4th Quarter 2023 Update

Count on more®

Kansas City, MO

January 30, 2024

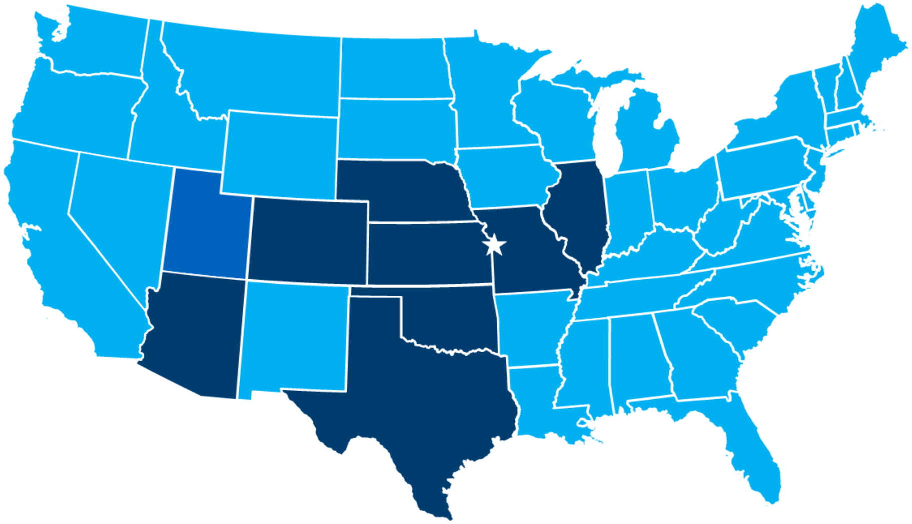
Presentation Index

Please refer to the Forward-Looking Statements on slide 45 for important disclosures about information contained in this presentation.

Corporate Overview

Highlights

Founded	1913
Ticker	UMBF - Nasdaq
Market Cap	$4.1 B
Total Assets	$44.0 B
Gross Loans	$23.2 B
Total Deposits	$35.8 B
Private Wealth Customer Assets (1)	$16.3 B
Institutional Assets Under Administration (AUA) (2)	$447.2 B
Common Equity Tier 1 Capital Ratio	10.94%
Total Risk Based Capital Ratio	12.85%
Return on Equity	9.52%
Operating ROTCE (3)	16.62%
Operating ROTCE ex. AOCI (3)	13.05%
Net Charge-offs / Average Loans - 4Q'23	0.02%
Net Charge-offs / Average Loans - Full Year '23	0.05%
NPLs / Total Loans	0.06%
ACL / Total Loans	0.95%
Fee Income / Revenue	37.8%



UMB Financial Corporation Headquarters

UMB Bank Presence & Expansion

- 90 banking centers
- 235 ATMs

National Presence

- Asset-based lending
- Healthcare Services
- Private Wealth Management & Personal Trust
- Specialized Lending Verticals
- Corporate Trust
- Capital Markets (4)
- Fund Services

International Presence

- UMBF Trust & Agency Services – Dublin, Ireland

At, or for, 3 months ended 12/31/23. (1) Includes $12.3B managed assets & $4.0B in Assets Under Administration for Private Wealth customers; (2) Includes AUA in Fund Services/custody, corporate trust and Healthcare Services; (3) Operating ROTCE & operating ROTCE ex. AOCI are non-GAAP measures. See reconciliation on slide 51; (4) UMB Bank, n.a. Capital Markets Div.

Business Model
Our Diverse Foundation

Commercial & Personal Banking Services

4Q'23 Revenue: $236.3 million. 4Q'23 Average Deposits: $19.5 billion

Commercial

Average loans: $19.5B (1)

Average deposits: $13.4B

- C&I lending
- Small business lending
- CRE & Construction lending
- Treasury management
- Merchant payments
- Specialized Expertise:
  - Agribusiness
  - Energy
  - Practice finance
  - Mezzanine debt & equity investments
  - Aviation
  - Asset-based lending
  - Beverage

Consumer

Average loans: $3.1B (1) (2)

Average deposits: $6.1B

- Retail deposit & lending services through 90 branches and online
- Private banking services
- Consumer mortgage

Private Wealth

AUM = $12.3B

AUA = $4.0B

- Financial planning
- Investment management
- Wealth solutions
- Business succession and exit planning
- Trust & custody
- Estate planning
- Direct private equity investment access

Institutional Banking Services

4Q'23 Revenue: $134.5 million. 4Q'23 Average Deposits: $11.4 billion

Institutional Banking provides solutions for the entire marketplace; $447.2 billion in AUA (3)

Corporate Trust

- Bond trustee, paying agent & escrow services

Institutional Custody

- Domestic & international custody services

Fund Services

- Fund accounting, fund administration & transfer agency
- Alternative investment servicing

Specialty Trust & Agency Solutions

- Default workout & successor trustee services
- Aviation, ABS & loan agency services

Capital Markets Division (4)

- Fixed income sales & trading
- Public finance
- Asset / liability management services

Investor Solutions

- Banking, cash management & specialty services for financial firms

Healthcare Services

- Health savings & benefit spending accounts
- Healthcare payment solutions

Balances at, or for quarter ended, 12/31/23 (1) Loan balances exclude credit card; (2) Includes consumer plus residential real estate loans; (3) Includes AUA in Fund Services/custody, corporate trust & Healthcare Services; (4) Products offered through UMB Bank Capital Markets Div.: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED.

Beyond Financials
Our Culture

UMB

Our Vision

the
unparalleled customer experience

Our Commitment

An unwavering commitment to doing more for our customers.

Customers First
We do the unparalleled to create an environment that consistently exceeds the expectations of our customers.

Integrity & Trust
We demonstrate our uncompromising honesty and integrity to earn the trust of everyone we serve.

Performance & Strength
We achieve sustainable greatness by delivering on our promise, remaining independent and maintaining financial soundness.

Associate Spirit
We rely upon our people and their collective attitude and skills to differentiate us from our competitors.

Inclusion & Diversity
We believe an inclusive and diverse culture energizes the workplace and ignites innovation.

Beyond Financials
Our Culture

Creating an unparalleled customer experience requires a culture where our people feel part of something more, something bigger. We foster this experience through our policies, our business decisions and our expectations of each associate.

MORE HEART

Whether it's having a heart for each other, our customers or our communities, we support work through inclusive policies and empowering people to create fulfilling lives in and out of the workplace.

MORE TRUST

Our associates have confidence they will be encouraged and expected to do the right thing at all times — no matter what. We're focused on setting clear expectations and a leadership team who is accessible and transparent.

MORE OPPORTUNITY

Our goal is to grow existing strengths and build new skills. We're committed to empowering our workforce to make an impact and achieve their goals through open conversations and providing the tools to develop potential.

the unparalleled customer experience

Beyond Financials
Our Commitment to Corporate Citizenship

Inclusion & Diversity

We want our company to be as diverse as the world we live in.

- As an early CEO Action for Diversity and Inclusion signatory, we regularly review progress of our inclusion strategy with executives and our board of directors
- Eight Business Resource Groups (BRGs) help us understand the needs of our associates, customers and communities and turn empathy into action
- In 2022, 36% of all UMB hires were people of color, 56% were women and 6% were veterans
- Diversity among executive leadership team – 53%; 8 of 15 members

Strong Corporate Governance

Effective governance practices preserve the confidence and trust of our stakeholders.

- 11 person board of directors, with 10 independent members, a lead independent director, and 100% independence on board committees
- 36% board diversity
- Deliberate selection criteria which includes diversity standards in the board nomination process
- Robust risk oversight with distinct risk management committees: enterprise risk, asset and liability, and credit
- Board oversight of the executive ESG Committee

Community Impact

Associate volunteerism and corporate philanthropy help build strong community partnerships.

- $9.0 million in company donations and sponsorships in 2022, supporting underserved communities' housing needs, small business efforts, education and emerging talent
- Nearly 1,000 participants in our workplace giving campaign supporting more than 700 qualified nonprofits with pledges of $65k
- Associates receive 16 hours of paid Volunteer Time Off (VTO) annually, and participants logged nearly 7,500 hours of volunteer time, despite some continuing impact from the pandemic
- School of Economics provides interactive, educational experiences through curriculum-based field trips for students each year. UMB leases space in downtown KC to the nonprofit for $1. 250 UMB volunteer hours reached more than 4,500 students in 2022

Efficient & Sensible Resource Use

UMB recognizes the undeniable importance of sustainable business practices.

- 80 UMB buildings use automated systems to conserve energy, with a goal to include all UMB properties by year-end 2023
- More than 192k Kilowatt hours generated from solar panels
- Exterior lighting upgrades to LED saved nearly 678k Kilowatt hours; committed to convert all locations by year-end 2023
- 2022 recycling efforts produced nearly 15k pounds of comingled recycling, 8k pounds of cardboard and 360 pounds of recycled batteries
- Beehives housed at a Denver branch support the local honeybee population, with a peak population of 210k bees. In 2022, we harvested 300 pounds of edible honey and 6 pounds of wax

Read our 2022 **Corporate Citizenship & ESG Report at UMB.com/ESGreport; 2023 update coming soon**

Our Investment Thesis

Salt Lake City, UT

Investment Thesis
Our Opportunity

Runway for Growth

Solid capital levels and ample liquidity sources

- Strong regulatory capital ratios
- Access to multiple contingent funding sources

Diverse deposit base across multiple lines of business, customer segments and geographies

- No one commercial sector represents more than 5% of total average deposits
- Long-tenured relationships: Clients that have been with us for more than 15 years hold ~47% of deposit balances (1)

Track record of strong loan growth – opportunities remain

- Underpenetrated across our geographic footprint, focused on market share gains
- Underpenetrated vertically on an asset class basis; built out specialized teams

Flexible balance sheet well-positioned for changing interest rate environments

- Above peer earning asset growth
- Lower loan-to-deposit ratio provides flexibility
- 31% of average deposit balances in DDA
- Variable asset base
- > $1.6 billion of securities cash flow expected within 12 months (2)

Differentiated revenue profile and growing fee income

- Revenue from diverse lines of business and verticals provide a natural hedge in all rate environments
- Lower-than-peer reliance on mortgage and NSF/OD revenue

Time-tested underwriting philosophy

- Unwavering credit standards
- Long-tenured credit team – average of 23 years with UMB
- Chief Credit Officer – 38 years with UMB

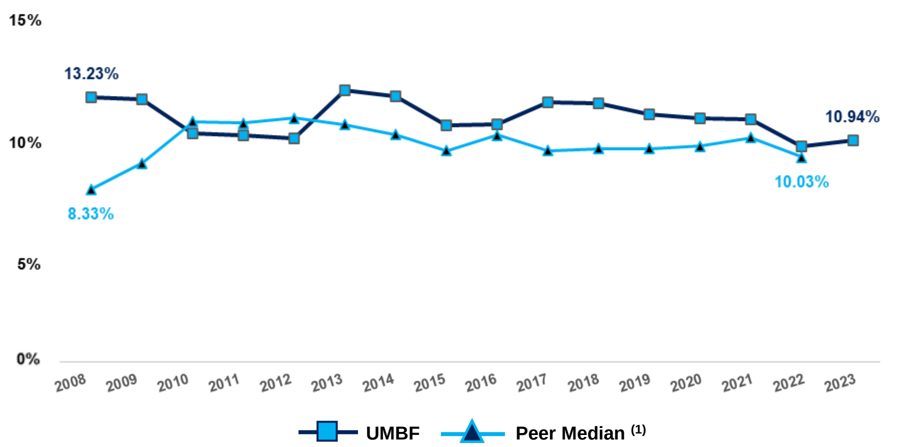
Focus on returning value to shareholders; risk-adjusted returns

- EPS and tangible book value growth outpace peers over the long-term
- Consistent dividend growth

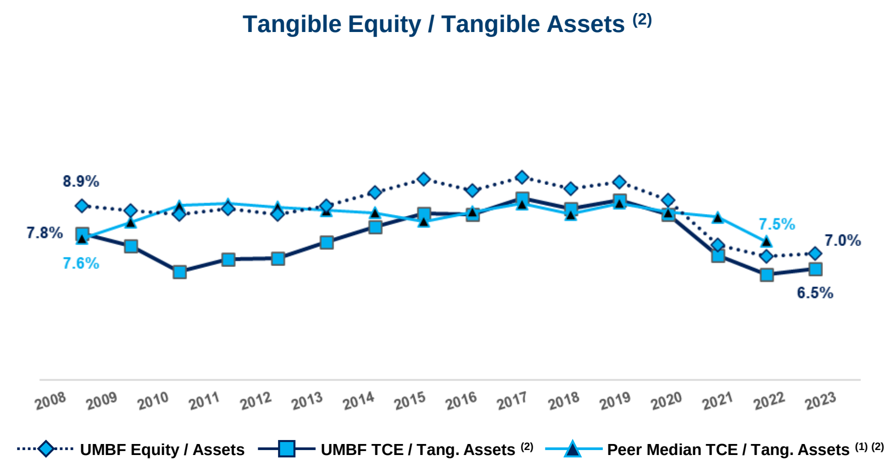
(1) Average collected balances for December 2023; excludes CDs, health savings and FinTech deposits. (2) Excludes $500mm in short-term T-Bills purchased as additional collateral for public funds deposits in 4Q'23.

