Second Quarter 2022 Earnings Presentation

JULY 21, 2022





Forward-Looking Statements



Important note regarding forward-looking statements:

Statements made in this presentation which are not purely historical are forward-looking statements, as defined in the Private Securities Litigation Reform Act of 1995. This includes any statements regarding management's plans, objectives, or goals for future operations, products or services, and forecasts of its revenues, earnings, or other measures of performance. Such forward-looking statements may be identified by the use of words such as "believe," "expect," "anticipate," "plan," "estimate," "should," "will," "intend," "target," "outlook," "project," "guidance," or similar expressions. Forward-looking statements are based on current management expectations and, by their nature, are subject to risks and uncertainties. Actual results may differ materially from those contained in the forward-looking statements. Factors which may cause actual results to differ materially from those contained in such forward-looking statements include those identified in the Company's most recent Form 10-K and subsequent Form 10-Qs and other SEC filings, and such factors are incorporated herein by reference.

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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.

Second Quarter 2022 Update¹



2Q 2022 results reflect robust loan growth, expanding margins, stable deposits and resilient credit trends

Associated Banc-Corp Reports Second Quarter 2022 Net Income Available to Common Equity of \$84 Million, or \$0.56 per Common Share

Growing Loans and Expanding Margins

- \$1.2 billion of Commercial loan growth
- \$766 million of Consumer loan growth
- 1% growth in total deposits
- Net interest margin expanded by 29 bps

Resilient Credit Trends

- Negligible net charge offs
- Nonperforming assets down 22%
- Zero provision for credit losses on loans
- Appropriately reserved with ACLL to loan ratio of 1.20% as of 6/30/2022

Enhanced
Profitability
and Strong
Capital
Position

- Total net interest income + noninterest income up 11% (15% vs. 2Q 2021)
- Pre-tax income and PTPP² income of \$110 million
- ROATCE³ of 13.3%
- CET1 of 9.7%

Disciplined Expense Management

- Total noninterest expense up 5% (4% vs. 2Q 2021)
- Personnel expenses increased while occupancy and legal & professional fees both decreased
- We've continued to invest in people and reduce brick & mortar expense

¹ All figures shown on an end of period basis with comparisons to the first quarter of 2022 unless otherwise noted.

² This is a non-GAAP financial measure. Please refer to slide 6 and the appendix for a reconciliation of pre-tax pre-provision income to income before income taxes. Given the adoption of CECL and the volatility of provision during the pandemic, we believe pre-tax pre-provision income provides meaningful disclosure to investors regarding the Company's operations.

³ This is a non-GAAP financial measure. See appendix for a reconciliation of non-GAAP financial measures to GAAP financial measures.

Normalizing Commercial Growth Dynamics



Core commercial line utilization and new originations have more than offset PPP runoff

Average Total Commercial Loan Trends

Regional Commercial Line Utilization³ (%)



¹ Includes legacy asset-based lending and equipment finance balances.

² Reflected as balance growth above a 3Q 2021 legacy baseline of \$99 million.

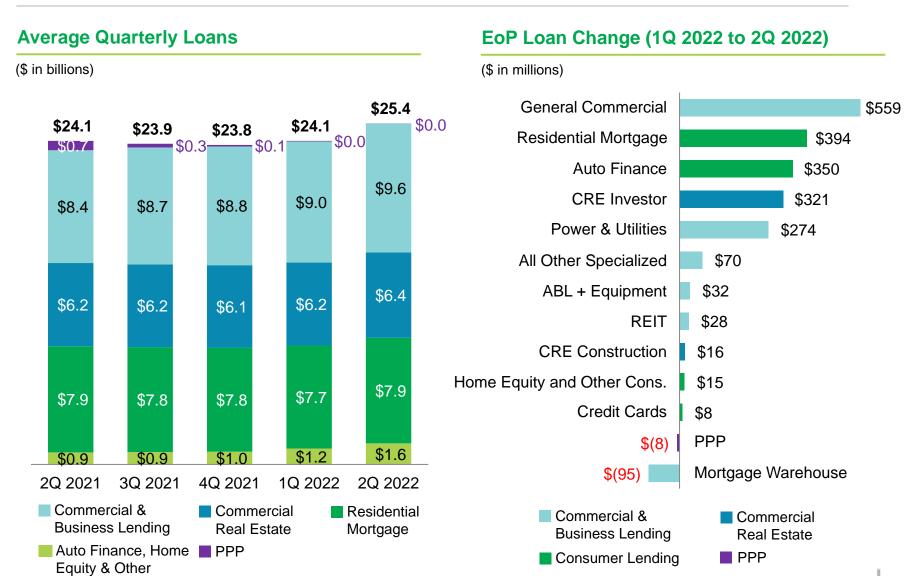
³ Outstanding Balances / Total Exposure of regional Commercial Banking revolving credit lines in Milwaukee, Madison, Chicago and Minnesota markets. Monthly historical average reflects 2017, 2018 and 2019 data.

