($ in millions)





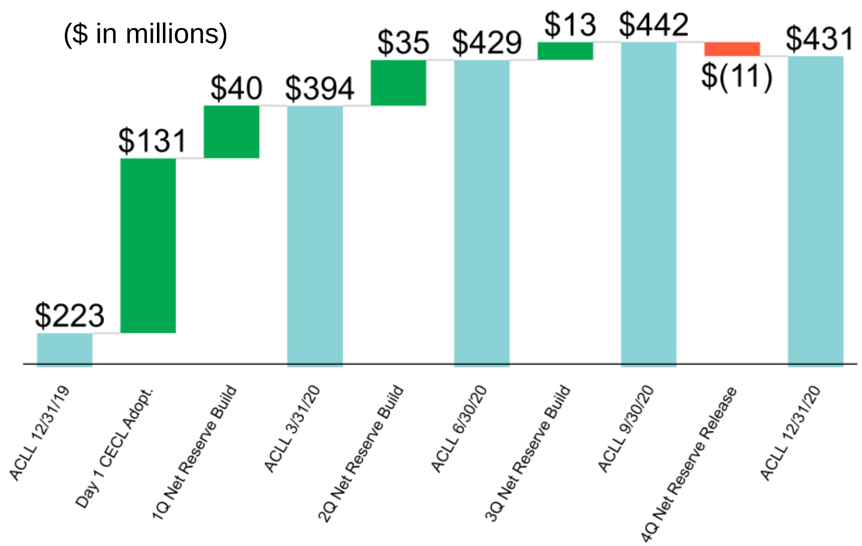
Allowance Update

ACLL[2] decreased $11 million and covered 1.76% of loan balances at the end of 2020

Fourth Quarter ACLL

- Allowance for credit losses on loans (ACLL) decreased $11 million at the end of 4Q 2020 from 3Q 2020
- ACLL to loans was 1.76%, or 1.82% excluding PPP loans
- 4Q 2020 provision of $17 million, down $26 million from 3Q 2020
- CECL forward looking assumptions based on Moody's December 2020 Baseline forecast

Loan Allowance Walkforward



Loan Category	ACLL[1] 12/31/19	Day 1 CECL Adoption[2]	Net 1Q Reserve Build[2]	Net 2Q Reserve Build[2]	Net 3Q Reserve Build[2]	Net 4Q Reserve Release[2]	ACLL[2] 12/31/20	12/31/20 ACLL[2] / Loans
C&BL - excl. Oil & Gas	$100,594	$ (8,390)	$ 29,571	$ 326	$ 27,699	$ (26,805)	$122,994	1.48%
C&BL Oil & Gas	13,226	55,460	8,880	6,025	(32,654)	2,712	53,650	18.12%
PPP Loans	-	-	-	808	160	(437)	531	0.07%
CRE - Investor	41,044	2,287	(785)	16,524	31,850	3,151	94,071	2.17%
CRE - Construction	32,447	25,814	7,428	10,585	(10,528)	12,334	78,079	4.24%
Residential Mortgage	16,960	33,215	(6,227)	(121)	(183)	(646)	42,997	0.55%
Other Consumer	19,008	22,760	777	363	(2,937)	(818)	39,154	3.84%
Total	**$223,278**	**$131,147**	**$ 39,643**	**$ 34,510**	**$ 13,408**	**$ (10,510)**	**$431,478**	**1.76%**
Total (excl. PPP Loans)	$223,278	$131,147	$ 39,643	$ 33,702	$ 13,248	$ (10,073)	$430,946	1.82%

($ in thousands)

[1] Includes ALLL and the allowance for unfunded commitments.

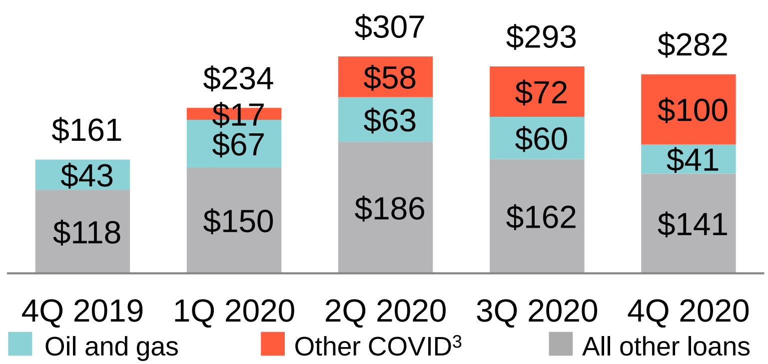
[2] Includes funded and unfunded reserve for loans, excludes reserve for HTM securities. Positive numbers reflect increases to the reserve and negative numbers reflect releases.

Credit Quality – Quarterly Trends

Credit metrics improved during 4Q 2020

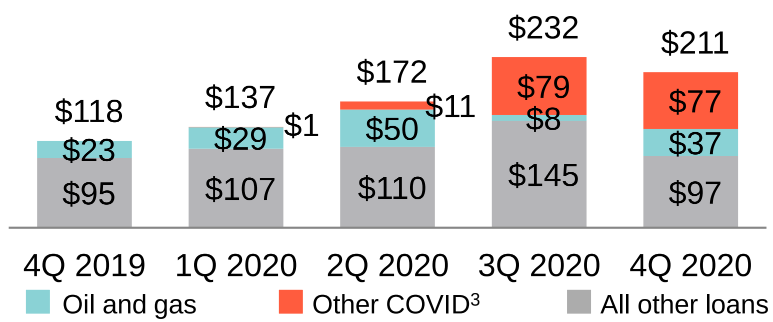
Potential Problem Loans

($ in millions)



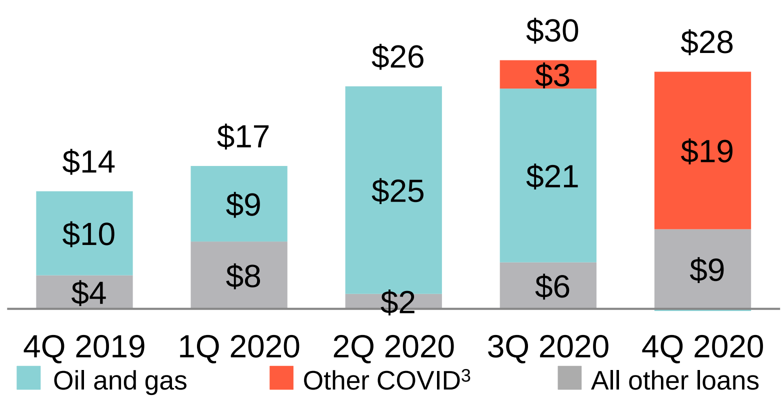
Nonaccrual Loans

($ in millions)