Capital & Liquidity Supports Growth Outlook

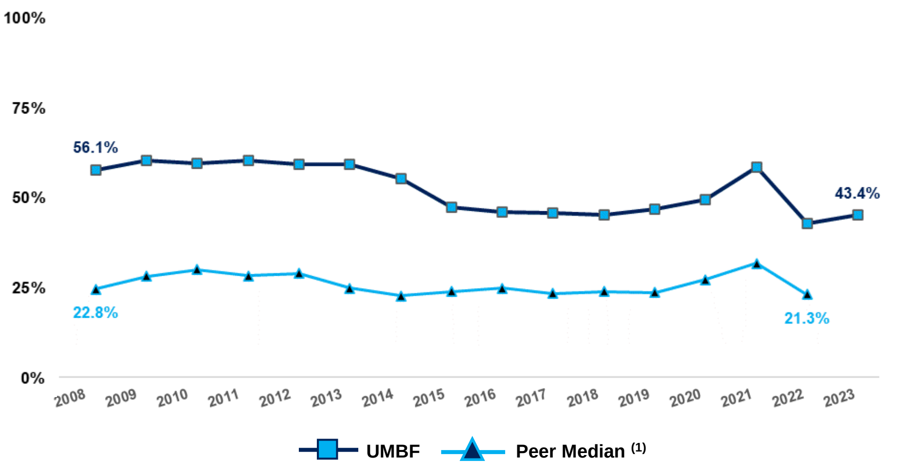
Tier 1 Capital Ratio



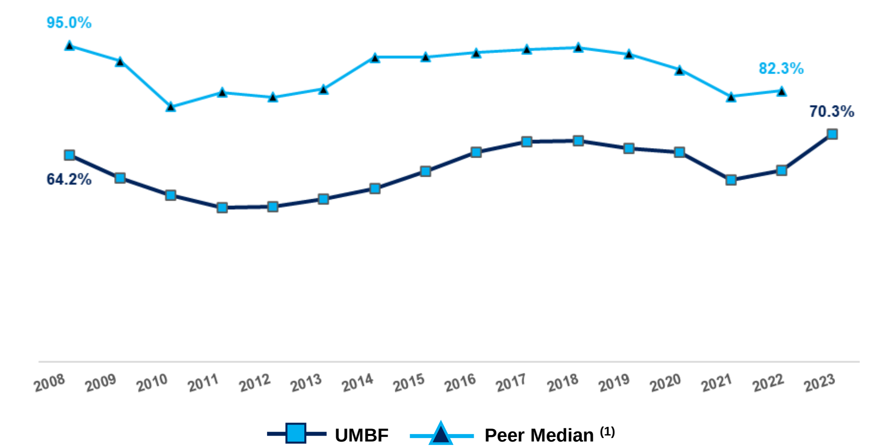
Equity / Assets



Cash & Securities / Assets (3)



Average Loans / Average Deposits



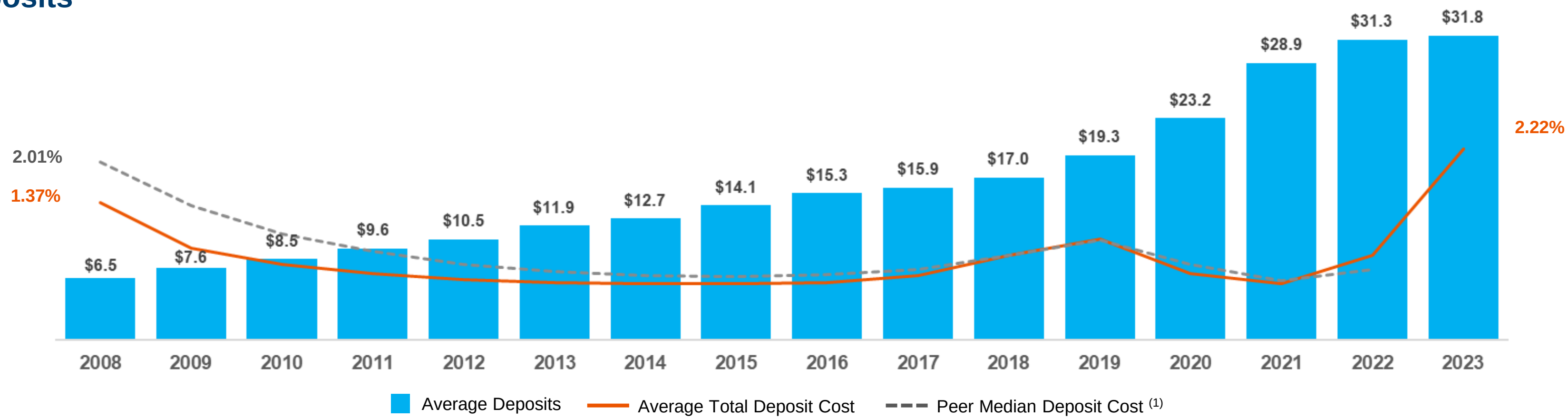
(1) UMB peers (15 banks), as of latest available annual period. Source: S&P Global Market Intelligence; Peer group defined on slide 46; (2) Tangible equity and tangible assets are non-GAAP measures. See reconciliation on slide 50; (3) As defined by S&P Global: "Cash, cash equiv. & investment securities/assets."

Balance Sheet Growth
Across All Business Cycles

UMB

Average Deposits

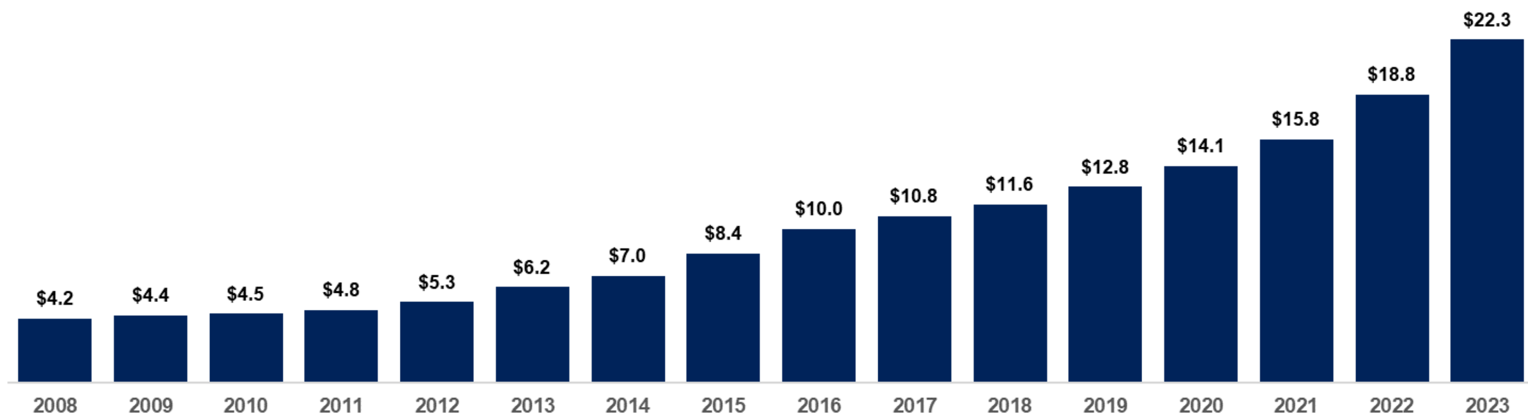
15 Year CAGR
11.1%



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Annual Deposit Growth	14%	16%	11%	14%	10%	13%	6%	11%	9%	4%	7%	14%	20%	25%	8%	1%

Average Loans (2)

15 Year CAGR
11.8%



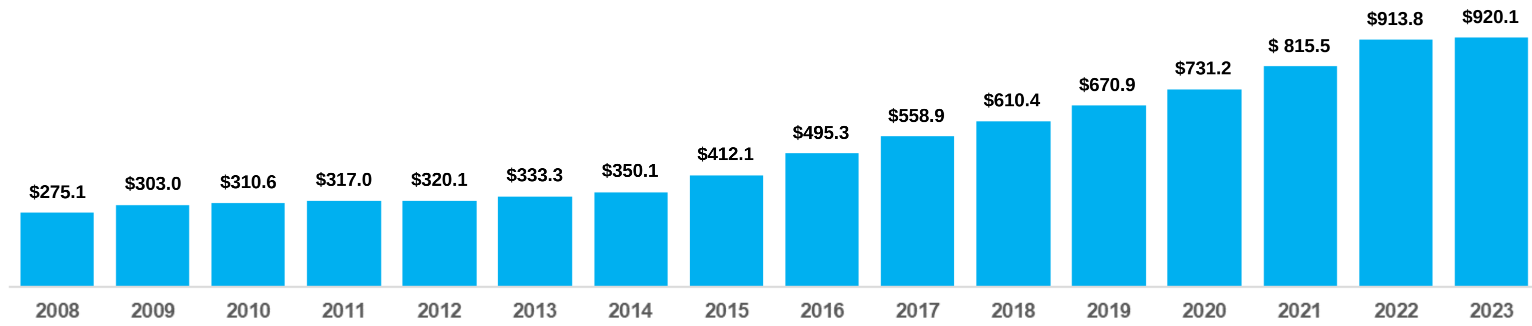
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Annual Loan Growth	7%	5%	2%	6%	10%	18%	12%	21%	19%	9%	7%	10%	10%	12%	19%	19%

Average annual balance in billions. (1) UMB peers (15 banks), as of latest available annual period. Source: S&P Global Market Intelligence; (2) Loan balances exclude PPP loans for ’20 – ’22.

Differentiated Revenue Profile
Multiple Sources of Growth

Net Interest Income

15 Year CAGR
8.4%

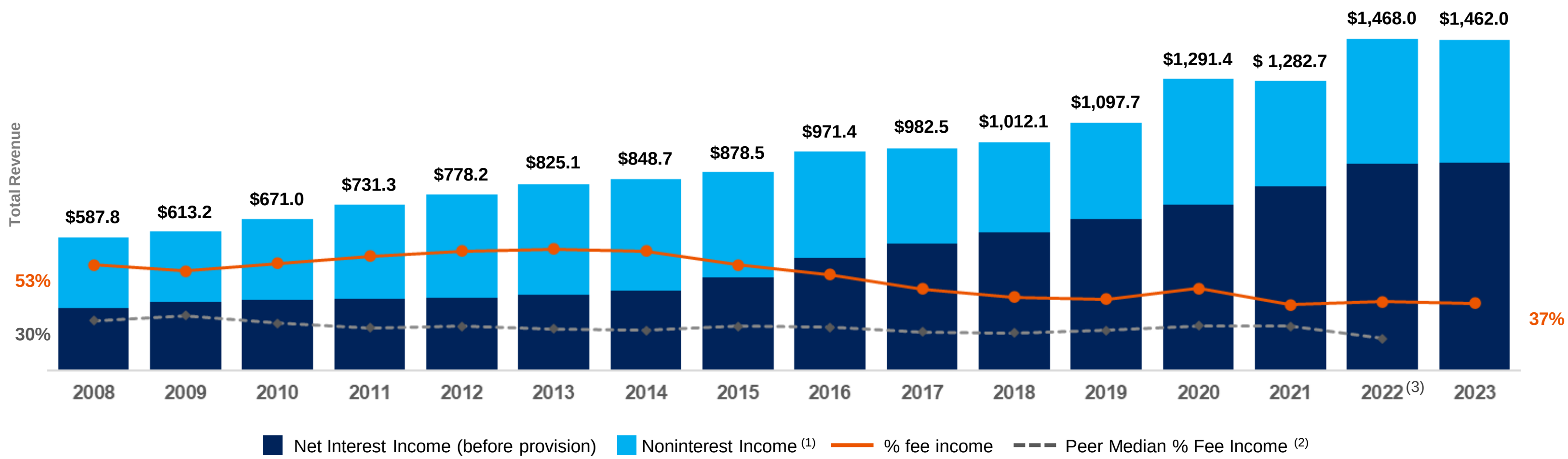


Annual NII Growth	18%	10%	3%	2%	1%	4%	5%	18%	20%	13%	9%	10%	9%	12%	12%	1%

Fee Income Provides Diversity

15 Year CAGR
6.3%
Revenue Growth

15 Year CAGR
3.7%
Fee Income Growth



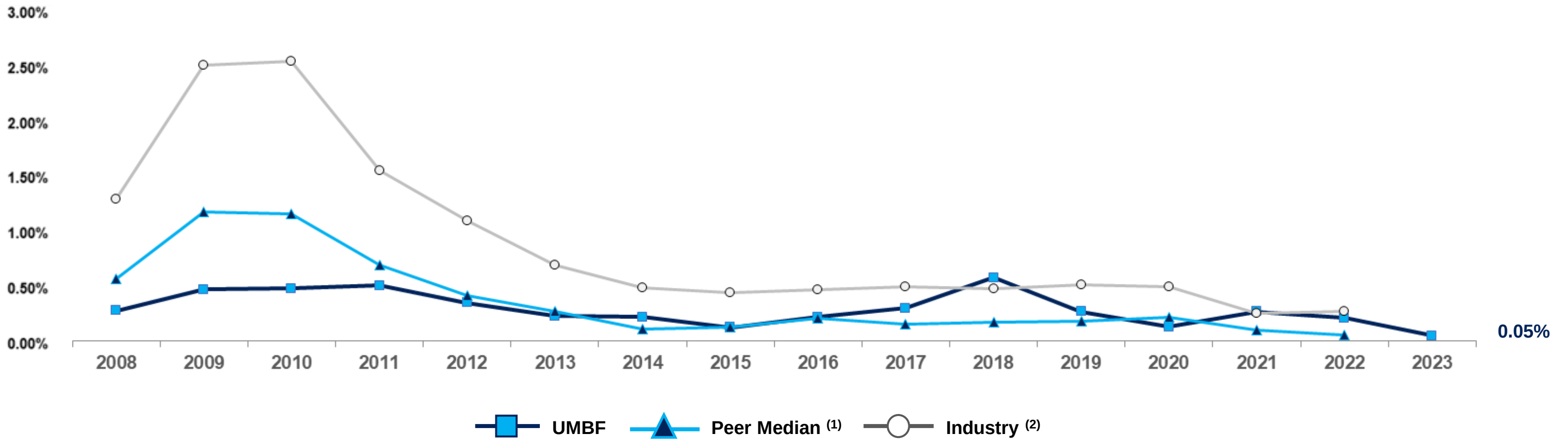
Annual Revenue Growth	13%	4%	9%	9%	6%	6%	3%	4%	11%	1%	3%	8%	18%	-1%	14%	-0.4%

Dollars in millions. (1) Contains income from discontinued operations prior to 2017; (2) UMB peers (15 banks) as of latest available annual period. Source: S&P Global Market Intelligence. (3) 2022 noninterest income contained a $66.2 million pre-tax gain on the sale of Visa Inc. Class B shares.