Diversified Loan Growth

Consumer



Loan growth rebounded across the board in 2Q, led by general commercial and consumer borrowing



Our Strategic Initiatives Remain on Track



EoP Balance Trends (\$ in millions)



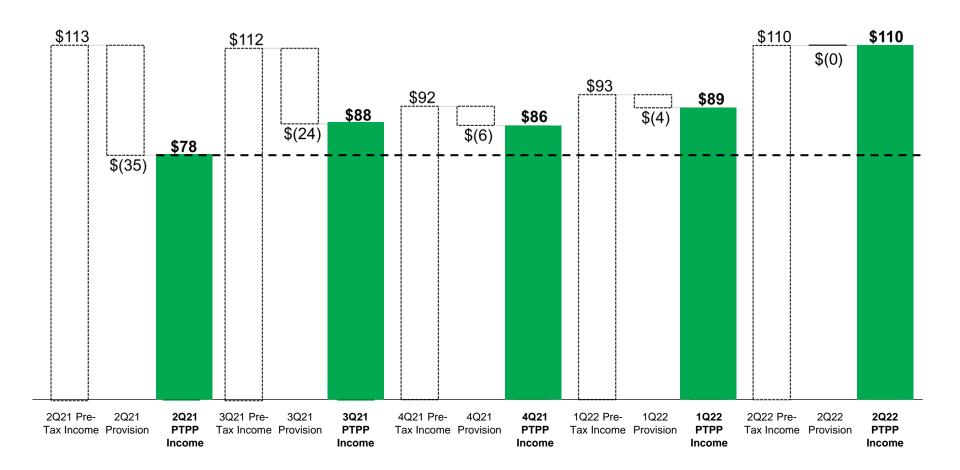
¹ Includes \$111 million of legacy baseline asset-based lending + equipment finance balances and excludes the balances captured in footnote 2.

² Reflected as balance growth above the 3Q 2021 legacy baseline of \$111 million; the baseline balances are reflected in Core Commercial above.

Pre-Tax Pre-Provision Income¹ Trends



Strong revenue growth and disciplined expense management are driving positive operating leverage

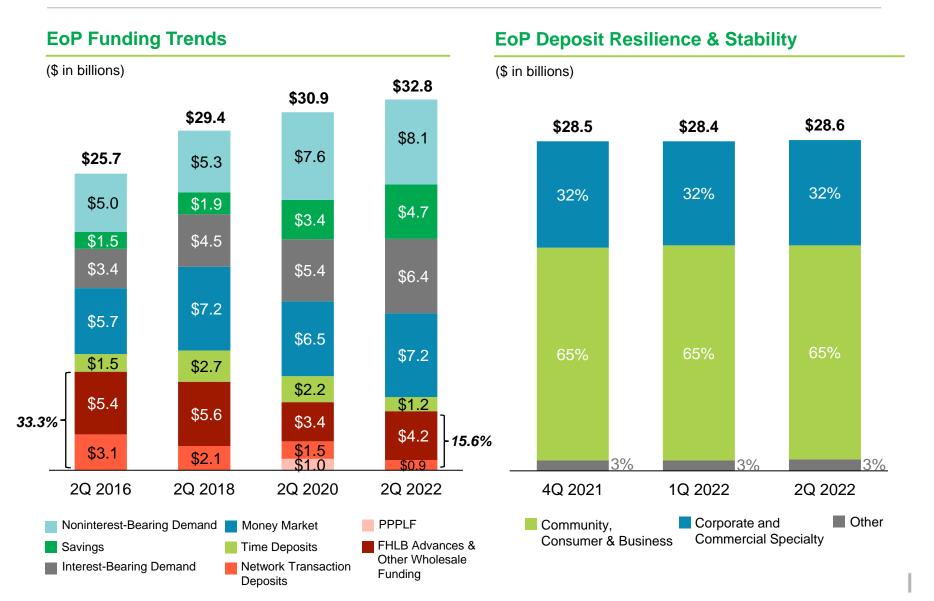


¹ This is a non-GAAP financial measure. Please refer to the appendix for a reconciliation of pre-tax pre-provision income to income before income taxes. Given the adoption of CECL and the volatility of provision during the pandemic, we believe pre-tax pre-provision income provides meaningful disclosure to investors regarding the Company's operations.