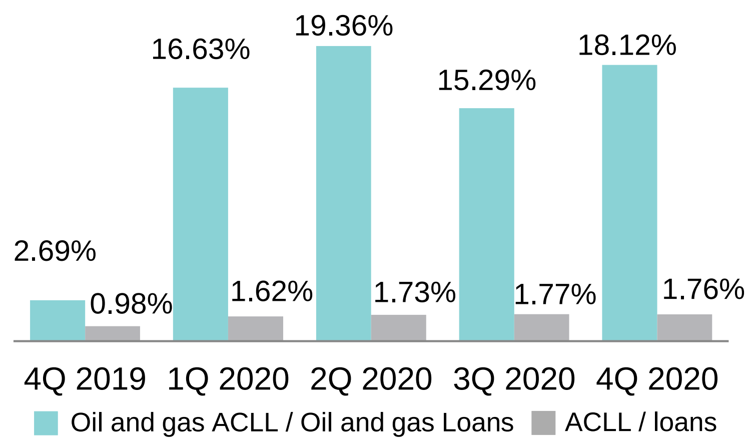


Net Charge Offs[1]

($ in millions)



ACLL[2] to Total Loans / Oil and Gas Loans



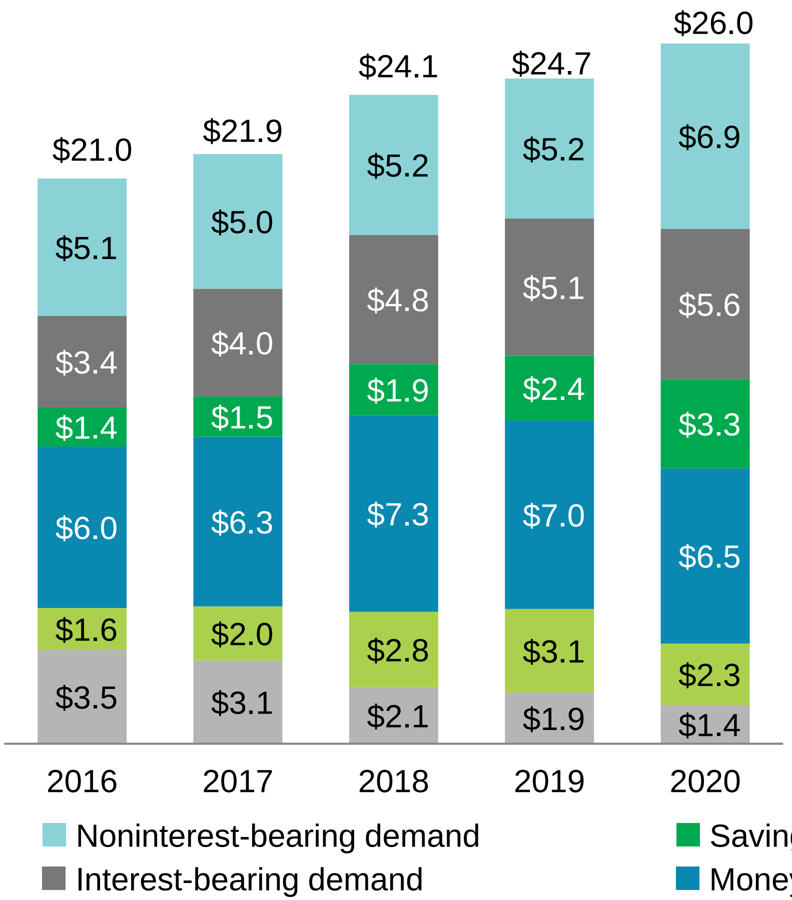
[1] Oil and gas had a net recovery of ~$710,000 in 4Q20.
[2] ACLL figures do not include the allowance for HTM securities.
[3] Please see slide 20 for more detail on our Key COVID Commercial Loan Exposures.

Annual Deposit Portfolio Trends

Low-cost core deposits have trended up while we reduced reliance on high-cost fund sources

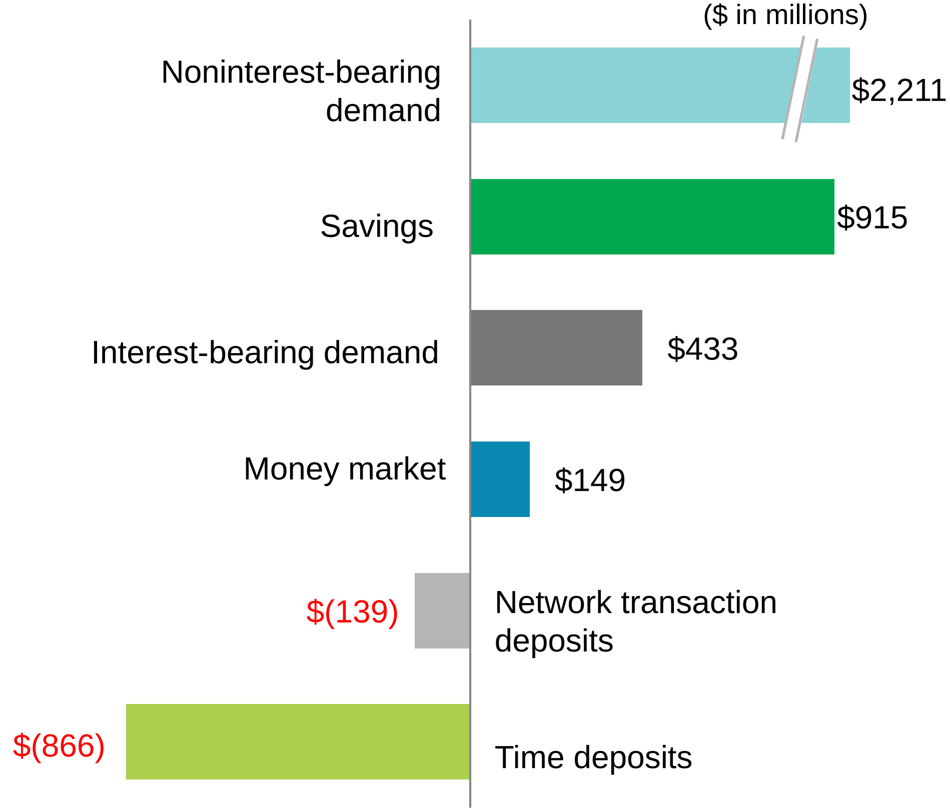
Average Annual Deposits

($ in billions)



EOP Deposit Change (2019 to 2020)