Resilient Credit Metrics Through All Economic Environments

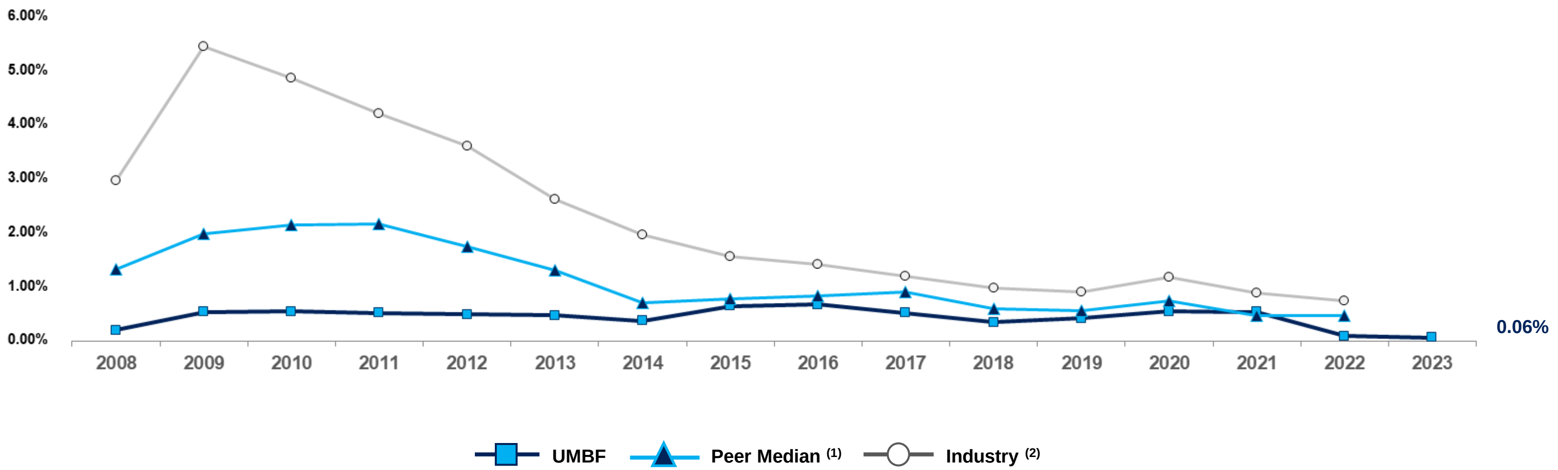
Net Charge-Offs / Average Loans

15 Year Average
0.29%



Nonperforming Loans / Loans

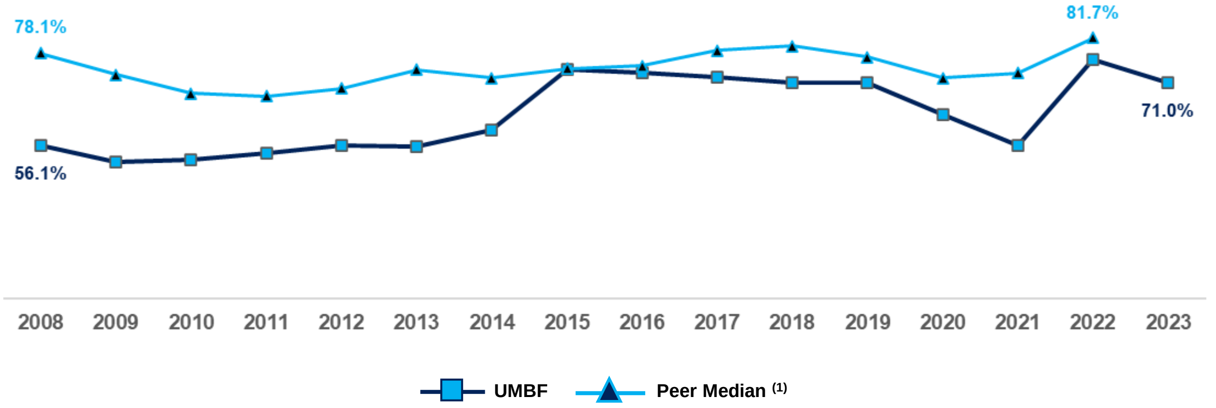
15 Year Average
0.44%



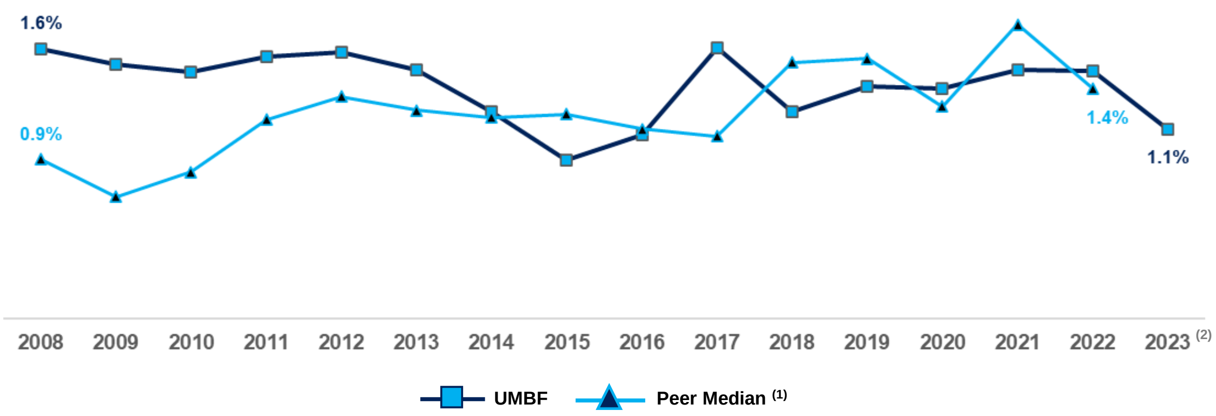
(1) UMB peers (15 banks), as of latest available annual period. Source: S&P Global Market Intelligence; (2) All FDIC-insured banks, as of last available annual period. Source: FDIC.

Risk-Adjusted Returns
Rowing Close to Shore

Risk-Weighted Assets / Assets



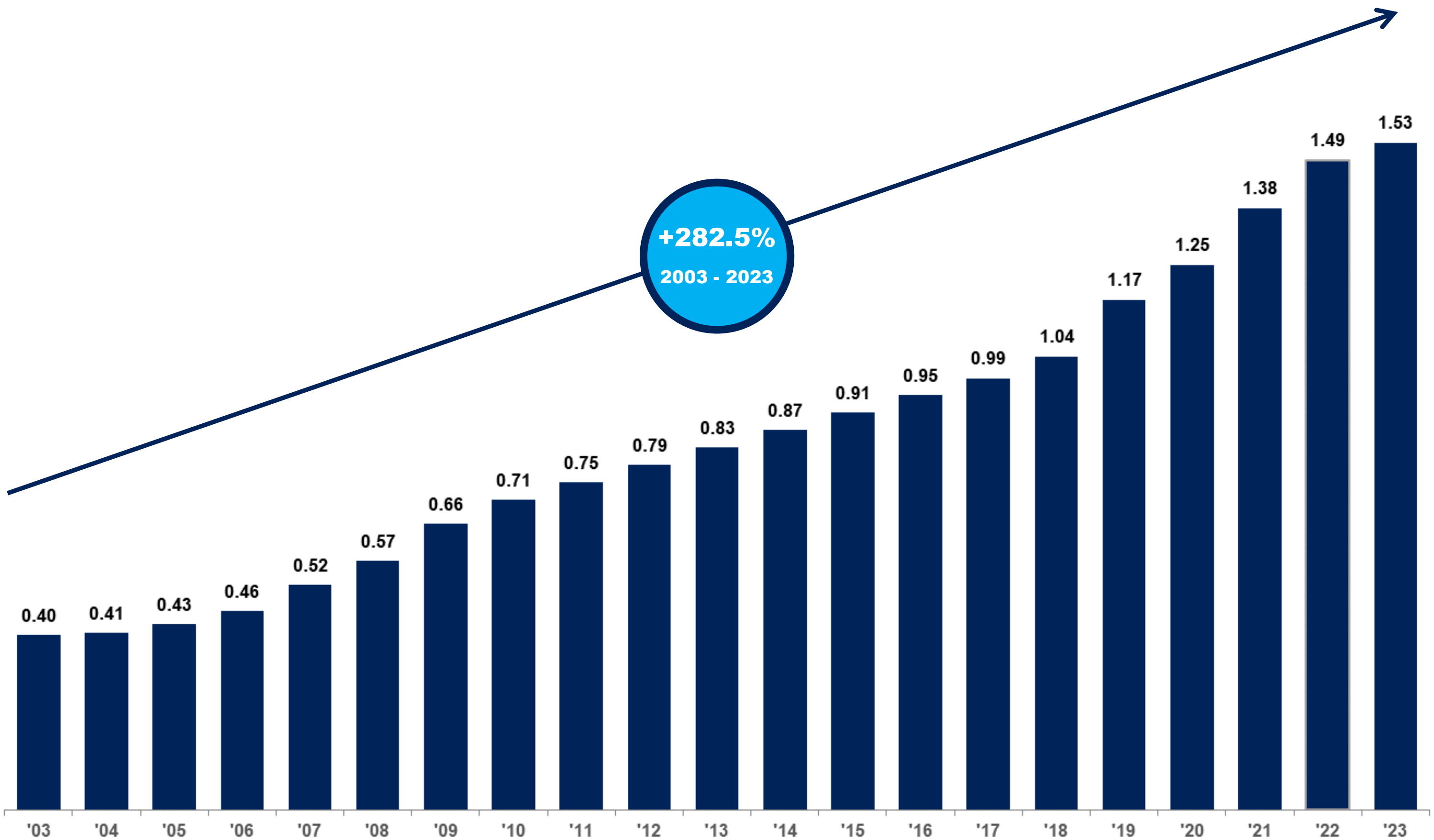
Return on Risk-Weighted Assets



(1) UMB peers (15 banks), data as of latest available annual period. Source: S&P Global Market Intelligence. (2) The numerator for the calculation of Return on Risk-Weighted Assets is GAAP net income, which in 2023 included $52.8 million of pre-tax expense for the FDIC special assessment, recognized in 4Q'23.

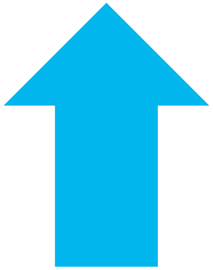
Dividend Trends
Sustained Growth

Annual Dividends Declared (1)



2023 = $1.53

+2.7%
vs. 2022



(1) Dividends adjusted for 2-for-1 stock split in 2006.

4th Quarter 2023 Financial Review

St. Louis, MO

4Q 2023 Results At-A-Glance

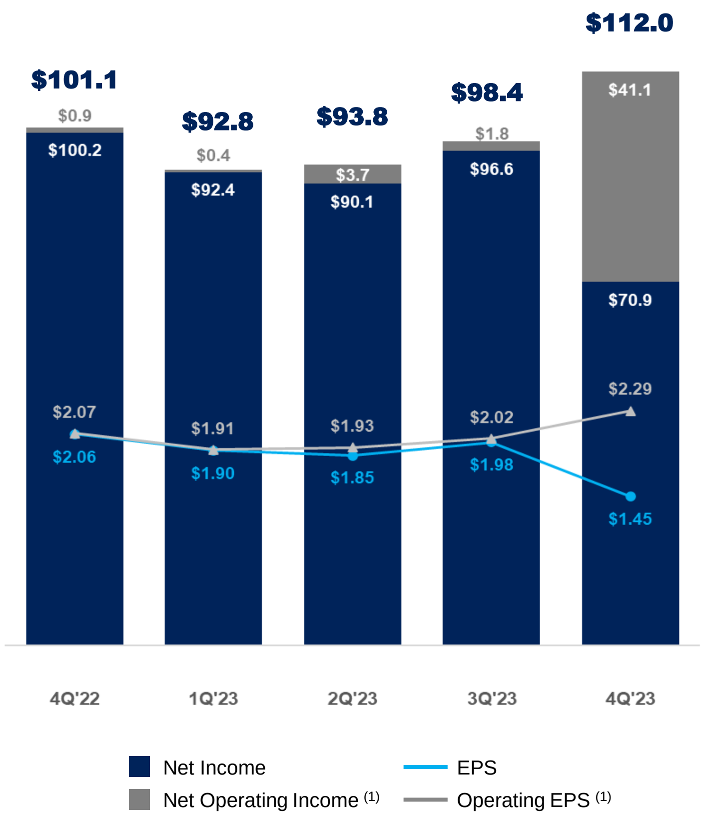
UMB

	4Q '22	3Q '23	4Q '23	Linked-Quarter Variance & Commentary
Average Loans	20,294.7	22,751.5	23,109.1	Strong top line production of $909mm, partially offset by increased commercial payoffs/paydowns. Construction +$249mm, CRE +$95mm
LQ annualized growth %	*21.0%*	*10.1%*	*6.3%*	
End-of-Period Loans	21,031.2	22,881.7	23,172.5	
LQ annualized growth %	*23.1%*	*7.1%*	*5.1%*	
Average Deposits	31,374.0	31,330.4	32,675.3	+$1.3B vs. 3Q23, led by middle mkt. commercial, Fund Services & investor solutions. Offsets: Intentional reduction in brokered CDs, seasonal fluctuations in Corp. Trust. Avg. DDA = 31.0% of avg. deposits
LQ annualized growth %	*21.2%*	*-1.8%*	*17.2%*	
End-of-Period Deposits	32,639.1	33,431.8	35,792.9	Includes typical quarter-end activity in commercial & corporate trust, along with seasonal inflows of public funds deposits
LQ annualized growth %	*10.5%*	*-1.1%*	*28.2%*	
Net charge-offs / avg. loans	0.04%	0.08%	0.02%	Full-year 2023 net charge-offs/average loans = 0.05%
Nonperforming loans / loans	0.09%	0.07%	0.06%	1 bps improvement in nonaccruals; improved trends in delinquencies & classified loan balances
Net Interest Income	245.2	222.3	230.5	Loan growth, higher liquidity levels & reduced borrowings, partially offset by higher deposit costs. Earning asset beta has matched cost-of-funds beta cycle-to-date
FTE Net Interest Margin	2.83%	2.43%	2.46%	+3 bps. Primary drivers: +9bps loan repricing & mix, offset by deposit costs; +3bps from benefit of free funds and liquidity levels
Provision for Credit Losses	9.0	5.0	-	Reflects strong asset quality in loan portfolio
Noninterest Income (loss) investment securities (1)	(0.4)	0.3	1.0	
Noninterest Income ex. inv. security gains (losses)	125.9	133.0	139.3	+$2.0 in trading/inv. banking income, +$3.7mm COLI income (offset to deferred comp expense), +$567k derivative income
Total Noninterest Income	125.5	133.3	140.3	
Noninterest Expense	237.8	231.4	290.0	Includes the GAAP recognition of $52.8mm pre-tax expense for FDIC special assessment
Operating Noninterest Expense (2)	236.6	229.0	235.9	Variance includes +$2.7mm deferred comp. (offset to COLI), +$2.3mm PC purchases, +$1.5mm charitable contributions, -$2.1mm in various emp. benefits & commission expense
Net Income	100.2	96.6	70.9	Includes the impact of $52.8mm expense for FDIC special assessment, net of tax adjustments
Earnings per share, diluted	$2.06	$1.98	$1.45	
Net Operating Income (3)	101.1	98.4	112.0	
Operating Earnings per share, diluted (3)	$2.07	$2.02	$2.29	
Dividends per share	0.38	0.38	0.39	
Operating PTPP income (2)	134.1	126.6	134.9	
Operating PTPP EPS (2)	$2.75	$2.60	$2.76	

(1) Net gains/losses on any disposition or impairment of debt securities + mark-to-market valuations of equity investments; (2) Operating noninterest expense and operating PTPP income & EPS are non-GAAP measures. See reconciliation on slide 49; (3) Net operating income & operating EPS are non-GAAP measures. See reconciliation on slide 48.