Core Funding Evolution



We have consistently grown low-cost balances over time, and our deposits have proven resilient



Poised for Further Margin Expansion

Investments and Other



ASB is structurally asset-sensitive, with strong asset betas and controlled deposit betas

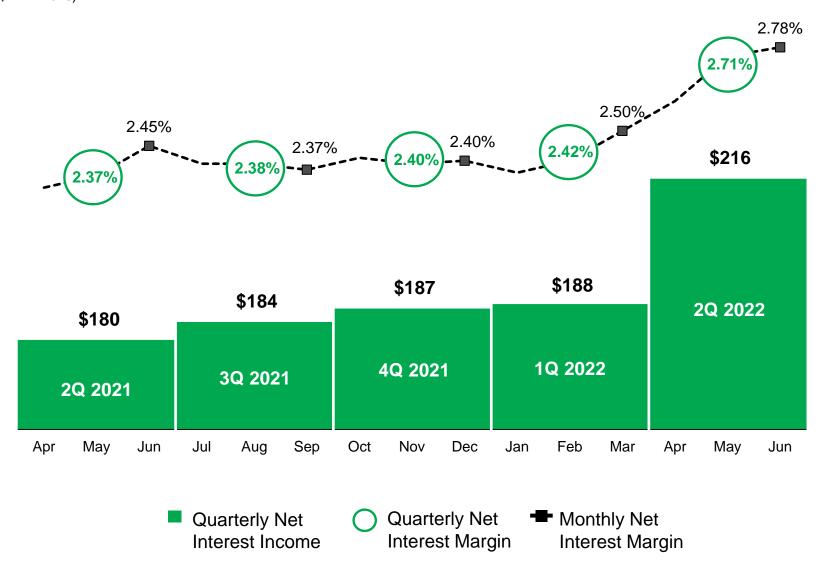
Average Yields (%) Average Yield Trends (%) 3.36 2.97 2.91 2.89 2.88 2.97 2.83 2.97 2.89 2.59 2.84 2.47 2.44 2.44 2.29 1.76 ,55% beta 1.57 1.96 0.36 0.38 0.36 0.32 0.29 0.27 0.30 0.26 0.26~13% beta1 0.15 0.07 0.06 0.05 4Q 2021 2Q 2022 3Q 2021 4Q 2021 1Q 2022 2Q 2022 4Q 2021 2Q 2022 **Total Earning Total Interest-**Commercial Real Estate Loans Total Interest-Bearing Liabilities **Assets Bearing Liabilities** Total Residential Mortgage Loans Time Deposits Commercial and Business Lending Total Interest-Bearing Deposits Loans (ex. PPP) ex. Time

¹ Beta calculated as change in quarterly average yield from 4Q 2021 to 2Q 2022 vs. change in average Fed Effective Rate. Fed data derived from St. Louis FRED database.

Net Interest Income and Net Interest Margin Trends



2Q 2022 NII and NIM continued to grow, driven by rising loan yields and controlled deposit costs



Well-Positioned for the Current Rate Cycle



Relative to the prior rate cycle, ASB is more asset-sensitive and more customer-funded



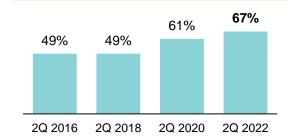
Low-Cost Deposit Franchise



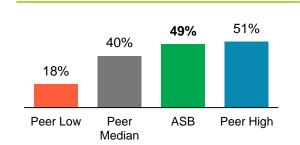
1-Yr. Cumulative Repricing Gap¹ / Total Earning Assets



EoP Low-Cost Deposit Mix Trends



1Q 2022 % of Total Deposits ≤ \$250K^{2, 3}



- Our asset sensitivity has increased from the prior rate cycle, driven by commercial loan growth and a larger mix of low-cost deposit balances
- At 3/31/2022, 91% of loans in our \$16B
 Total Commercial portfolio were floating rate, adjustable rate, re-pricing within one year, or maturing within one year²
- We have improved the mix of low-cost, core customer funding (noninterestbearing demand, interest-bearing demand and savings) and reduced our higher cost liabilities
- We've continued to grow these checking and savings balances into 2022
- Nearly half of ASB's total deposits are from households, small businesses and other insured depositors
- Our granularity reflects our emphasis on building core customer relationships throughout our footprint and businesses

¹ 1-Yr. Cumulative Repricing Gap defined as rate sensitive assets (assets that are expected to mature or reprice within 1 year) less rate sensitive liabilities (liabilities that are expected to mature or reprice within 1 year).