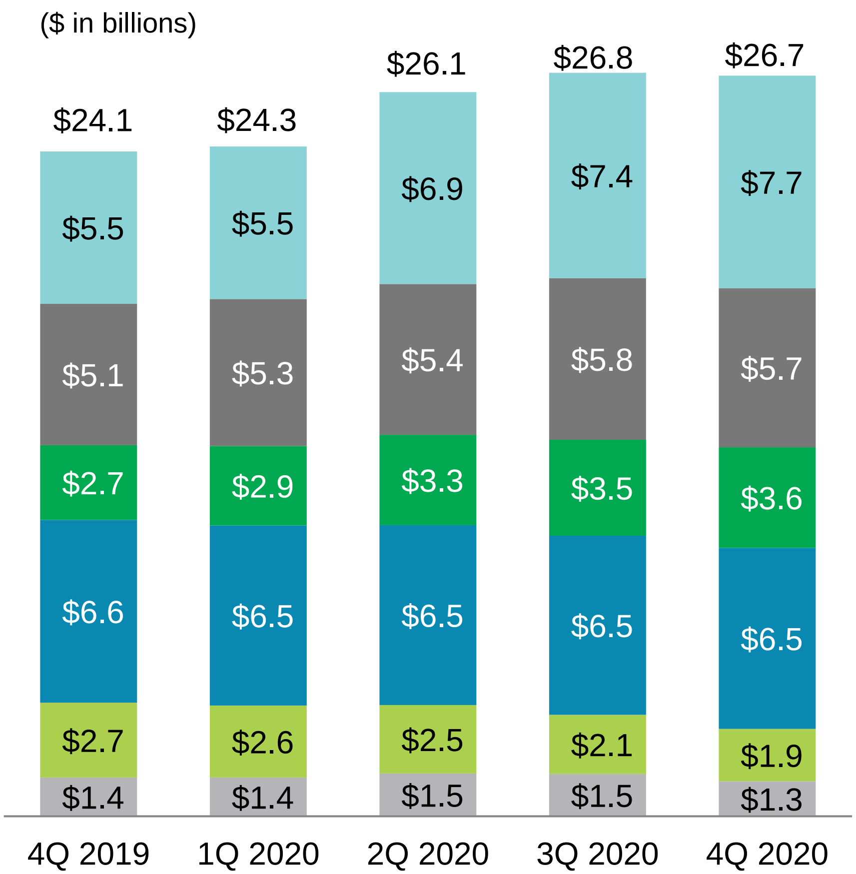
($ in millions)



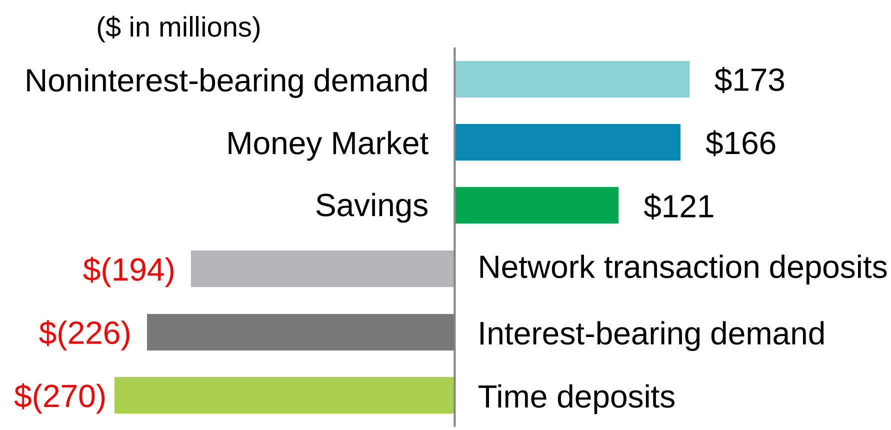
Quarterly Deposit Portfolio Trends

We continue to improve the mix of low-cost, core customer funding

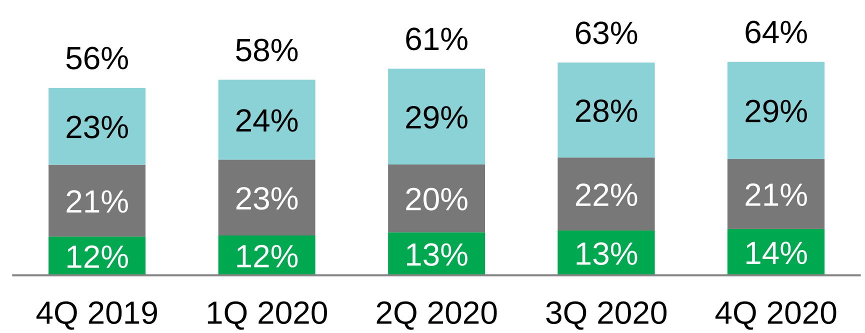
Average Quarterly Deposits



EOP Deposit Change 3Q20 to 4Q20



EOP Low-cost Deposit Mix Trend



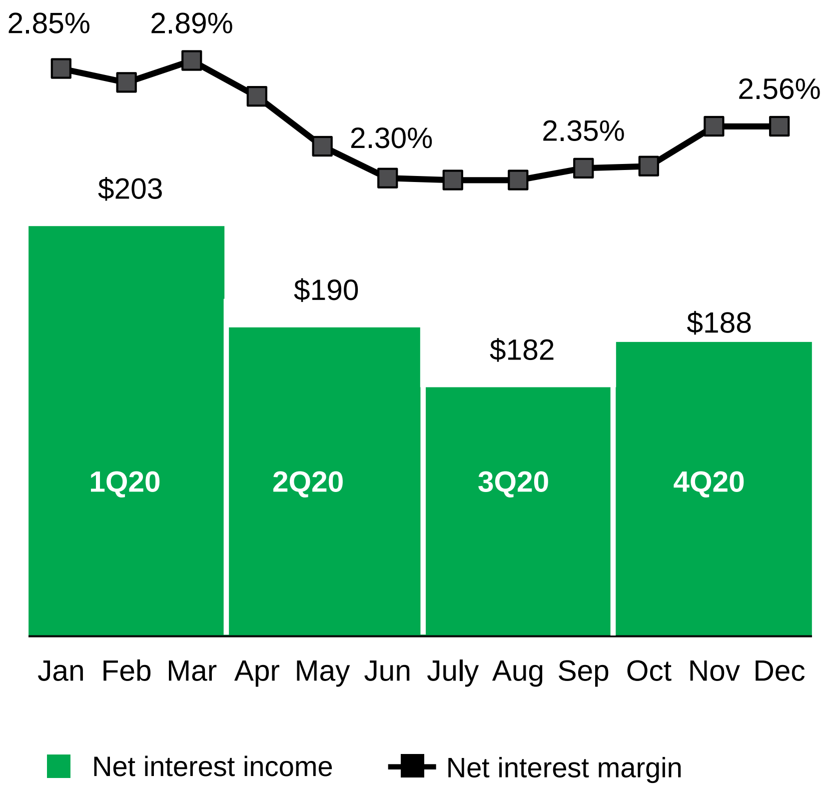
Noninterest-bearing demand
Interest-bearing demand
Savings
Money market
Time deposits
Network transaction deposits