4Q 2023 Earnings Highlights

Net Income & Net Operating Income [1]



Operating PTPP Income [2]

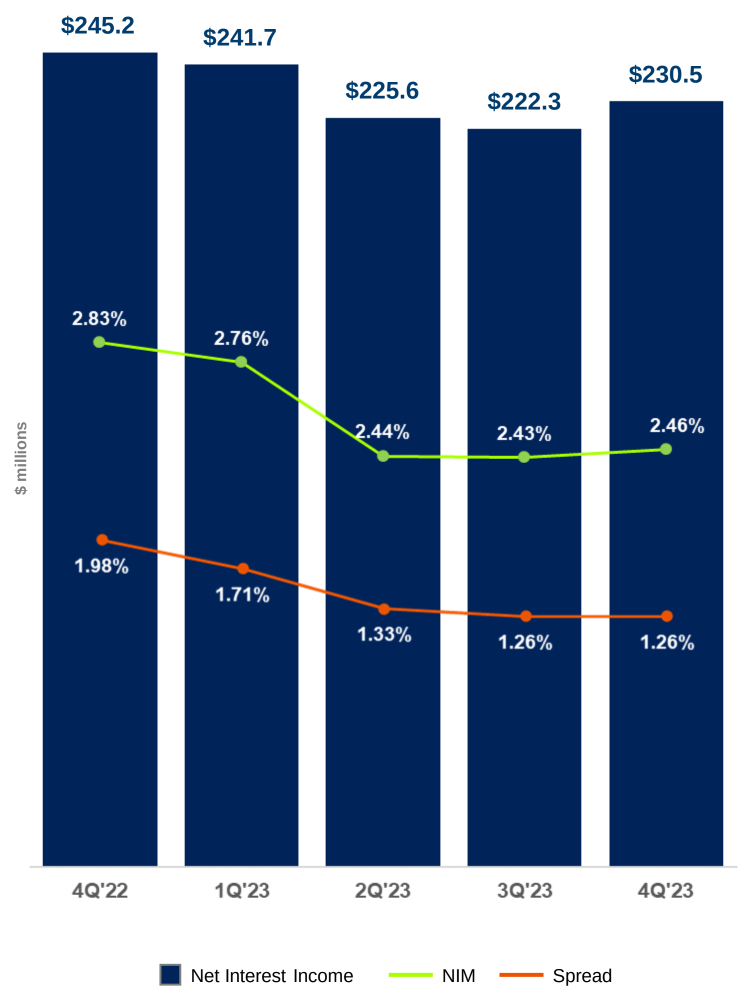
Dollars in millions, except per share amounts. (1) Net operating income and operating EPS are non-GAAP measures. See reconciliation on slide 48; (2) Operating PTPP income is a non-GAAP measure. See reconciliation on slide 49; (3) Net gains/losses on any disposition or impairment of debt securities plus mark-to-market valuations of equity investments.

Revenue Trends

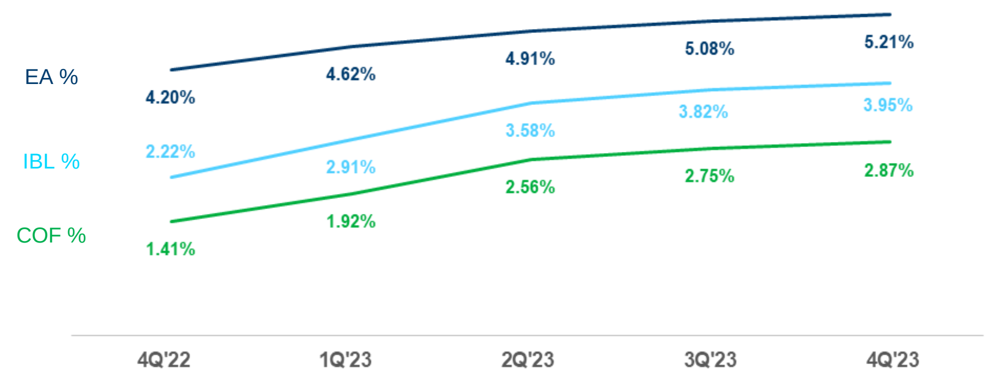
	4Q '22	1Q '23	2Q '23	3Q '23	4Q '23	Linked-Qtr. Variance $ Δ	% Δ
Interest Income	366.8	408.7	461.4	472.0	496.6	24.6	5.2
Interest Expense	121.6	167.1	235.8	249.7	266.1	16.4	6.6
Net Interest Income	**$ 245.2**	**$ 241.7**	**$ 225.6**	**$ 222.3**	**$ 230.5**	**$ 8.2**	**3.7%**
Trust & securities processing	59.2	62.4	61.6	66.7	66.6	(0.1)	(0.1)
Trading & investment banking	5.3	5.3	4.8	3.8	5.8	2.0	52.5
Deposit Service Charges	19.8	21.2	21.4	21.1	21.3	0.3	1.2
Insurance fees and commisions	0.5	0.3	0.2	0.3	0.2	(0.0)	(12.5)
Brokerage fees	13.3	13.7	13.6	13.4	13.4	0.0	0.3
Bankcard fees	19.6	18.2	18.6	19.3	18.7	(0.6)	(3.2)
Net inv. securities gains (losses)	(0.4)	(5.3)	0.9	0.3	1.0	0.7	NM
Other income	8.3	14.6	17.0	8.6	13.2	4.7	54.5
Total noninterest income	**$ 125.5**	**$ 130.2**	**$ 138.1**	**$ 133.3**	**$ 140.3**	**$ 6.9**	**5.2%**
Total Revenue	**$ 370.7**	**$ 371.9**	**$ 363.7**	**$ 355.6**	**$ 370.8**	**$ 15.2**	**4.3%**

Dollars in millions. Columns may not sum due to rounding differences.

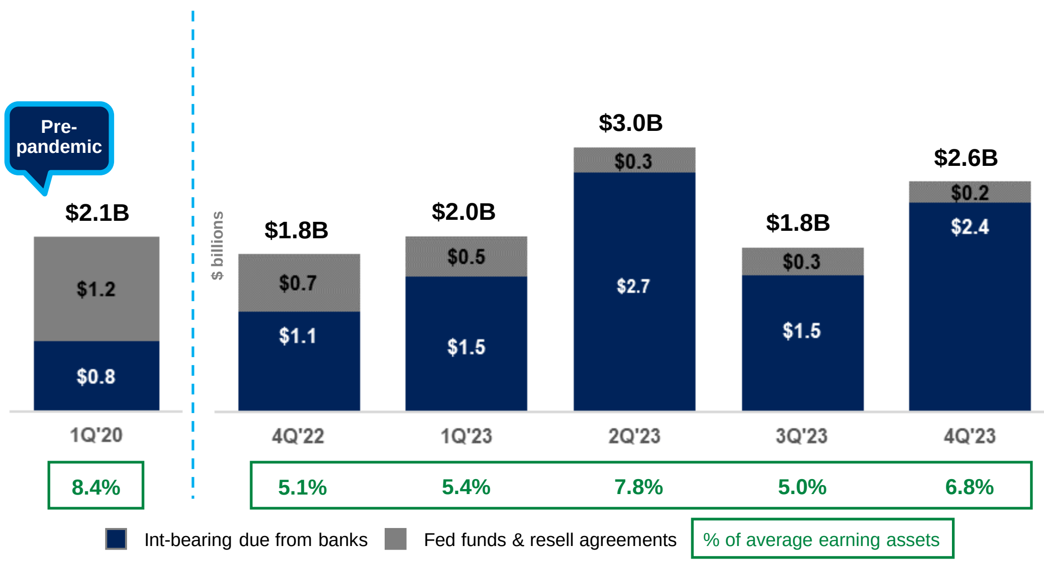
Net Interest Income



Asset Yield and Liability Cost Trends

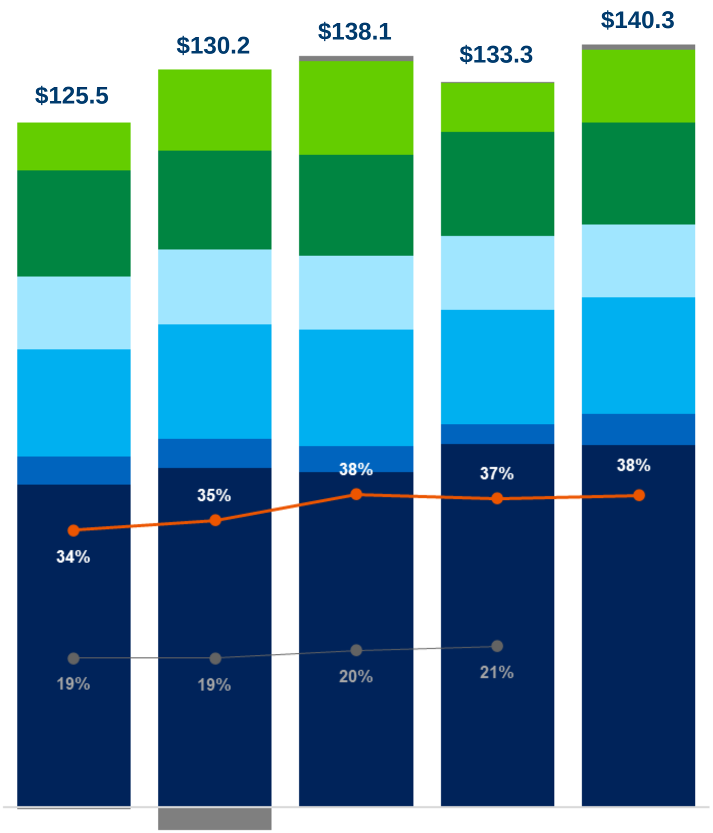


Liquidity Trends



Liquidity trends shown as average quarterly balances.

Noninterest Income



Current Quarter Drivers

Noninterest income increased $6.9mm or 5.2%, vs. 3Q'23. Primary drivers:

- Increases of $3.7mm in company-owned life insurance ("COLI") income and $567k in derivative income, both in "other income", and
- An increase of $2.0mm in trading and investment banking related to higher municipal security trading volumes.
- COLI income was $3.3mm in 4Q'23, -$410k in 3Q'23, and $21k in 4Q'22. This income variance is offset by a proportionate change in deferred compensation expense.

Composition / Changes in Inv. Securities Gains (Losses) and Trust & Securities Processing

	4Q'22	3Q'23	4Q'23	LQ Variance $ Δ	LQ Variance % Δ
Investment Securities Gains (Losses)					
Equity securities	(0.4)	0.1	1.0	0.9	NM
AFS debt securities	-	0.2	-	(0.2)	NM
	$(0.4)	**$0.3**	**$1.0**	**$0.7**	**274.2%**
Trust & Securities Processing					
Personal Banking	12.7	13.7	13.2	(0.5)	(3.6)
Institutional Banking					
Fund Services	33.7	37.9	38.6	0.7	1.8
Corp. Trust & Inst. Asset Mgmt.	12.8	15.1	14.8	(0.3)	(2.0)
	$59.2	**$66.7**	**$66.6**	**$ (0.1)**	**(0.1%)**

Dollars in millions. (1) UMB peers (15 banks), data as of latest available quarter. Source: S&P Global Market Intelligence.

Noninterest Expense

$ in millions	4Q '22	1Q '23	2Q '23	3Q '23	4Q '23	Linked-Qtr. Variance $ Δ	% Δ
Severance expense	*0.4*	*0.5*	*4.9*	*2.4*	*1.2*	*(1.2)*	*(48.8)*
Salary & Benefits, ex. severance expense	135.6	142.0	138.4	131.0	133.0	2.0	1.5
Occupancy	12.4	12.2	11.7	12.3	12.3	0.0	0.1
Equipment	19.0	17.8	17.1	17.2	16.6	(0.6)	(3.6)
Supplies & services	3.7	3.9	4.2	3.2	5.5	2.3	72.6
Marketing & business dev.	8.8	5.3	7.1	6.6	6.7	0.0	0.4
Processing fees	23.5	23.2	26.6	26.0	27.3	1.3	4.8
Legal & consulting	10.7	7.3	7.1	7.2	8.4	1.2	16.5
Bankcard	7.4	7.1	8.3	8.9	8.7	(0.2)	(2.0)
Amortization; other intangibles	1.6	2.3	2.1	2.1	2.0	(0.1)	(3.6)
Regulatory fees	4.2	5.6	6.1	6.2	59.2	53.0	NM
Other expense	10.6	9.8	7.0	8.4	9.1	0.7	8.4
Total noninterest expense (1)	**$ 237.8**	**$ 237.1**	**$ 240.7**	**$ 231.4**	**$ 290.0**	**$ 58.5**	**25.3%**
Operating noninterest expense (2)	**$ 236.6**	**$ 236.5**	**$ 235.8**	**$ 229.0**	**$ 235.9**	**$ 6.9**	**3.0%**

Excludes FDIC special assessment and other expenses as noted on slide 49.

Current Quarter Drivers

Noninterest expense increased $58.5mm or 25.3%, vs. 3Q'23 on a GAAP basis. On an operating basis, which excludes the FDIC special assessment and expenses related to acquisitions and severance, noninterest expense increased $6.9mm, or 3.0%. (2)

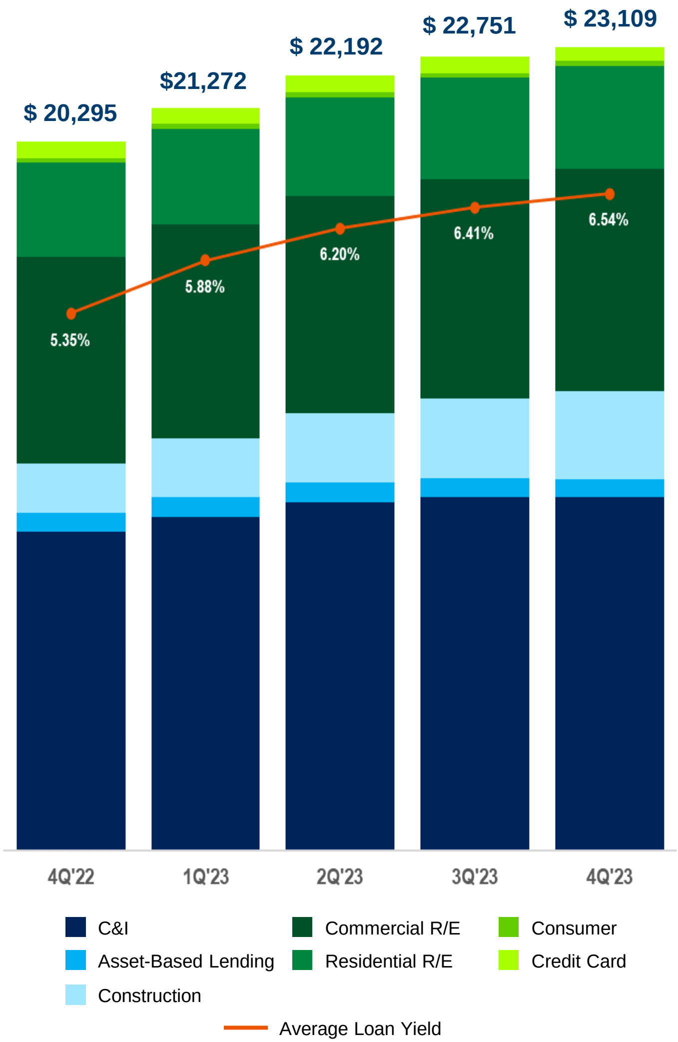
Primary drivers:

- An increase of $2.3mm in supplies related largely to the purchase of computers during 4Q'23,
- $1.5mm of additional charitable contributions compared to 3Q'23,
- $1.3mm increase in processing fees and $1.2mm in additional legal/consulting expense, as various systems and other projects were completed, and
- The following variances in salaries and employee benefits:
  - +$2.7mm in deferred compensation expense,
  - -$1.6mm in payroll taxes, insurance and 401(k) expense, and
  - -$467k in bonus & commission expense.

- Deferred compensation expense was $3.1mm in 4Q'23, $425k in 3Q'23, and $763k in 4Q'22. Variances are offset by a proportionate change in COLI income.