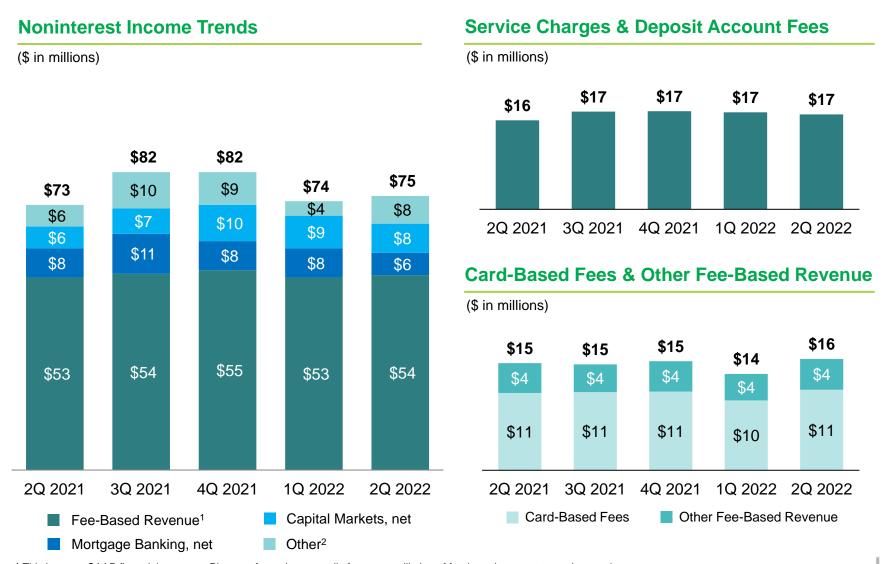
² Based on latest available data as of 1Q 2022.

³ Financial data as of March 31, 2022 sourced from S&P Capital IQ Pro. Peer group reflects 2022 proxy peer group.

Noninterest Income Trends



2Q noninterest income increased vs. the prior quarter and same period last year despite macro pressures



¹ This is a non-GAAP financial measure. Please refer to the appendix for a reconciliation of fee-based revenue to noninterest income.

²Other noninterest income primarily comprised of bank and corporate owned life insurance and asset gains (losses).

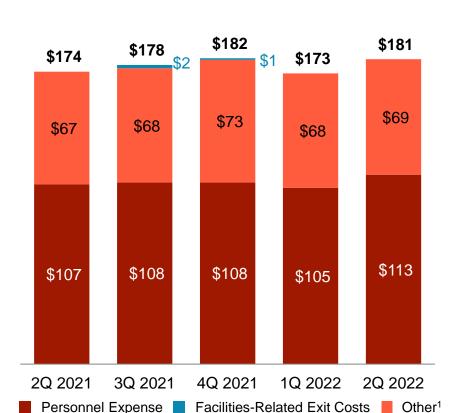
Noninterest Expense Trends



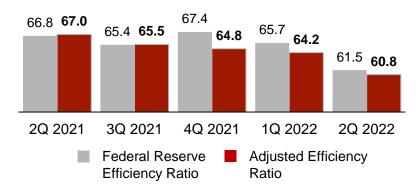
We continue to invest in people and technology while keeping expense growth below total revenue growth

Noninterest Expense Trends

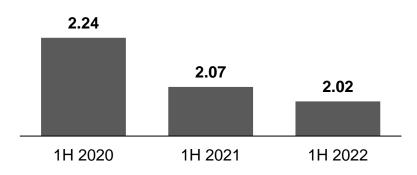
(\$ in millions)



Adjusted Efficiency Ratio² (%)



Annualized Noninterest Exp. / Avg. Assets (%)



¹ Other expenses are primarily comprised of Technology, Occupancy, Equipment, Business Development, Legal and Professional, and FDIC Assessment costs.

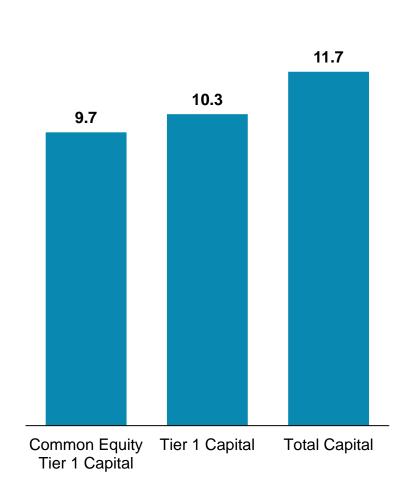
² This is a non-GAAP financial measure. The adjusted efficiency ratio is adjusted to a fully tax equivalent basis, net of acquisition and disposition costs, asset gains (losses), provision for unfunded commitments and certain other items. Please refer to the appendix for a reconciliation of the adjusted efficiency ratio to the Federal Reserve efficiency ratio.