Net Interest Income and Yield Trends

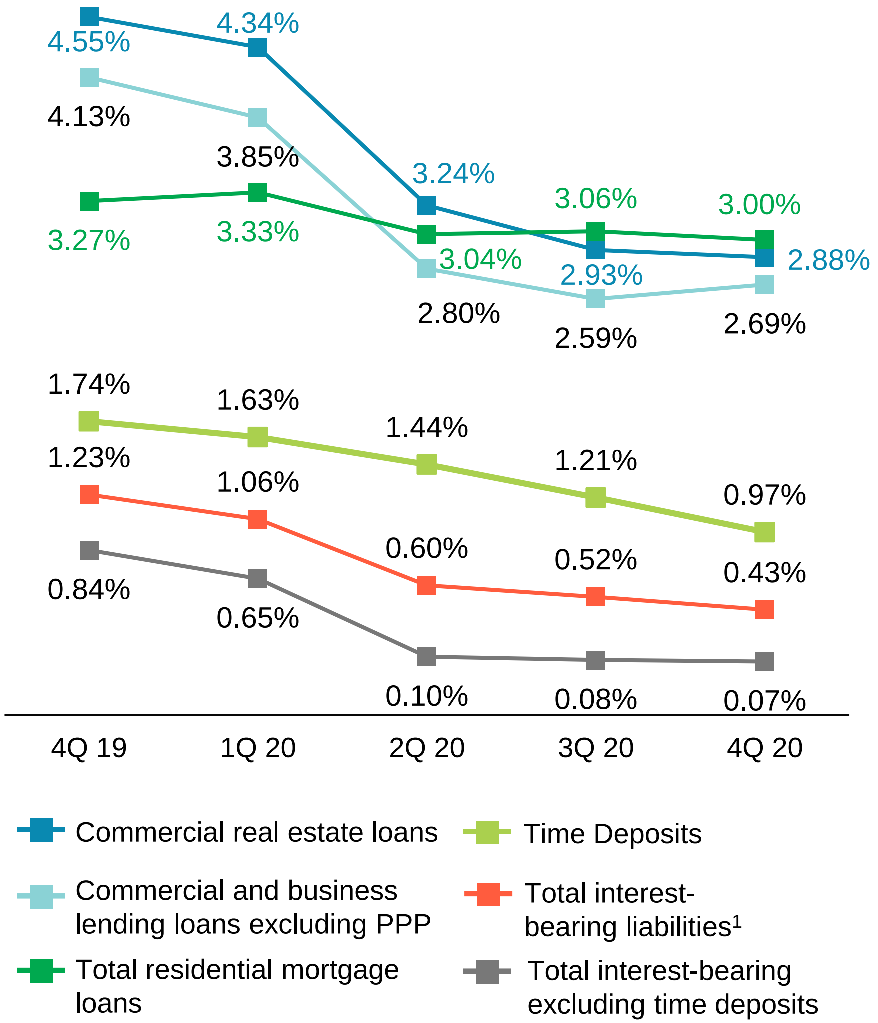
4Q 2020 margin rebounded as C&I spreads widened and liability costs declined

Net Interest Income and Net Interest Margin

($ in millions)



Average Yields



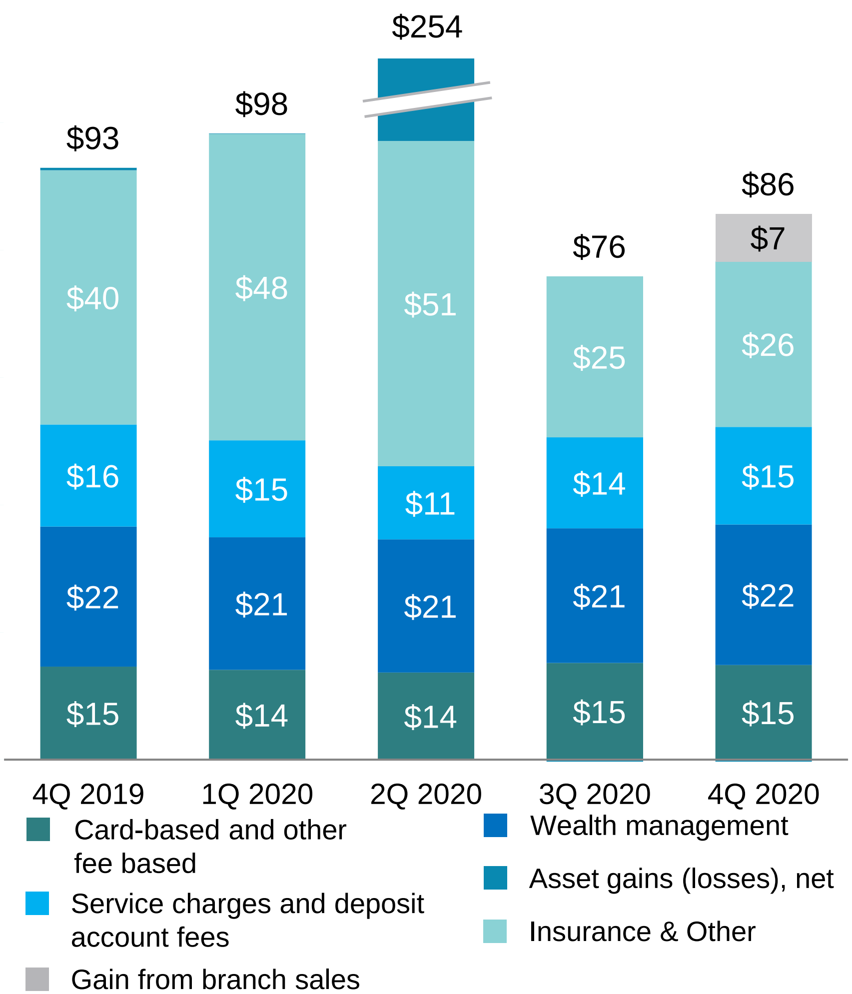
[1]Reflects approximately $1 billion repayment of FHLB advances in 3Q and $1 billion repayment of PPPLF in 4Q.