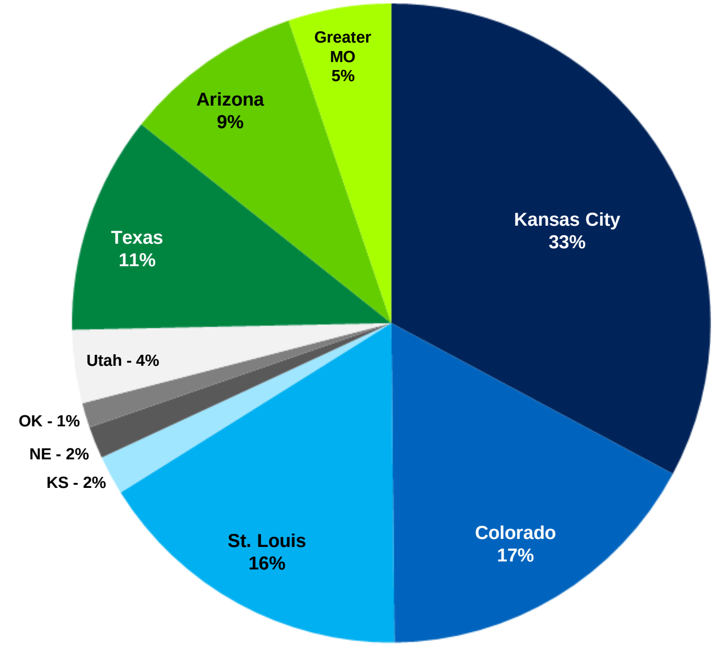
(1) Columns may not sum due to rounding differences. (2) Operating noninterest expense is a non-GAAP metric. See reconciliation on slide 49.

Diversified Loan Portfolio



	4Q '22	3Q '23	4Q '23	Linked-Qtr. Variance $ ∆	% ∆
CRE/Construction	7,324	8,545	8,890	345	4.0
Residential Real Estate	2,679	2,923	2,945	22	0.8
Credit Card	457	478	496	18	3.7
Consumer	146	139	153	14	10.3
Commercial & Industrial	9,130	10,139	10,128	(11)	(0.1)
Specialty Lending	559	527	497	(30)	(5.7)
Total Loans	**$ 20,295**	**$ 22,751**	**$ 23,109**	**$ 358**	**1.6%**

Loans by Region



Average balances in millions.

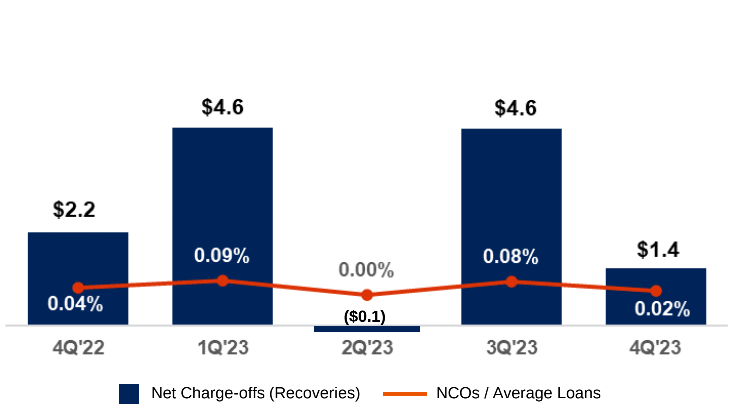
Quarterly Loan Activity

	4Q '22	1Q '23	2Q '23	3Q '23	4Q '23
Gross Loan Production	$1,296.8	$933.8	$986.3	$648.9	$909.0
Revolving Balance Changes	532.7	554.7	431.9	478.8	381.3
Net (Charge-offs) Recoveries	(2.2)	(4.6)	0.1	(4.6)	(1.4)
Payoffs [(1)]	(426.9)	(395.7)	(534.5)	(497.3)	(707.9)
Paydowns [(1)]	(252.8)	(306.4)	(213.3)	(227.6)	(290.2)
Net Loan Growth	1,147.6	781.8	670.5	398.2	290.8
End-of-Period Total Loans	21,031.2	21,813.0	22,483.5	22,881.7	23,172.5
Paydowns/Payoffs as a % of Loans	3.4%	3.3%	3.4%	3.2%	4.4%

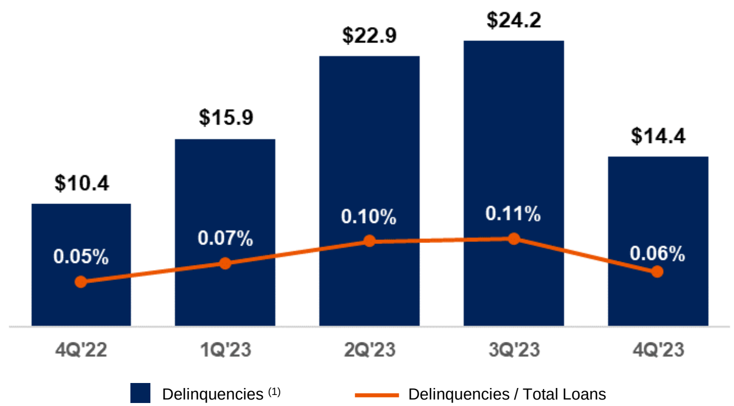
(1) Payoffs and paydowns include C&I and CRE loans.

Strong Asset Quality

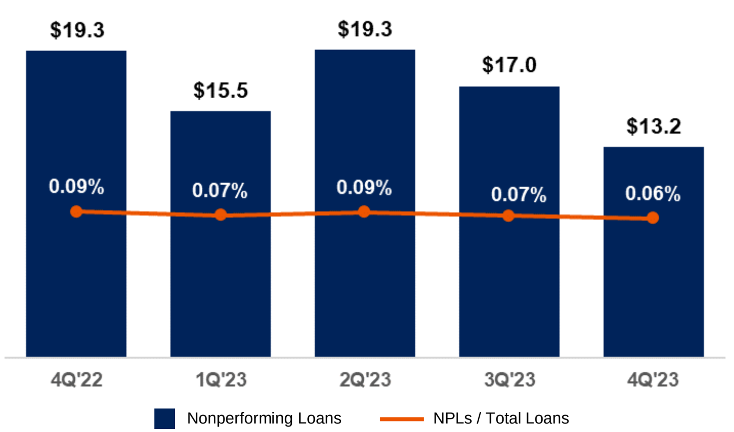
Net Loan Charge-Offs (Recoveries)



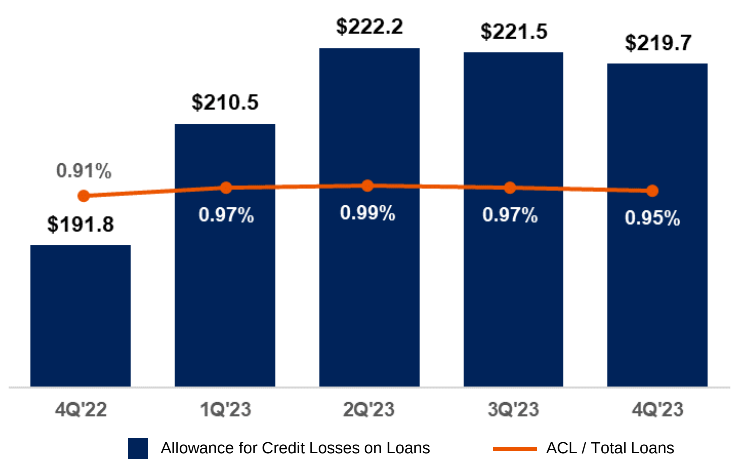
Delinquencies



Nonperforming Loans



Allowance for Credit Losses



Dollars in millions. (1) Delinquencies represent accruing loans > 30 days past due.

Detailed Net Charge-Off History

Historical

($ in thousands)	2004	2005	2006	2007	2008	2009	2010	2011
Commercial Loans [(1)]	893	1,818	2,367	1,569	2,943	4,113	6,007	11,880
Other [(1)]	5,248	5,855	4,625	6,704	8,812	16,145	15,690	12,255
Total Net Charge-Offs (Recoveries)	**$ 6,141**	**$ 7,673**	**$ 6,992**	**$ 8,273**	**$ 11,755**	**$ 20,258**	**$ 21,697**	**$ 24,135**
Average Total Loans *($ in millions)*	$ 2,758	$ 3,110	$ 3,562	$ 3,888	$ 4,176	$ 4,356	$ 4,584	$ 4,749
NCOs as % of Avg Loans	0.22%	0.25%	0.20%	0.21%	0.28%	0.47%	0.48%	0.51%

($ in thousands)	2012	2013	2014	2015	2016	2017	2018	2019
Commercial Loans [(1)]	7,310	3,881	6,459	3,415	9,192	24,463	57,618	28,970
Other [(1)]	10,781	10,294	9,152	7,082	12,802	7,582	10,101	5,727
Total Net Charge-Offs (Recoveries)	**$ 18,091**	**$ 14,175**	**$ 15,611**	**$ 10,497**	**$ 21,994**	**$ 32,045**	**$ 67,719**	**$ 34,697**
Average Total Loans *($ in millions)*	$ 5,243	$ 6,217	$ 6,974	$ 8,424	$ 9,986	$ 10,842	$ 11,605	$ 12,759
NCOs as % of Avg Loans	0.35%	0.23%	0.22%	0.12%	0.22%	0.30%	0.58%	0.27%

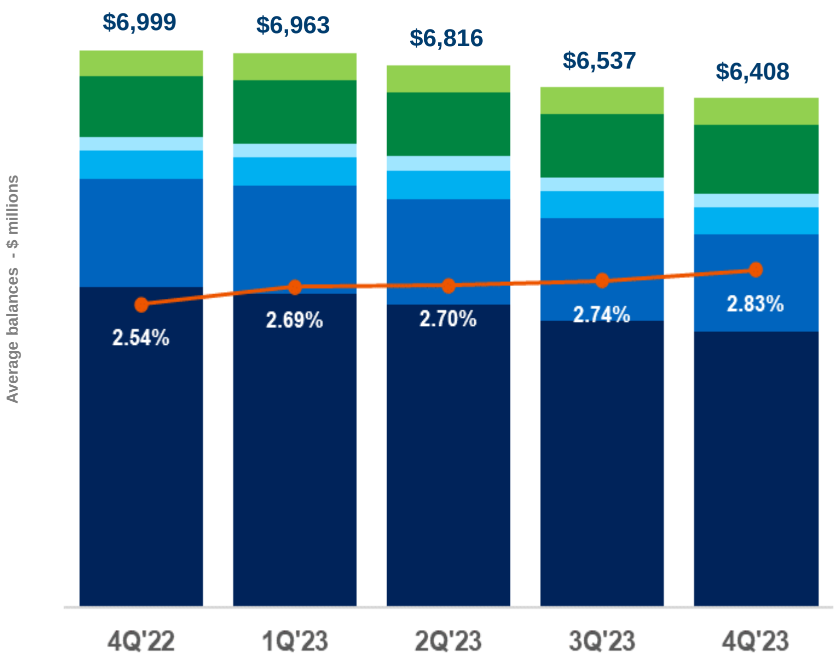
Recent Trends

($ in thousands)	FY 2020	FY 2021	FY 2022	FY 2023	1Q'23	2Q'23	3Q'23	4Q'23
Commercial & Industrial	2,114	7,287	35,719	(248)	2,031	(2,098)	1,463	(1,644)
Specialty Lending	-	31,758	(433)	761	(1)	-	762	-
Commercial Real Estate	11,848	(362)	(356)	155	21	(21)	-	155
Consumer Real Estate	150	(46)	(74)	1,140	1,108	16	5	11
Consumer	300	2,201	674	1,021	247	311	222	241
Credit Cards	5,708	4,044	4,338	7,645	1,237	1,653	2,166	2,589
Leases & Other	5	(10)	-	-	-	-	-	-
Total Net Charge-Offs (Recoveries)	**$ 20,125**	**$ 44,872**	**$ 39,868**	**$ 10,474**	**$ 4,643**	**$ (139)**	**$ 4,618**	**$ 1,352**
Average Total Loans *($ in millions)*	$ 15,109	$ 16,618	$ 18,822	$ 22,335	$ 21,270	$ 22,189	$ 22,749	$ 23,107
NCOs as % of Avg Loans	0.13%	0.27%	0.21%	0.05%	0.09%	(0.00%)	0.08%	0.02%

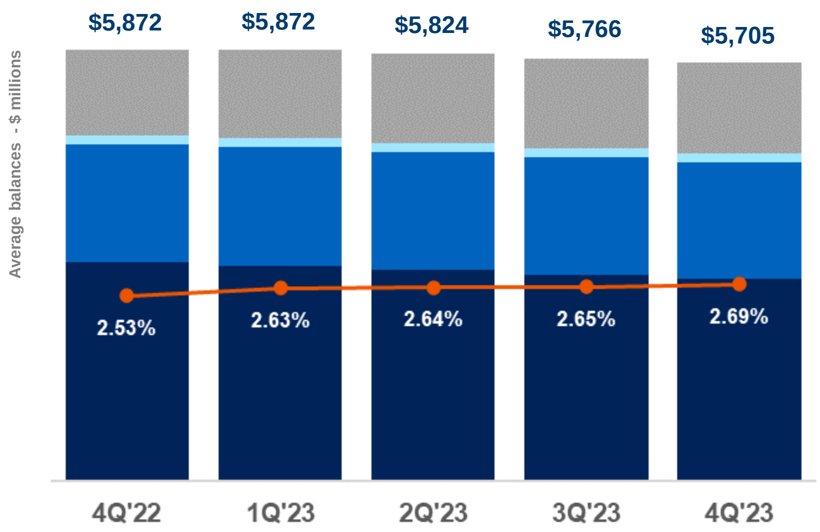
(1) Loan categories updated in 2020 with adoption of ASU 2016-13. In prior periods, NCOs for "Commercial" included C&I, commercial card, ABL and factoring loans. NCOs for "Other" included consumer cards, all real-estate loans, consumer loans and DDA.

High-Quality Investment Portfolio

Available-for-Sale (1)



Held-to-Maturity (1)



GNMA/GSE Mortgage-Backed
General Obligation Municipals
Corp. & Commercial Paper
GSE Agencies
Treasuries
Collateralized Loan Obligations
Revenue Bonds
Average Blended Yield

(1) Balances are presented at carrying value, which is fair value for the available-for-sale portfolio and amortized cost for the held-to-maturity portfolio.