Optimized Capital Profile

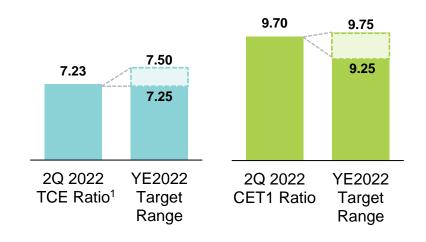


We are managing capital levels toward our target ranges, while holding TBVPS steady over the past year

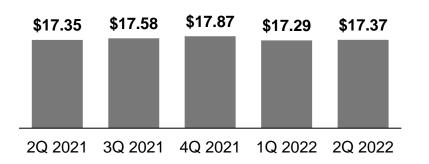
2Q 2022 Regulatory Capital Ratios (%)



Year-End 2022 Capital Targets (%)



Tangible Book Value / Share



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.

Allowance for Credit Losses on Loans (ACLL) Update

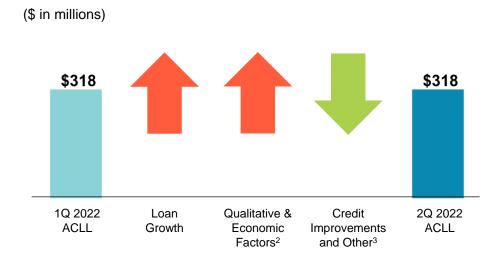


Negligible net charge offs and declining nonaccruals drove a zero provision for the quarter

2Q 2022 ACLL¹ Update

- Negligible net charge offs (YTD net recovery)
- 22% decrease in total nonperforming assets vs.
 1Q 2022, driven by a decrease in nonaccruals
- CECL forward looking assumptions based on Moody's May 2022 Baseline forecast
- ACLL flat vs. 1Q 2022, reflecting additions for loan growth and economic factors, which were fully offset by releases from declining nonperforming assets and other credit improvements of ~\$14 million

ACLL Walk-Forward (1Q 2022 to 2Q 2022)



(\$ in thousands)

| | 6/3 | 30/2021 | 3/31/2022 | | 6/30/2022 | |
|-------------------------|-----------|------------|-----------|------------|-----------|------------|
| Loan Category | ACLL | ACLL/Loans | ACLL | ACLL/Loans | ACLL | ACLL/Loans |
| C&BL (excl. PPP Loans) | \$138,187 | 1.57% | \$114,049 | 1.23% | \$122,589 | 1.20% |
| PPP Loans | 232 | 0.06% | 11 | 0.06% | 6 | 0.06% |
| CRE - Investor | 84,093 | 1.96% | 73,995 | 1.66% | 65,040 | 1.36% |
| CRE - Construction | 66,842 | 3.55% | 57,758 | 3.28% | 52,627 | 2.96% |
| Residential Mortgage | 43,230 | 0.57% | 37,101 | 0.49% | 38,851 | 0.49% |
| Other Consumer | 31,501 | 3.38% | 34,919 | 2.55% | 38,433 | 2.21% |
| Total | \$364,087 | 1.52% | \$317,835 | 1.30% | \$317,547 | 1.20% |
| Total (excl. PPP Loans) | \$363,854 | 1.55% | \$317,823 | 1.30% | \$317,541 | 1.20% |

¹ Includes funded and unfunded reserve for loans, excludes reserve for HTM securities.

² Reflects increases driven by economic uncertainty, partially offset by decreases in COVID-related qualitative factors.

³ Reflects aggregate impact of gross charge offs, net changes in risk grades and declining nonperforming asset balances.

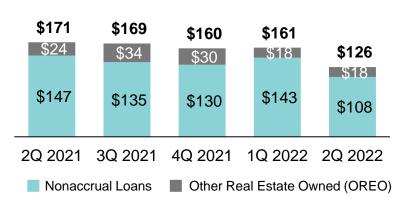
Credit Quality Trends



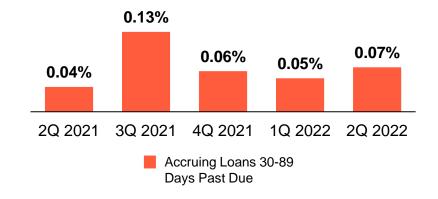
Declining nonperforming asset trends indicate a strong credit outlook

Total Nonperforming Assets

(\$ in millions)