Noninterest Income Trends

The fourth quarter branch sales generated a gain of $7 million as mortgage banking and service charges grew

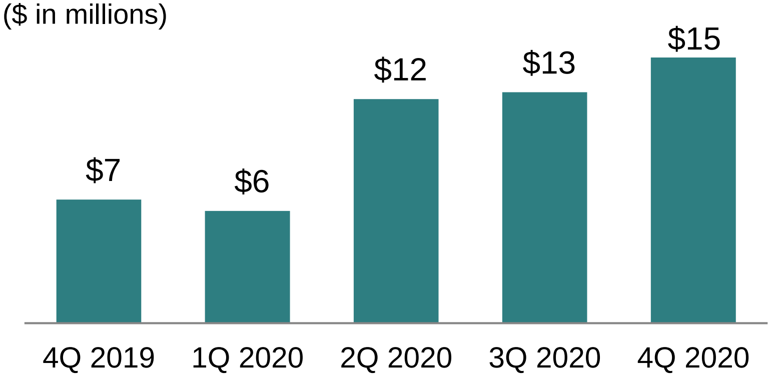
Noninterest Income Trend

($ in millions)



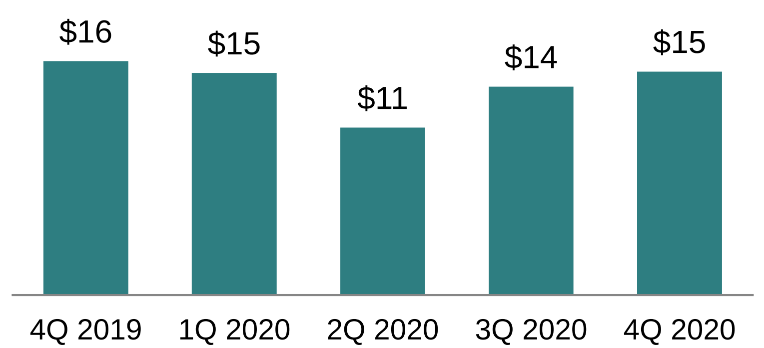
Net Mortgage Banking Income

($ in millions)



Service Charges & Deposit Account Fees

($ in millions)

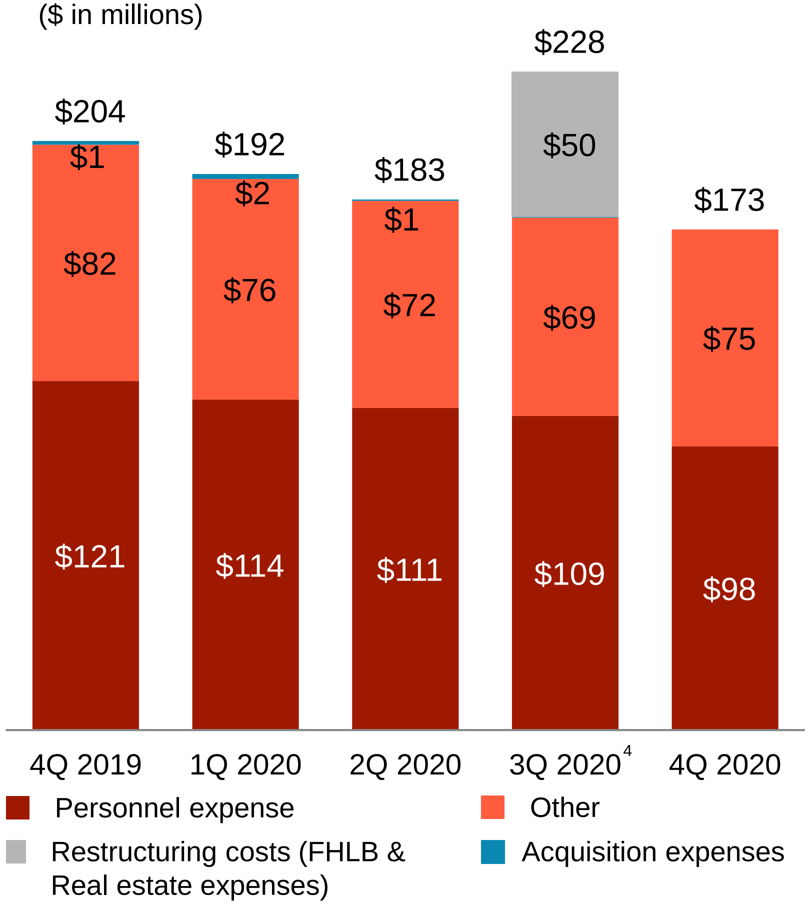


Expense Trends

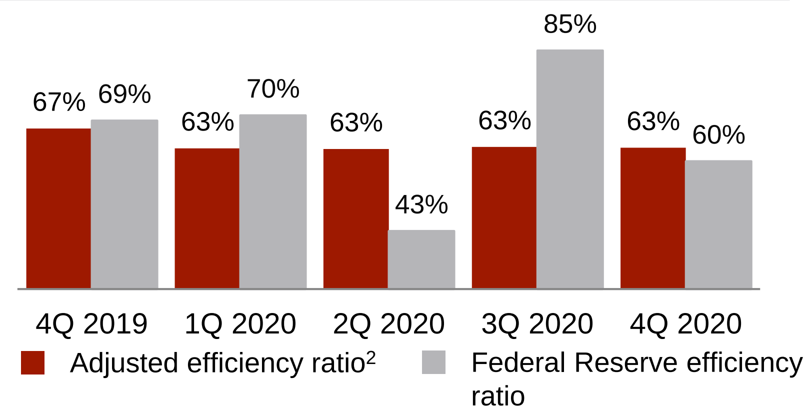
2020 cost saving initiatives reduced the expense run rate and improved the efficiency ratio

Noninterest Expense

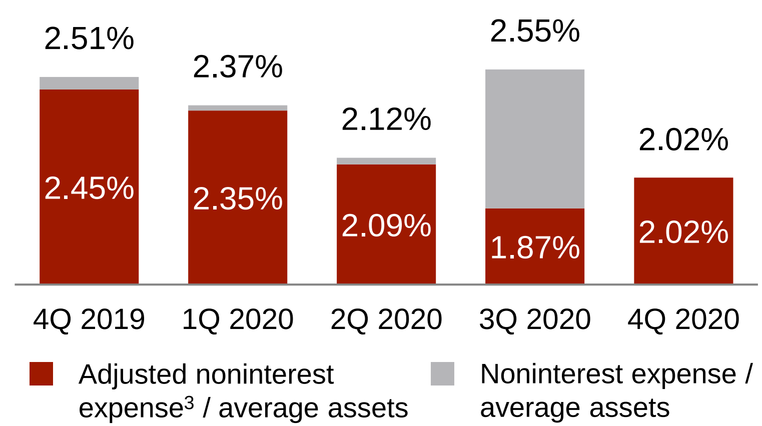
($ in millions)



Adjusted Efficiency Ratio[2]



Noninterest Expense[1] / Average Assets



[1] Annualized

[2] A non-GAAP financial measure. Please refer to the appendix for a reconciliation of the Federal Reserve efficiency ratio to the adjusted efficiency ratio.