Securities Portfolio Statistics

UMB

Securities Portfolio Activity [1] *$ in millions*	4Q'22	1Q'23	2Q'23	3Q'23	4Q'23 [3]
Roll-off / Cash Flow	$246	$250	$243	$240	$262
Roll-off Yield	1.94%	2.42%	2.07%	1.90%	2.38%
Purchased [2]	84	4	9	1	154
Purchased Yield	5.04%	4.23%	4.89%	5.23%	4.69%
Next Qtr. Scheduled Cash Flow	235	259	230	292	623
Expected Cash Flow Yield	2.06%	1.96%	1.82%	2.33%	2.03%
Next 12 mos. Scheduled Cash Flow	1,080	1,558	1,636	1,646	1,637
Expected Cash Flow Yield	2.03%	2.01%	2.16%	2.18%	2.23%
Portfolio Duration In Months					
Available-for-Sale	50	48	47	49	42
Held-to-Maturity	93	91	90	96	86

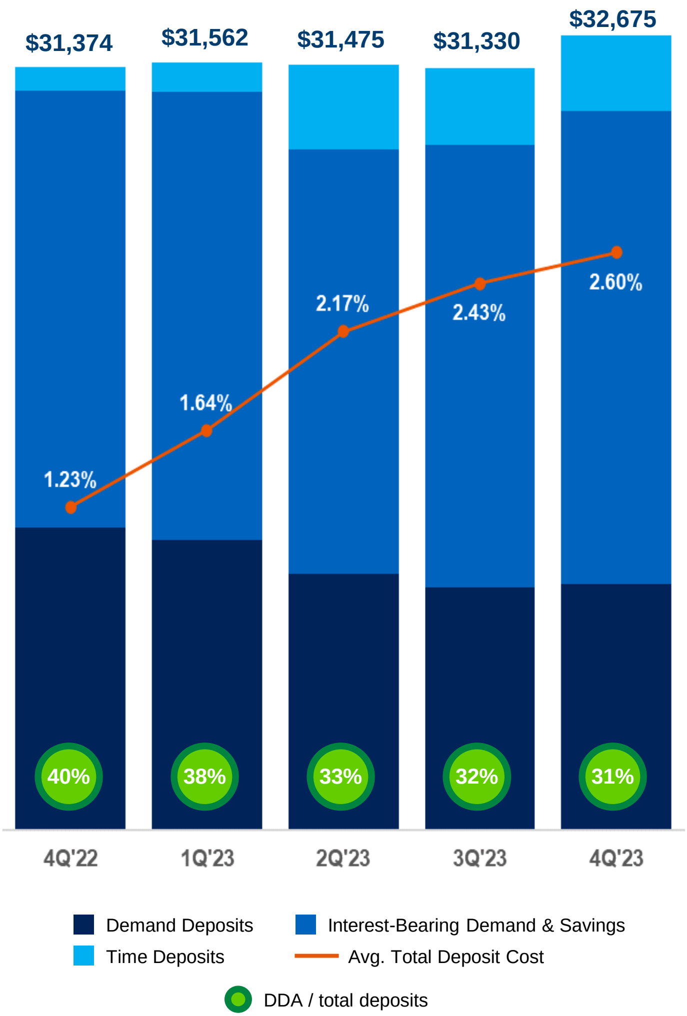
$ in millions; as of 12/31/23	Amortized Cost	Fair Value	Net Unrealized Loss [4]
Available for Sale			
Mortgage-backed	4,129	3,621	(508)
Municipals	1,360	1,287	(73)
US Treasuries	1,309	1,299	(10)
Corporates	382	351	(31)
CLOs	351	351	(0)
US Agencies	162	160	(3)
Total AFS	**7,693**	**7,069**	**(624)**
Held to Maturity			
Mortgage-backed	2,738	2,382	(357)
Municipals	1,589	1,467	(122)
US Agencies	123	121	(3)
Industrial Rev. Bonds	1,242	1,214	(28)
Total HTM	**5,692**	**5,183**	**(509)**
Total Securities [4]	**13,385**	**12,252**	**(1,133)**

Additional 4Q'23 Activity

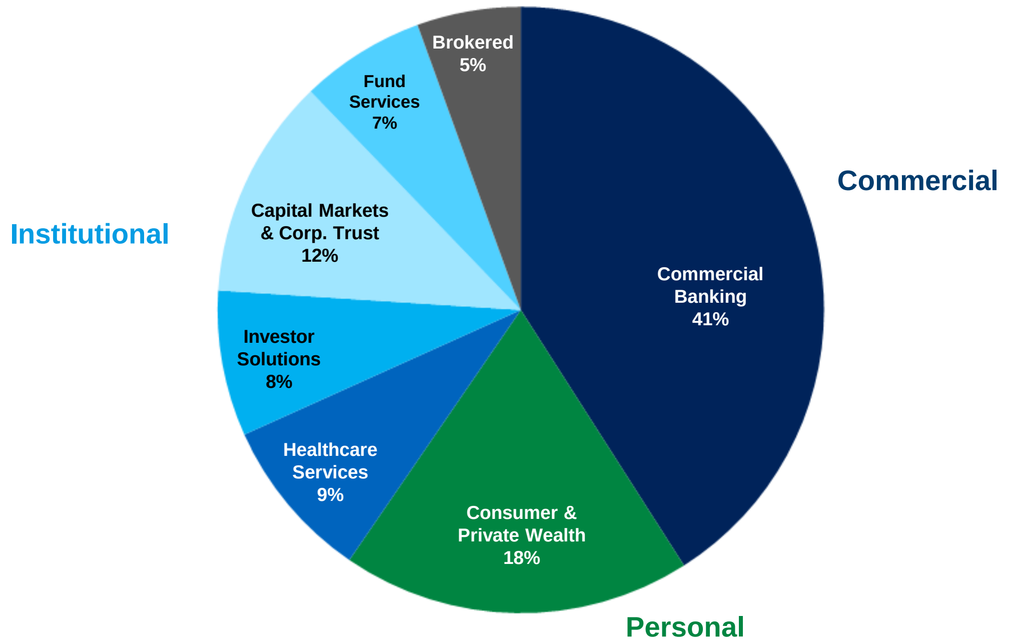
Purchased $500 million of short-term Treasury Bills @ 5.39% as additional collateral for public funds deposits

(1) Purchase activity, cash flow and duration includes AFS securities and the HTM portfolio exclusive of industrial revenue bonds held-to-maturity; (2) Purchases made for roll-off and overbuy, net of purchases related to sales/trades. (3) Purchased, purchased yield, expected cash flows and cash flow yields in 4Q'23 exclude the impact of $500mm T-Bills purchased @ 5.39% as noted above; (4) Columns and rows may not sum due to rounding differences.

Diversified Deposit Mix



Deposits by Line of Business



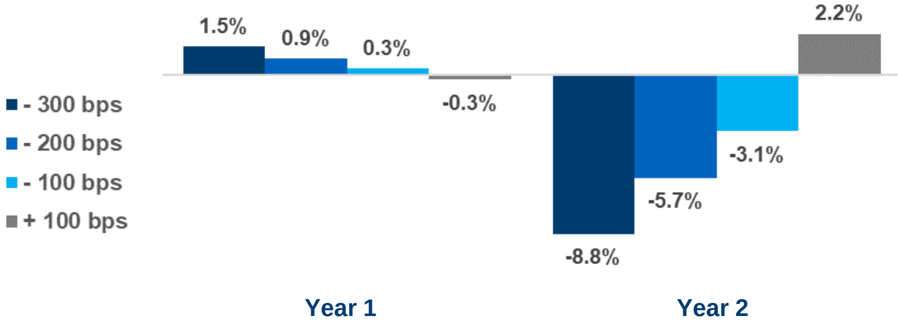
	4Q '22	3Q '23	4Q '23	Linked-Qtr. Variance $ ∆	% ∆
Commercial	14,396	11,992	13,393	1,401	11.7
Fund Services	2,070	1,791	2,175	384	21.5
Investor Solutions	2,850	2,225	2,538	313	14.0
Healthcare Services	2,441	2,767	2,841	74	2.7
Consumer & Private Wealth	6,200	6,127	6,082	(45)	(0.7)
Brokered CDs	-	2,026	1,796	(230)	(11.4)
Capital Markets / Corp. Trust	3,417	4,402	3,850	(552)	(12.5)
Total	**$31,374**	**$31,330**	**$32,675**	**$1,345**	**4.3%**

Average balances in millions.

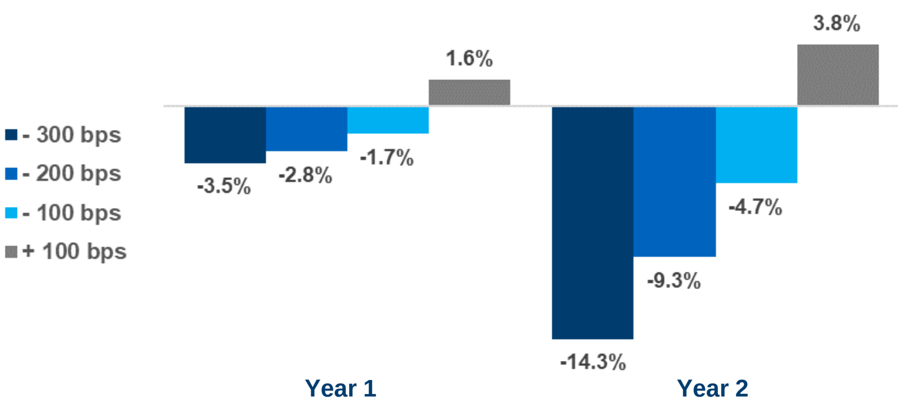
Interest Rate Sensitivity

Impact to Net Interest Income

Ramp Scenario – Static Balance Sheet



Shock Scenario – Static Balance Sheet



Assumptions

- Projected rates for new loans and deposits based on historical analysis, management outlook and repricing strategies
- Asset prepayments and other market risks are developed from industry estimates of prepayment speeds and other market changes

Loan Maturities & Repricing

- 64% of total end-of-period loans, or $14.8B, are variable.
- 71% of total loans reprice within the next 12 months.

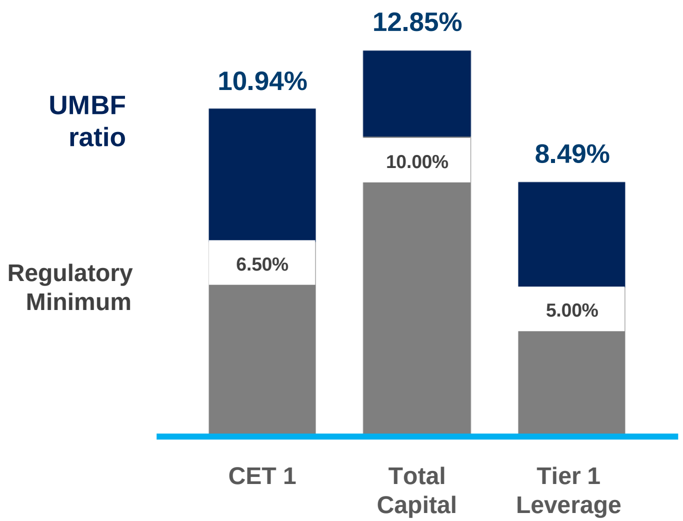
Of variable loans - % tied to indices for next 12 months:

- 70% - SOFR
- 26% - Prime
- 4% - other

Capital & Liquidity Position

Strong Capital

Regulatory Capital Ratios



Total Equity / Total Assets

7.04%

Tangible Common Equity Ratio (1)

6.45%

Tangible Common Equity Ratio, ex. AOCI (1)

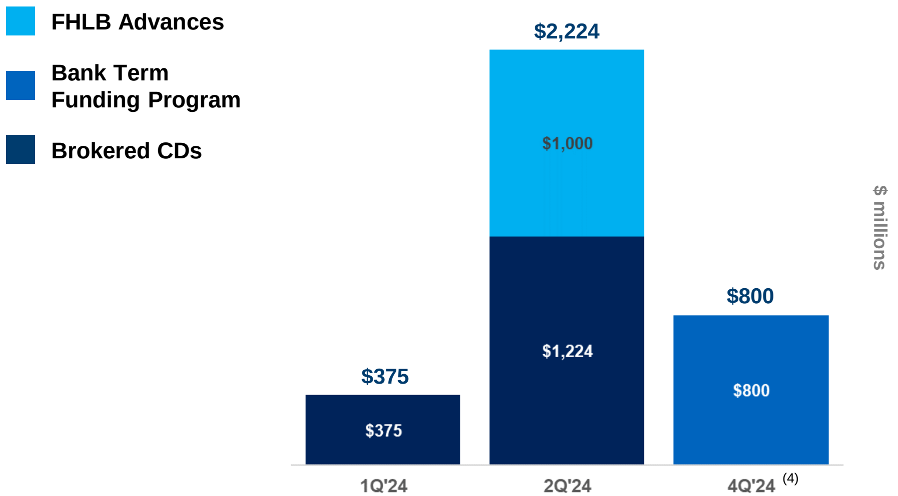
7.73%

Available Liquidity Sources

As of December 31, 2023	*$ billions*
Total Available Liquidity Sources *	19.4
Estimated Uninsured Deposits (2)	24.4
Estimated Uninsured Deposits, as adjusted (3)	16.2
Liquidity / Uninsured Deposits	**80%**
Liquidity / Adjusted Uninsured Deposits	**120%**

* Sources include Fed discount window, FHLB advances, Fed funds purchased, free bond collateral, cash sweep and cash/due from banks (including Fed account)

Wholesale Funding by Maturity



Weighted average rate	5.00%	5.11%	4.83%

(1) Tangible common equity is a non-GAAP measure. See reconciliation on slide 50; (2) Estimated uninsured deposits to be reported on schedule RC-O in the 12/31/23 Call Report; (3) Estimated uninsured deposits adjusted for deposits of wholly owned subsidiaries and for public funds or trust deposits that are collateralized. See reconciliation on slide 46. (4) BTFP funding was refinanced in January '24 with a new maturity date in 1Q'25 @ 4.76%.

Line of Business Updates

Milwaukee, WI

Commercial Banking
Commercial Capabilities

UMB

Commercial Lending Portfolio

Middle Market
- C&I Lending
- Owner-Occupied CRE
- Working capital lines
- Equipment loans

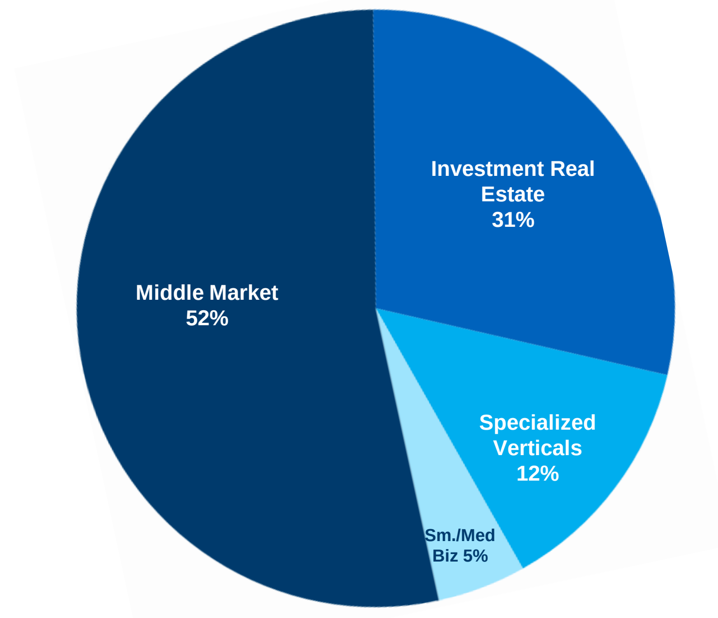
Investment Real Estate
- Office
- Industrial
- Hotel
- Retail
- Multi-family
- Student Housing

Lending Verticals
- Agribusiness
- Asset-based Lending
- Aviation Lending
- Beverage Lending
- Energy Lending

Small / Medium Business
- Business Banking
- Practice Finance
- Small Business Banking

Average Loan Balance & Composition

$19.5B



TOP 5 Prepaid & Purchasing Card Volume (1)

TOP 15 Commercial Credit Card Purchase Volume (1)

#31 of 100 Largest Farm Lenders in the U.S. (2)

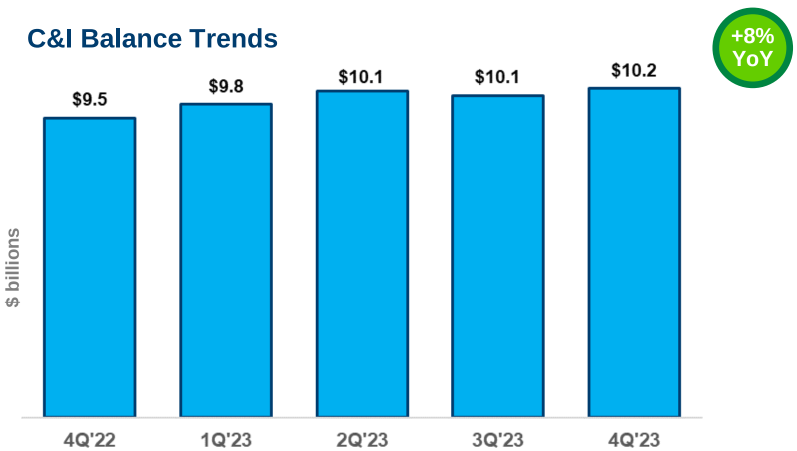
Average balance for 4Q'23, excludes credit card. (1) Rank among U.S. Visa & Mastercard Commercial Card Issuers, Source: Nilson Report, '22; (2) "Production ag lending" per ABA 3Q 2023, FDIC data. Additionally, UMB has significant relationships with "Agribusiness / Middle Market Ag" companies.