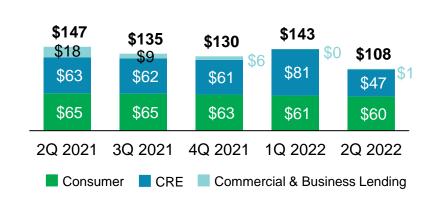


Delinquent Loans / EoP Total Loans (%)

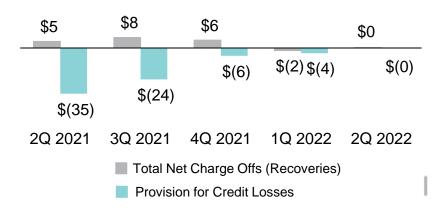


Nonaccrual Loans

(\$ in millions)



Net Charge Offs (Recoveries) and Provision



Strong Credit Fundamentals¹



ASB has built a well-diversified portfolio of high-quality credits over the past decade

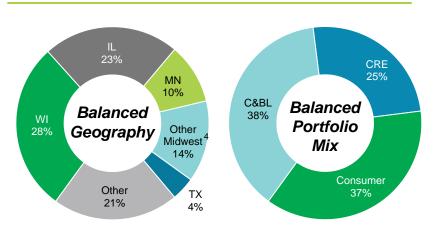
Portfolio Summary

- Focused on diversified strategies that target high-quality customers, markets and risk metrics
- Net charge offs of only \$13 million since the end of 2Q 2021, reflecting strong portfolio dynamics
- Largest single borrower < 1% of total loans;
 Top 10 largest borrowers < 4% of total loans

Core Credit Discipline

| Segment | LTV | WAvg. FICO ² |
|----------------------|-----|-------------------------|
| Residential Mortgage | 77% | 781 |
| Home Equity | 63% | 791 |
| Auto Finance | 80% | 764 |
| CRE | 64% | N/A |

Diversified Portfolios³



Net Charge Offs / Average Loans⁵



¹ All updates as of or for the period ended June 30, 2022 unless otherwise noted.

² Residential Mortgage and Home Equity FICOs reflect weighted average portfolio scores. Auto Finance FICOs reflect weighted average inception-to-date origination scores.

³ Based on outstanding loan balances as of June 30, 2022. Loans by geography excludes Other Consumer portfolio.

⁴ Other Midwest includes Missouri, Indiana, Ohio, Michigan and Iowa.

⁵ Based on annual averages. 2022 reflects YTD figures.

2022 Full-Year Outlook Updates



Previous Guidance (5/23/2022)

Updated Guidance

Balance Sheet Management¹

- Total commercial² loan growth of \$850M to \$1.1B
- Target investments/total assets ratio of ~20%
- We expect to maintain wholesale funding in the range of 10% to 15% of total funding
- Total commercial² loan growth of ~\$1.7B
- Target investments/total assets ratio of ~18%
- We expect to maintain wholesale funding of ~15% of total funding

Net Interest Income & Noninterest Income

- Net interest income (GAAP) of \$855M+
 - Assumes a 25bp increase at each remaining FOMC meeting this year and interest-bearing deposit betas of 30% to 40% for this rate cycle
- Net interest income (GAAP) of \$890M+
 - Assumes a 75bp increase in July and a 25bp increase at each remaining FOMC meeting this year; with interest-bearing deposit betas of 30% to 40% for this rate cycle
- Total net interest income & noninterest income of \$1.150B+
- Total net interest income & noninterest income of \$1.180B+

Expense Management

- Approximately \$725M to \$740M of noninterest expense
- Effective tax rate of 19% to 21%

- Approximately \$730M to \$740M of noninterest expense
- Effective tax rate of ~21%

Capital Targets

- Target TCE at 7.25% to 7.50%
- Target CET1 at or above 9.5%

- Target TCE range of 7.25% to 7.50%
- Target CET1 range of 9.25% to 9.75%

¹ Growth to end of period as compared to 12/31/2021.

² Includes asset-based lending & equipment finance.







Appendix

Additional Second Quarter 2022 Loan Trends

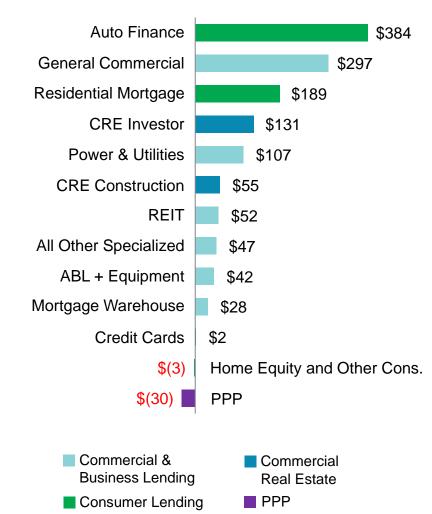


EoP Quarterly Loan Trends

(\$ in billions)