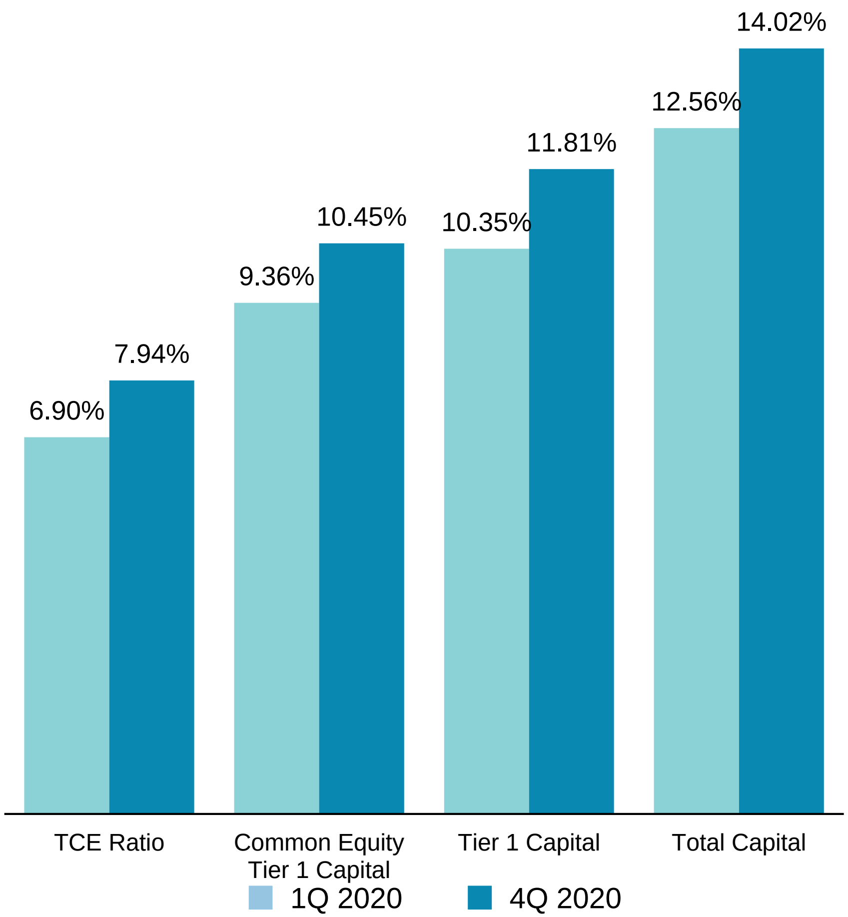
[3] A non-GAAP financial measure, adjusted noninterest expense excludes acquisition and restructuring related costs. Please refer to the appendix for a reconciliation of adjusted noninterest expense to noninterest expense.

[4] Personnel expense includes $10 million of severance which is included in the $60 million of total restructuring expenses.

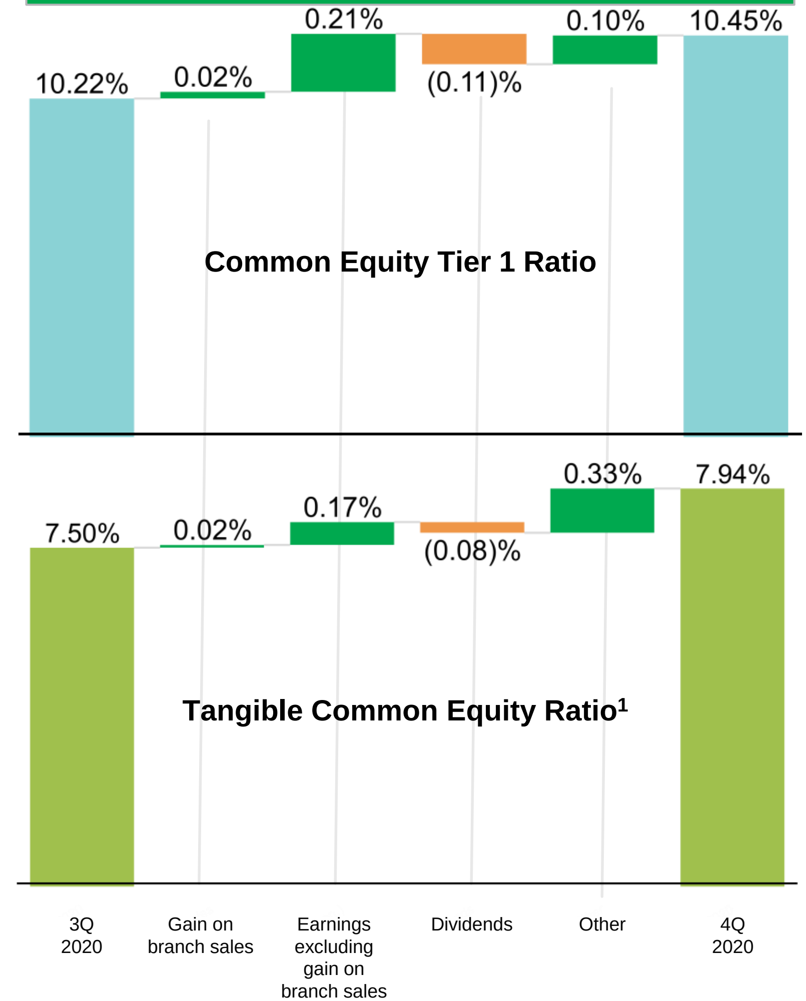
Strong Capital Position

Tangible Common Equity ratio increased 44 bps to 7.94% during 4Q 2020

Regulatory Capital Ratios



Capital Ratio Walkdowns



[1] Tangible common equity / tangible assets. This is a non-GAAP financial measure. See Appendix for a reconciliation of non-GAAP financial measures to GAAP financial measures.