Commercial Banking
C&I Lending

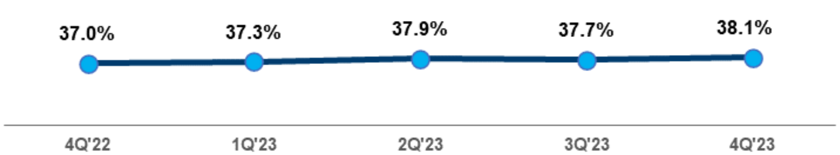
Commercial & Industrial Statistics

- Includes Middle Market, Lending Verticals & Small / Medium Business
- Considerations
  - Internal limits on loan size and projects per sponsor
  - Concentration guidelines for all lending verticals, monitored for changing conditions

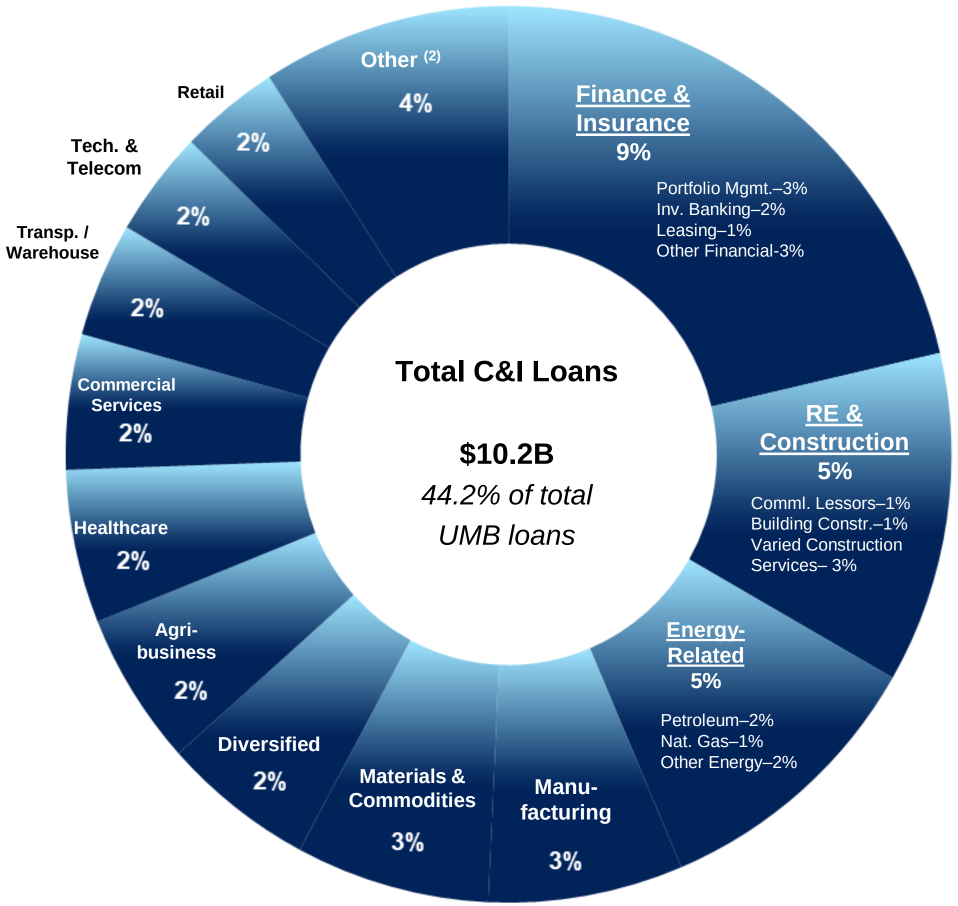
C&I Balance Trends



Average Line Utilization Trends



C&I Industries as % of UMB Loans (1)



(2) **Other - 4% of UMB loans**

- Food & Beverage
- Auto-related
- Entertainment / Recreation
- Consumer Services
- Apparel / Textiles
- Government / Education

(1) *End-of-period balances as of December 31, 2023.*

Commercial Banking
Commercial Real Estate

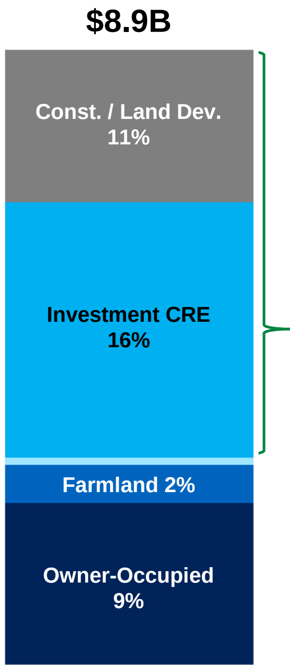
UMB

Commercial Real Estate Statistics

- **Total** CRE & Construction = 38% of UMB loans
- Owner-occupied – new purchase or refinance
- Real estate development – construction / perm financing, bridge financing, renovations
- Total UMB Commercial R/E Rate Type: (2)
    - Fixed – 40%
    - Variable – 60%

Investment CRE & Construction Portfolio

- Average Loan-to-Value: 57%
- Recourse: 90%
- Investment CRE Rate Type: (3)
    - Fixed – 30%
    - Variable – 70%



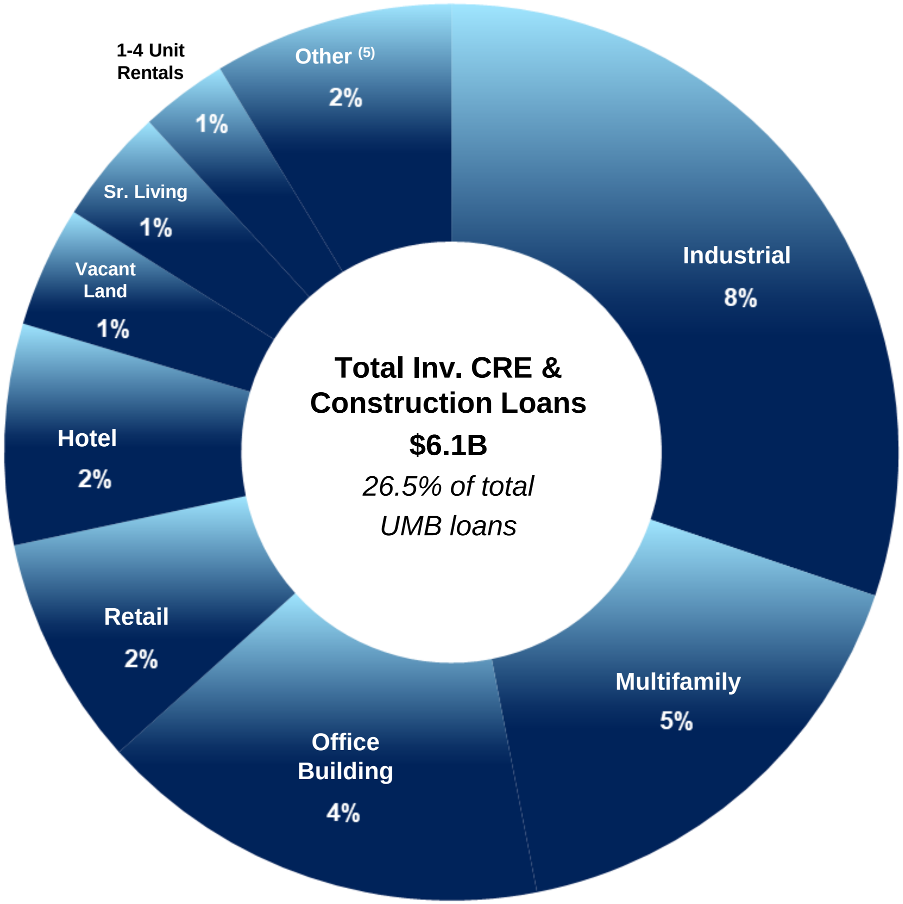
as of Dec. 31, 2023

1-4 Unit Residential Construction < 1% of total UMB loans

Regulatory Concentrations (4)

- Total non-farmland CRE / Total RBC: 185%
- Construction & Development / Total RBC: 71%

Investment CRE as % of UMB Loans (1)



(5) Other - 2% of UMB loans

- Mixed Use
- Student Housing
- Homebuilder for Sale
- Healthcare
- Special Purpose
- Self-storage
- Manufactured Housing

(1) End-of-period balances as of December 31, 2023; (2) Adjusting for customer interest rate swaps on variable rate loans, "fixed" rate exposure would be ~53% and variable rate exposure would be ~47%; (3) Swap adjusted: "fixed" rate exposure ~45% and variable rate exposure ~55%; (4) Tier 1 capital plus an adjusted ACL, per regulatory guidelines.

Investment Real Estate
Select Property Details

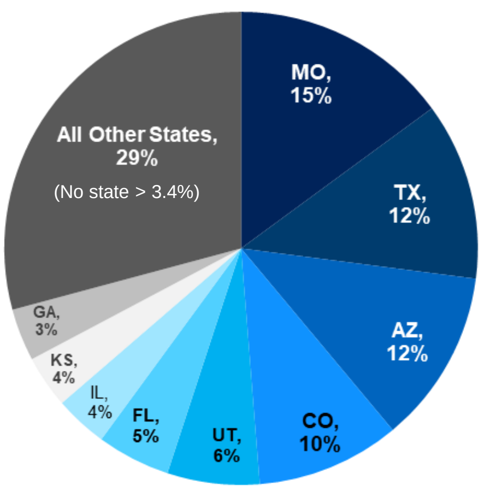
Total Investment CRE Portfolio

Average Loan-to-Value, Select Asset Classes

- Industrial: 61%
- Multifamily: 54%
- Retail: 55%
- Hotel: 49%
- Vacant Land: 53%
- Senior Living: 64%
- 1-4 Unit Rentals: 52%

Geographic Diversity – By Property Location

By outstanding balances as of December 31, 2023



Office CRE Portfolio

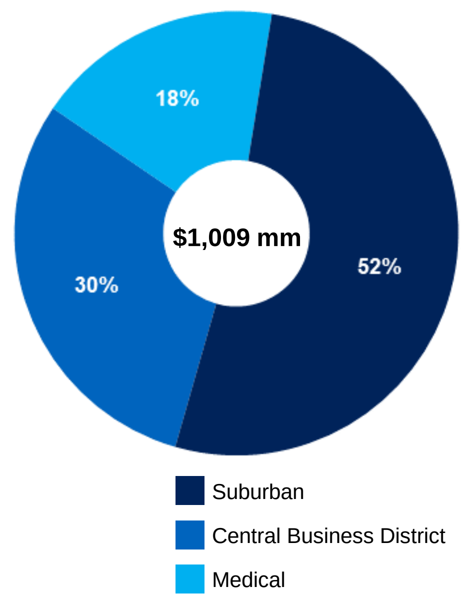
MSA Diversification

MSA	*$ millions*
Dallas-Fort Worth-Arlington, TX MSA	$228
Jacksonville, FL MSA	92
Kansas City, MO-KS MSA	79
Tampa-St. Petersburg-Clearwater, FL	69
St. Louis, MO-IL MSA	67
Raleigh-Cary, NC MSA	60
Milwaukee, WI MSA	53
Cincinnati-Middletown, OH-KY-IN MSA	52
Indianapolis-Carmel, IN MSA	50
Denver-Aurora, CO MSA	49
Phoenix-Mesa-Scottsdale, AZ MSA	45
Tulsa, OK MSA	34
Orlando-Kissimmee, FL MSA	20
Other	111
	$1,009

Statistics

- Average Loan: $9.2mm
- Average LTV: 64%
- Recourse: 84%

Market Type



Personal Banking
Consumer

Strategic & Stable Source of Low-Cost Funds

Consumer plays a strategic role for UMB as a large and stable source of deposits. Poised for continued asset growth

Total Average Deposits
$6.1B
-2% YoY

Total Average Loans
$3.1B
+10% YoY

High Customer Satisfaction

Consumer serves the personal banking needs of clients across all divisions of the bank

NPS Score

72.0
UMBF

Industry Average (2)
54.2

Hybrid Service & Sales Model – Provides broad products and services to meet diverse client needs

Retail Banking

Strategically positioned for sales growth

90 Banking Centers

235 ATMs

Private Banking

Growth engine for new customers; deepening existing relationships

25 Private Bankers Across 9 regions

$1.8B Avg. Private Banking Deposits

Mortgage

Provide competitive mortgage solutions for all client types

$2.6B Avg. Mortgage Balances
+11% YoY

1st Time Homebuyer Program - Down Payment Assistance to Qualified Buyers

Program to Date (Jan '22 – 4Q '23):

4,100+ Applications

$6.5mm Down payment assistance

Community Development

Expand diversity of client engagement in communities served

16 Financial Education Classes

11 Community Partners Served

258 Community Participants

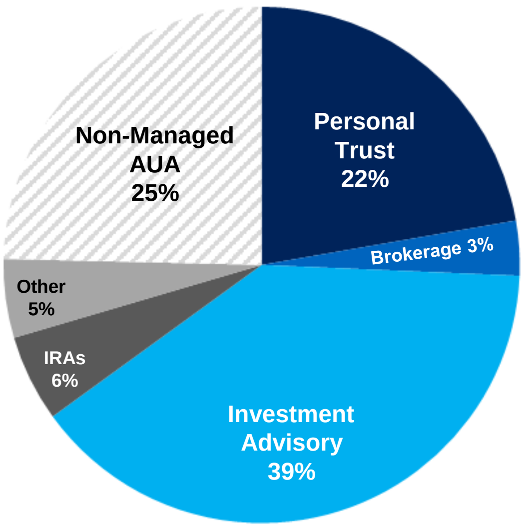
Digital Capabilities across Consumer

- Digital loan and deposit application and originations
- Mobile Banking: Deposits, transfers, bill pay, acct review & more

Metrics at, or for the quarter ended, 12/31/23. (1) Includes residential real estate and other consumer loans; (2) 2022 Net Promoter Score for 16 financial services companies - Medallia, Inc.