Average Loan Change (1Q 2022 to 2Q 2022)



Total Loans Outstanding Balances as of June 30, 2022



Well-diversified \$26 billion loan portfolio

| (+) | | | |
|--|------------|----------------------|------------|
| | 0/00/00001 | | % of Total |
| | 6/3 | 30/2022 ¹ | Loans |
| C&BL (by NAICS ²) | | | |
| Utilities | \$ | 2,101 | 7.9% |
| Manufacturing & Wholesale Trade | | 2,036 | 7.7% |
| Real Estate (includes REITs) | | 1,751 | 6.6% |
| Mortgage Warehouse | | 899 | 3.4% |
| Finance & Insurance | | 460 | 1.7% |
| Retail Trade | | 442 | 1.7% |
| Construction | | 422 | 1.6% |
| Health Care and Social Assistance | | 338 | 1.3% |
| Rental and Leasing Services | | 294 | 1.1% |
| Professional, Scientific, and Tech. Serv. | | 267 | 1.0% |
| Transportation and Warehousing | | 218 | 0.8% |
| Waste Management | | 178 | 0.7% |
| Accommodation and Food Services | | 109 | 0.4% |
| Information | | 103 | 0.4% |
| Financial Investments & Related Activities | | 89 | 0.3% |
| Arts, Entertainment, and Recreation | | 79 | 0.3% |
| Management of Companies & Enterprises | | 59 | 0.2% |
| Mining | | 53 | 0.2% |
| Educational Services | | 30 | 0.1% |
| Public Administration | | 29 | 0.1% |
| Agriculture, Forestry, Fishing and Hunting | | 1 | 0.0% |
| Other | | 228 | 0.9% |
| Total C&BL | \$ | 10,185 | 38.4% |

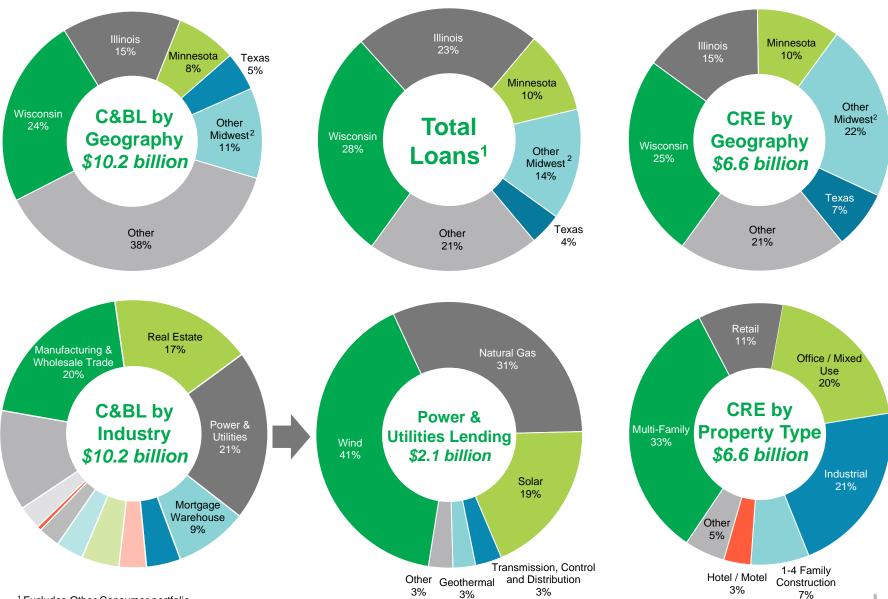
| | | | % of Total |
|----------------------------|-----|----------------------|------------|
| | 6/3 | 30/2022 ¹ | Loans |
| CRE (by property type) | | | |
| Multi-Family | \$ | 2,165 | 8.2% |
| Industrial | | 1,413 | 5.3% |
| Office/Mixed | | 1,287 | 4.9% |
| Retail | | 692 | 2.6% |
| Single Family Construction | | 474 | 1.8% |
| Hotel/Motel | | 220 | 0.8% |
| Land | | 78 | 0.3% |
| Mobile Home Parks | | 52 | 0.2% |
| Parking Lots and Garages | | 19 | 0.1% |
| Other | | 167 | 0.6% |
| Total CRE | \$ | 6,566 | 24.8% |
| | | | |
| Consumer | | | |
| Residential Mortgage | \$ | 8,003 | 30.2% |
| Home Equity | | 593 | 2.2% |
| Auto Finance | | 848 | 3.2% |
| Credit Cards | | 119 | 0.4% |
| Student Loans | | 91 | 0.3% |
| Other Consumer | | 90 | 0.3% |
| Total Consumer | \$ | 9,744 | 36.8% |
| | | | |
| | | | |
| Total Loans | \$ | 26,495 | 100.0% |

¹ All values as of period end.