2021 Outlook

We are sharing guidance for 2021

Balance Sheet Management

- Commercial loan growth, excluding PPP, of 2-4%
- Full year margin of 2.55% to 2.65%
- Target investments / total assets ratio of 15%

Expense Management

- We expect 2021 expenses of approximately $675 million
- Full-year effective tax rate expected to be between 18-21%

Fee Businesses

- Noninterest income of $280 million to $300 million
- Mortgage banking revenue expected to moderate
- Wealth management fees are expected to be approximately $6 million lower in 2021 due to the strategic sale of Whitnell

Capital & Credit Management

- Target TCE at or above 7.5%
- Target CET1 at or above 9.5%
- Provision outlook positive and expected to be $70 million or less in 2021
- Expect to resume share repurchases in 1Q 2021

APPENDIX

Total Loans Outstanding Balances as of December 31, 2020

Well diversified $24 billion loan portfolio

($ in millions)

	12/31/2020[1]	% of Total Loans
C&BL (by NAICS[2])		
Finance and Insurance[3]	$ 1,739	7.1%
Utilities	1,609	6.6%
Wholesale/Manufacturing	1,580	6.5%
Real Estate (includes REITs)	1,102	4.5%
Construction	386	1.6%
Health Care and Social Assistance	369	1.5%
Mining[4]	342	1.4%
Retail Trade	328	1.3%
Professional, Scientific, and Tech. Serv.	302	1.2%
Rental and Leasing Services	262	1.1%
Waste Management	197	0.8%
Transportation and Warehousing	186	0.8%
Accommodation and Food Services	161	0.7%
Arts, Entertainment, and Recreation	142	0.6%
Information	119	0.5%
Financial Investments & Related Activities	102	0.4%
Management of Companies & Enterprises	88	0.4%
Educational Services	68	0.3%
Public Administration	28	0.1%
Agriculture, Forestry, Fishing and Hunting	7	0.0%
Other	252	1.0%
Total C&BL	$ 9,370	38.3%

	12/31/2020[1]	% of Total Loans
CRE (by property type)		
Multi-Family	$ 2,035	8.3%
Office/Mixed	1,230	5.0%
Industrial	1,038	4.2%
Retail	979	4.0%
Single Family Construction	351	1.4%
Hotel/Motel	255	1.0%
Land	107	0.4%
Parking Lots and Garages	84	0.3%
Mobile Home Parks	16	0.1%
Other	88	0.4%
Total CRE	$ 6,183	25.3%
Consumer		
Residential Mortgage	$ 7,878	32.2%
Home Equity	707	2.9%
Student Loans	118	0.5%
Credit Cards	106	0.4%
Other Consumer	89	0.4%
Total Consumer	$ 8,899	36.4%
Total Loans	$ 24,452	100.0%

[1] All values as of period end.
[2] North American Industry Classification System.
[3] Includes mortgage warehouse financing.
[4] Includes $296 million of oil and gas loans and one $16 million fracking sand mining company loan.

Key COVID Commercial Loan Exposures[1]

Key COVID commercial loan exposures are spread across multiple industries without large concentrations

($ in millions)

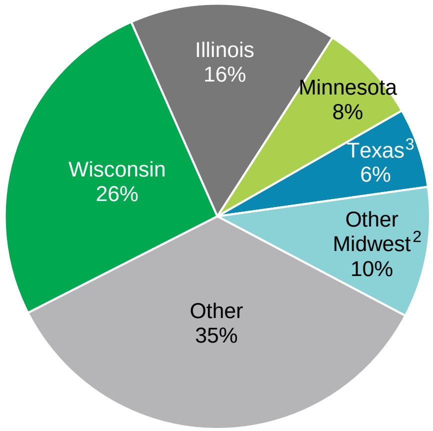
	C&BL	Utilization	CRE	Utilization	Total	% of total loans
Retailers/Shopping Centers[2]						
Retailers	$ 67.7	44%	$ 676.5	90%	$ 744.2	3.04%
Retail REITs	197.1	46%	153.5	98%	350.7	1.43%
Subtotal	264.8	46%	830.0	92%	1,094.8	4.48%
Oil & Gas						
Oil & Gas	296.0	64%	-	0%	296.0	1.21%
Subtotal	296.0	64%	-	0%	296.0	1.21%
Hotels, Amusement & Related						
Hotels	0.1	21%	255.2	89%	255.3	1.04%
Parking Lots and Garages	21.7	59%	101.8	90%	123.5	0.51%
Casinos	26.6	100%	-	0%	26.6	0.11%
Recreation & Entertainment	25.8	27%	6.4	97%	32.2	0.13%
Movie Theaters	10.0	30%	-	0%	10.0	0.04%
Subtotal	84.2	43%	363.4	90%	447.6	1.83%
Restaurants						
Full-Service	68.7	79%	14.3	100%	83.0	0.34%
Limited-Service & Other	18.7	91%	10.9	100%	29.7	0.12%
Subtotal	87.4	81%	25.2	100%	112.6	0.46%
Transportation & Other						
Transportation Services	43.7	81%	-	0%	43.7	0.18%
Fracking Sand Mining	16.3	67%	-	0%	16.3	0.07%
Subtotal	59.9	77%	-	0%	59.9	0.25%
Total	$ 792.4	56%	$ 1,218.6	91%	$ 2,011.0	8.22%

[1] As of 12/31/2020.

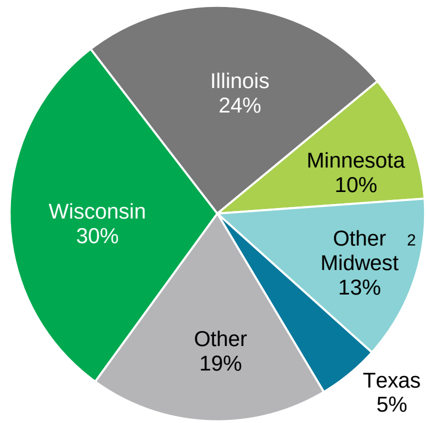
[2] C&BL excludes grocers, convenience stores, vehicle dealers, auto parts and tire dealers, direct and mail order retailers, and building material dealers; CRE excludes properties primarily anchored by grocers, self-storage facilities, and vehicle dealers.

Loan Stratification Outstandings as of 12/31/2020

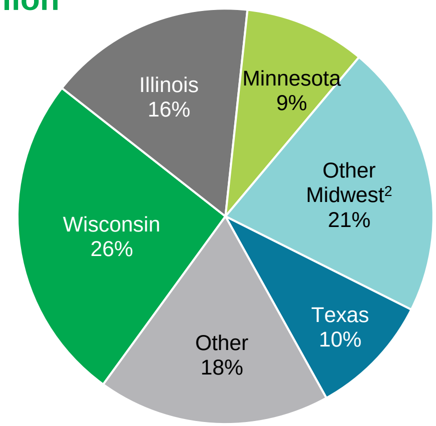
C&BL by Geography
$9.4 billion



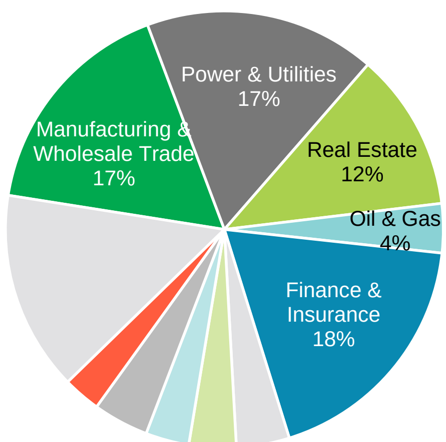
Total Loans[1]



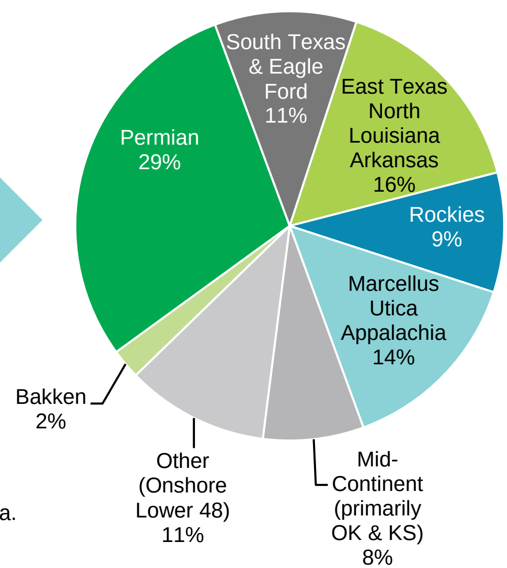
CRE by Geography
$6.2 billion



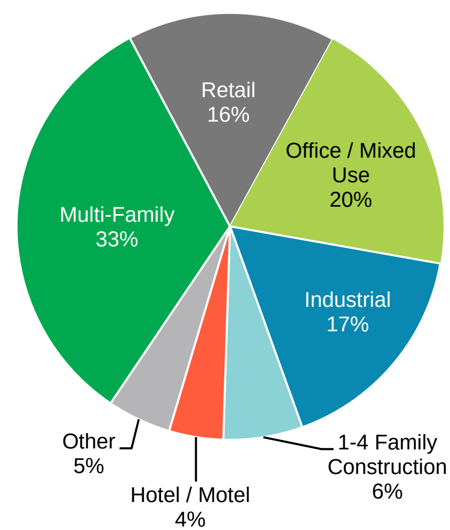
C&BL by Industry
$9.4 billion



Oil and Gas Lending[4]
$296 million



CRE by Property Type
$6.2 billion



[1]Excludes $313 million Other consumer portfolio.
[2]Other Midwest includes Missouri, Indiana, Ohio, Michigan and Iowa.
[3]Principally reflects the oil and gas portfolio.
[4]Chart based on commitments of $459 million.

Reconciliation and Definitions of Non-GAAP Items

($ in millions)

Adjusted Noninterest Expense Reconcilation[1]	4Q19	1Q20	2Q20	3Q20	4Q20
Noninterest expense	$204	$192	$183	$228	$173
Restructuring costs	0	0	0	50	0
Acquisition related costs	1	2	1	0	0
Severance / frontline pay	4	0	2	10	0
Adjusted noninterest expense	$199	$190	$181	$167	$173
Efficiency Ratio Reconciliation	**4Q19**	**1Q20**	**2Q20**	**3Q20**	**4Q20**
Federal Reserve efficiency ratio	69.14%	70.37%	43.49%	85.41%	59.68%
Fully tax-equivalent adjustment	(0.91)%	(0.96)%	(0.39)%	(1.29)%	(0.84)%
Other intangible amortization	(0.93)%	(0.95)%	(0.65)%	(0.87)%	(0.82)%
Fully tax-equivalent efficiency ratio	67.32%	68.47%	42.26%	83.25%	58.02%
Acquisition related costs adjustment	(0.45)%	(0.58)%	(0.12)%	(0.08)%	--%
Provision for unfunded commitments adjustment	0.34%	(5.18)%	(1.91)%	2.87%	3.42%
Asset gains (losses), net adjustment	0.09%	(0.02)%	22.10%	(0.11)%	(0.30)%
Branch sales	--%	--%	--%	--%	1.68%
3Q 2020 initiatives	--%	--%	--%	(22.90)%	--%
Adjusted efficiency ratio	67.30%	62.70%	62.53%	63.02%	62.83%

The efficiency ratio as defined by the Federal Reserve guidance is noninterest expense (which includes the provision for unfunded commitments) divided by the sum of net interest income plus noninterest income, excluding investment securities gains / losses, net. The fully tax-equivalent efficiency ratio is noninterest expense (which includes the provision for unfunded commitments), excluding other intangible amortization, divided by the sum of fully tax-equivalent net interest income plus noninterest income, excluding investment securities gains / losses, net. The adjusted efficiency ratio is noninterest expense, which excludes the provision for unfunded commitments, other intangible amortization, acquisition related costs, and 3Q20 initiatives, divided by the sum of fully tax-equivalent net interest income plus noninterest income, excluding investment securities gains (losses), net, acquisition related costs, asset gains (losses), net and gain on sale of branches. Management believes the adjusted efficiency ratio is a meaningful measure as it enhances the comparability of net interest income arising from taxable and tax-exempt sources and provides a better measure as to how the Corporation is managing its expenses by adjusting for acquisition related costs, provision for unfunded commitments, asset gains (losses), net, branch sales, and 3Q 2020 initiatives.

[1] This is a non-GAAP financial measure. Management believes these measures are meaningful because they reflect adjustments commonly made by management, investors, regulators, and analysts to evaluate the adequacy of earnings per common share, provide greater understanding of ongoing operations and enhance comparability of results with prior periods.

Reconciliation and Definitions of Non-GAAP Items

($ in millions)

YTD 2020 Adjusted Pre-tax Pre-Provision Income Reconciliation[1]	YTD 2020	4Q 2020
Pre-tax pre-provision income		
Income before income taxes	$327	$84
Provision for credit losses	174	17
Pre-tax pre-provision income	501	101
2020 Acquisitions, dispositions, and announced initiatives		
Sale of ABRC	$(163)	0
Gain on sale of branches	(7)	(7)
Acquisitions related to costs (noninterest expense)	2	0
Loss on prepayment of FHLB advances	45	0
Severance	10	0
Branch sales & consolidations	6	0
3Q 2020 initiatives	60	0
2020 Acquisitions, dispositions, and announced initiatives	$(108)	$(7)
Pre-tax pre-provision income excluding 2020 initiatives	$393	$94

Tangible Common Equity and Tangible Assets Reconciliation[2]	3Q20	4Q20
Common equity	$3,692	$3,737
Goodwill and other intangible assets, net	(1,178)	(1,178)
Tangible common equity	$2,513	$2,560
Total assets	$34,699	$33,420
Goodwill and other intangible assets, net	(1,178)	(1,178)
Tangible assets	$33,520	$32,242

[1] This is a non-GAAP financial measure. Management believes these measures are meaningful because they reflect adjustments commonly made by management, investors, regulators, and analysts to evaluate the adequacy of earnings per common share, provide greater understanding of ongoing operations and enhance comparability of results with prior periods.

[2] The ratio tangible common equity to tangible assets excludes goodwill and other intangible assets, net. This financial measure has been included as it is considered to be a critical metric with which to analyze and evaluate financial condition and capital strength.