² North American Industry Classification System.

Loan Stratification Outstanding Balances as of June 30, 2022





¹ Excludes Other Consumer portfolio.

² Other Midwest includes Missouri, Indiana, Ohio, Michigan and Iowa.

Reconciliation and Definitions of Non-GAAP Items



| Pre-tax Pre-Provision Income Reconciliation ¹ | 2Q 2021 | 3Q 2021 | 4Q 2021 | 1Q 2022 | 2Q 2022 |
|--|---------|---------|---------|---------|---------|
| Income (loss) before income taxes | \$113 | \$112 | \$92 | \$93 | \$110 |
| Provision for credit losses | (35) | (24) | (6) | (4) | _ |
| Pre-tax pre-provision income | \$78 | \$88 | \$86 | \$89 | \$110 |

| Average Tangible Common Equity Reconciliation ² | 2Q 2022 |
|--|---------|
| Common equity | \$3,744 |
| Goodwill and other intangible assets, net | (1,160) |
| Tangible common equity | \$2,584 |

| Selected Trend Information ³ | 2Q 2021 | 3Q 2021 | 4Q 2021 | 1Q 2022 | 2Q 2022 |
|--|---------|---------|---------|---------|---------|
| Wealth management fees | \$2 | 3 \$22 | \$23 | \$22 | \$21 |
| Service charges and deposit account fees | 1 | 6 17 | 17 | 17 | 17 |
| Card-based fees | 1 | 1 11 | 11 | 10 | 11 |
| Other fee-based revenue | | 4 4 | 4 | 4 | 4 |
| Fee-based revenue | 5 | 3 54 | 55 | 53 | 54 |
| Other | 2 | 0 28 | 26 | 22 | 22 |
| Total noninterest income | \$7 | 3 \$82 | \$82 | \$74 | \$75 |

¹ Management believes this measure is meaningful because it reflects 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 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.

³ These financial measures have been included as they provide meaningful supplemental information to assess trends in the Corporation's results of operations.

Reconciliation and Definitions of Non-GAAP Items



(\$ in millions)

| Efficiency Ratio Reconciliation | 2Q 2021 | 3Q 2021 | 4Q 2021 | 1Q 2022 | 2Q 2022 |
|---|---------|---------|---------|---------|---------|
| Federal Reserve efficiency ratio | 66.81% | 65.43% | 67.36% | 65.71% | 61.53% |
| Fully tax-equivalent adjustment | (1.07)% | (1.01)% | (1.10)% | (1.13)% | (0.98)% |
| Other intangible amortization | (0.87)% | (0.83)% | (0.82)% | (0.84)% | (0.76)% |
| Fully tax-equivalent efficiency ratio | 64.88% | 63.61% | 65.46% | 63.76% | 59.80% |
| Provision for unfunded commitments adjustment | 2.14% | 1.48% | 0.55% | 0.37% | 0.67% |
| Asset gains (losses), net adjustment | % | 1.29% | 0.24% | 0.05% | 0.34% |
| Acquisitions, branch sales, and initiatives | 0.01% | (0.91)% | (1.43)% | % | % |
| Adjusted efficiency ratio ¹ | 67.02% | 65.46% | 64.82% | 64.18% | 60.82% |

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 announced initiatives, divided by the sum of fully tax-equivalent net interest income plus noninterest income, excluding investment securities gains (losses), net, asset gains (losses), net, and gain on sale of branches, net. 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 announced initiatives.

| Tangible Common Equity and Tangible Assets Reconciliation ² | 2Q 2021 | 3Q 2021 | 4Q 2021 | 1Q 2022 | 2Q 2022 |
|--|----------|----------|----------|----------|----------|
| Common equity | \$3,820 | \$3,802 | \$3,832 | \$3,755 | \$3,766 |
| Goodwill and other intangible assets, net | (1,167) | (1,165) | (1,163) | (1,161) | (1,159) |
| Tangible common equity | \$2,652 | \$2,636 | \$2,669 | \$2,594 | \$2,608 |
| | | | | | |
| Total assets | \$34,153 | \$34,440 | \$35,104 | \$34,956 | \$37,236 |
| Goodwill and other intangible assets, net | (1,167) | (1,165) | (1,163) | (1,161) | (1,159) |
| Tangible assets | \$32,985 | \$33,274 | \$33,941 | \$33,795 | \$36,077 |

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.