Personal Banking
Private Wealth Management

Customer Assets



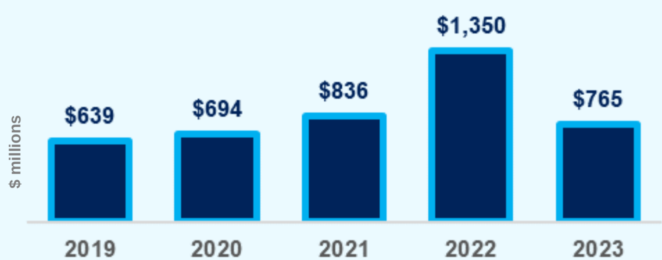
$12.3B

Managed Assets (AUM)

$4.0B

Non-Managed Assets (AUA)

New Assets / Sales (1)



Wealth Management

- Financial planning
- Discretionary investment management
- Strategic wealth solutions for ultra-high net worth families
- Business succession and exit planning
- Brokerage services

Personal Trust & Custody

- Trust administration
- Charitable foundation planning and administration
- Personal custody services
- Unique asset administration
- Fine art management
- Trust tax preparation

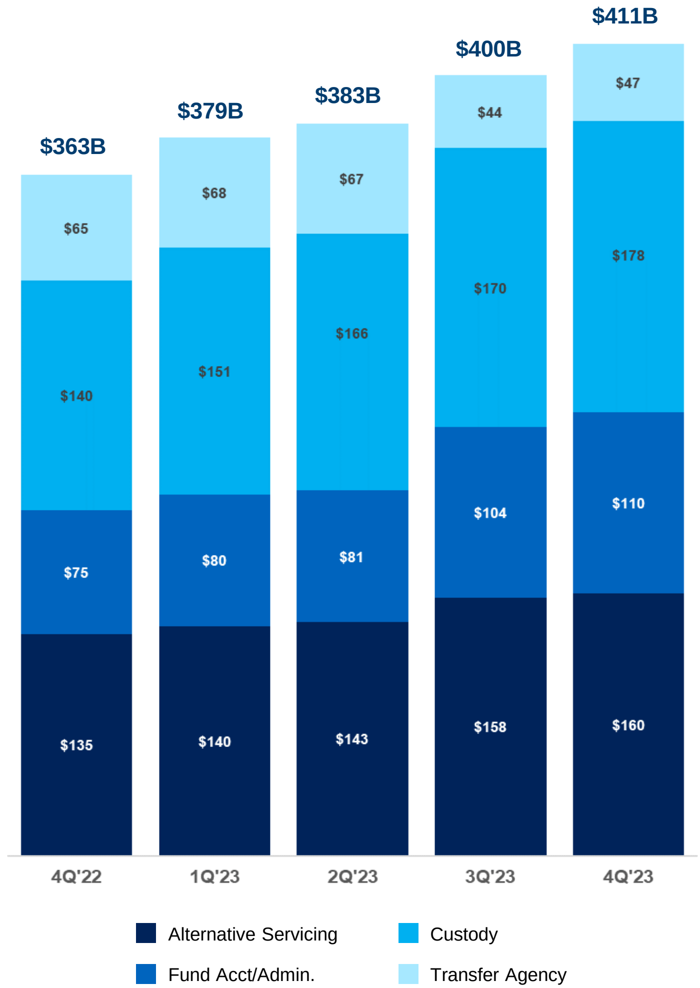
Asset Management

- Direct private equity investment access

Composition as of December 31, 2023. (1) Includes AUM and AUA.

Institutional Banking
Fund Services & Institutional Custody

Assets Under Administration



Note: Asset categories sum > total AUA due to shared client assets.

Registered Funds & Alternative Investments

Provides services for 1,700 funds, including registered and alternative investment funds, PE funds, real estate and venture capital funds and ETFs and more.

Best Interval Fund Administrator [1]

Best Administrator – Technology [2]

Best Administrator – GPs w/assets <$30B [3]

Industry Leader in Client Service [4]

Best Fund Accounting & Reporting Software [5]

Best New Fund Services Project [6]

Institutional Custody

One of the nation's leading providers of domestic and global custody, serving insurance companies, public & private corporations, nonprofits, municipalities, fund companies and endowments. Established in 1948.

Best Custodian [7] [8]

+353

Net New Accounts YTD

Custody AUA +27% YoY

(1) With Intelligence '19, '20, '22 & '23 Awards; (2) Hedgeweek US Awards '20 - '22; (3) PE Wire '21 & '22; (4) Global Custodian Fund Admin Survey '22; (5) Hedgeweek Emerging Managers Awards '23; (6) Global Custodian Leadership Awards '23; (7) HFM Services Awards '21 & '22; (8) Hedgeweek US Awards '23.

Institutional Banking
Corp/Specialty Trust & Capital Markets

UMB

Corporate Trust & Escrow Services

Provides trustee, paying agent and escrow services to municipal and corporate issuers.

#3
Paying Agent in U.S. (1) (2)

#3
Municipal Trustee in U.S. (1) (2)

$35B
Assets Under Administration

New Vertical: Reinsurance Trust Services
$1.2B AUA

Specialty Trust & Agency Solutions

Services for asset-backed securitizations, aviation and other transportation and real estate projects. Workout and successor trustee services on behalf of bondholders of defaulted transactions.

+$432mm
Growth in on-balance sheet deposits
+25% vs. 4Q'22

Winner – Turnaround Award for Divestiture of the Year (3)

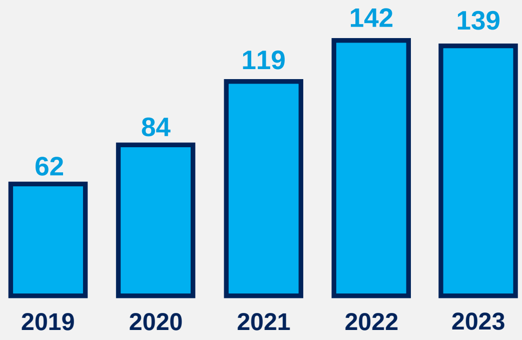
#1 Agent for Debtor-in-Possession financing (4)

Capital Markets Division

Capital solutions including fixed income sales, trading and underwriting for institutional, municipal and not-for-profit organizations.

Public Finance

Closed Deals



Examples of recent deals:

$549,760,000	**$215,000,000**	**$49,635,000**
Your Energy Partner OPPD Omaha Public Power District	MHDC	City of New Braunfels
Omaha Public Power District	Missouri Housing Development Commission	City of New Braunfels, Texas
Electric System Revenue Bonds	Single Family Mortgage Revenue Bonds	GO & Refunding Bonds, Comb Tax & Rev, Tax Notes
Series 2023AB	Series 2023CDE	Series 2023
UMB - Co-Manager	**UMB - Co-Manager**	**UMB Bank -Sr. Manager**

Products and services offered through UMB Bank Capital Markets Division
NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED.

(1)Thomson Reuters municipal rankings, September '23; (2) Ranked by number of issues; (3) M&A Advisor – '22; (4) Debtwire – ranking '21.

Institutional Banking
Investor Solutions & Healthcare Services

UMB

Investor Solutions

Our banking as a service (BaaS) solution includes deposit services for checking, saving, and investment accounts, including expanded FDIC insurance through our proprietary Sweep Program.

Sample Fintech Partnerships

access | Brex | Edelman Financial Engines

FIGURE | EMPOWER Personal Cash™ | SoFi

$53B

FDIC Sweep Assets Under Administration
~ 5.4 mm accounts

~75mm

Annual ACH Transactions

Healthcare Services

Provides a suite of tax-advantaged benefit accounts including Health Savings Accounts (HSAs), Flexible Spending Accounts (FSAs), Health Reimbursement Arrangements (HRAs), and Commuter Benefit Accounts.

INVESTOR'S BUSINESS DAILY BEST 2021 HSAs

Recognized for Investment Quality (1)

TOP 10

Top 10 HSA Custodians in the U.S. (2)

Named a Top HSA for Features & Investment Options (1)

1.6mm

HSA Account Holders

5.3mm

Benefit Cards

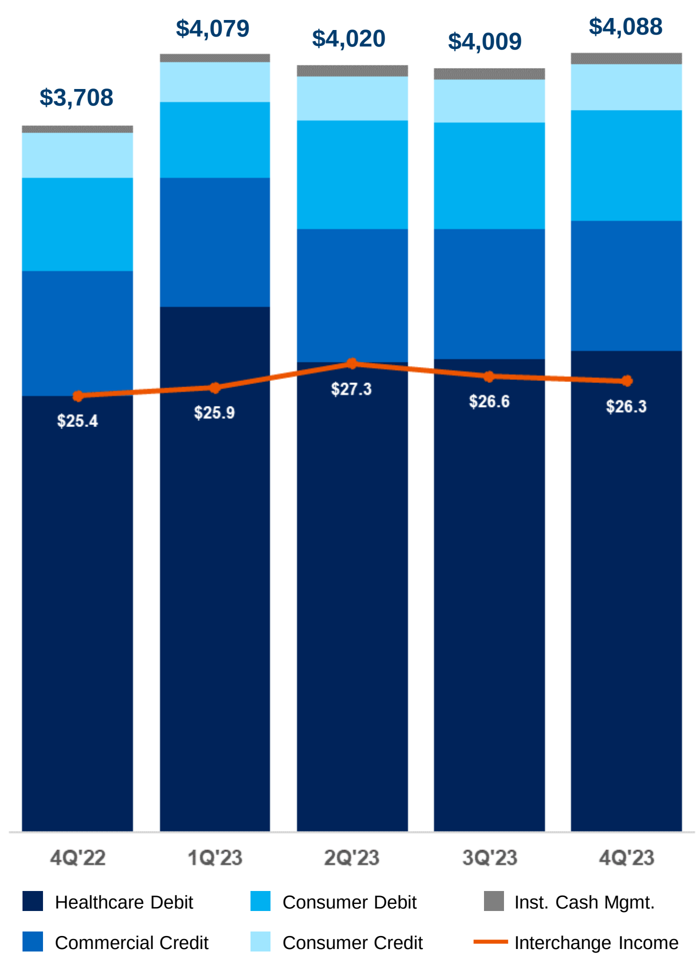
$3.9B

In HSA Assets & Deposits

(1) Investor's Business Daily '21; (2) #8 by both total accounts and total assets - Devenir Research Mid-Year '23.

Payments
Credit & Debit Card Products

Card Purchase Volume & Interchange Trends



4Q '23 Card Spend

$4.1B

#24

24th in U.S. Credit Card Purchase Volume (1)

Dollars in millions. (1) Rank in commercial, consumer and small business cards among top 50 U.S. issuers. Source: Nilson Report, December 2022.

Appendix

Phoenix, AZ

Governance
Our Board of Directors

Robin Beery
CC (Chair), RC

Janine Davidson
CC, GC

K.C. Gallagher
AC, RC

Greg Graves
Lead Independent Director, GC (Chair)

Mariner Kemper
Chairman of the Board

Gordon Lansford
AC (Chair), CC

Tim Murphy
AC, CC

Tammy Peterman
GC, RC

Kris Robbins
AC, RC (Chair)

Josh Sosland
GC, RC

Leroy Williams
CC, RC

Advisory Directors

Jim Rine
CEO, UMB Bank, n.a.

Tom Wood

AC = Audit Committee; CC = Compensation Committee; GC = Governance Committee; RC = Risk Committee

Forward-Looking Statements

This presentation contains, and our other communications may contain, 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 “believe,” “expect,” “anticipate,” “intend,” “estimate,” “project,” “outlook,” “forecast,” “target,” “trend,” “plan,” “goal,” or other words of comparable meaning or future-tense or conditional verbs such as “may,” “will,” “should,” “would,” or “could.”

Forward-looking statements convey our expectations, intentions, or forecasts about future events, circumstances, results, or aspirations. All forward-looking statements are subject to assumptions, risks, and uncertainties, which may change over time and many of which are beyond our control. You should not rely on any forward-looking statement as a prediction or guarantee about the future. Our actual future objectives, strategies, plans, prospects, performance, condition, or results may differ materially from those set forth in any forward-looking statement. Some of the factors that may cause actual results or other future events, circumstances, or aspirations to differ from those in forward-looking statements are described in our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, or other applicable documents that are filed or furnished with the U.S. Securities and Exchange Commission (SEC).

In addition to such factors that have been disclosed previously: macroeconomic and adverse developments and uncertainties related to the collateral effects of the collapse of, and challenges for, domestic and international banks, including the impacts to the U.S. and global economies; sustained levels of high inflation and the potential for an economic recession on the heels of aggressive quantitative tightening by the Federal Reserve, and impacts related to or resulting from instability in the Middle East and Russia’s military action in Ukraine, such as the broader impacts to financial markets and the global macroeconomic and geopolitical environments, may also cause actual results or other future events, circumstances, or aspirations to differ from our forward-looking statements.

Any forward-looking statement made by us or on our behalf speaks only as of the date that it was made. We do not undertake to update any forward-looking statement to reflect the impact of events, circumstances, or results that arise after the date that the statement was made, except to the extent required by applicable securities laws. You, however, should consult disclosures (including disclosures of a forward-looking nature) that we may make in any subsequent Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Report on Form 8-K, or other applicable document that is filed or furnished with the SEC.

Additional Information

Estimated Uninsured Deposit Analysis

	$ billions
Estimated Uninsured Deposits [1]	24.4
Less: Affiliate Deposits [2]	(2.0)
Less: Collateralized Deposits [3]	(6.2)
Estimated uninsured deposits ex. items above [4]	**$16.2**
Total Deposits [5]	**$35.8**
Estimated total uninsured deposits as % of Total Deposits	**68.2%**
Estimated uninsured deposits (ex. affiliate and collateralized) as % of Total Deposits	**45.3%**

Our Peer Group

ASB	Associated Banc-Corp	HWC	Hancock Whitney Corporation
BOKF	BOK Financial Corporation	ONB	Old National Bancorp
CADE	Cadence Bank	PNFP	Pinnacle Financial Partners, Inc.
COLB	Columbia Banking System, Inc.	PB	Prosperity Bancshares, Inc.
CBSH	Commerce Bancshares, Inc.	SNV	Synovus Financial Corp.
CFR	Cullen/Frost Bankers, Inc.	VLY	Valley National Bancorp
FNB	F.N.B. Corporation	WTFC	Wintrust Financial Corporation
FULT	Fulton Financial		

(1) Estimated uninsured deposits to be reported on schedule RC-O in the 12/31/23 Call Report; (2) Accounts of wholly-owned subsidiaries of UMBFC; (3) Public funds or corporate trust deposits that are collateralized; (4) Columns may not sum due to rounding differences; (5) Total deposits as of December 31, 2023.

Non-GAAP Reconciliations

The following are non-GAAP measures used from time to time. To the extent a non-GAAP measure is used in this presentation, a reconciliation to such measure's closest GAAP equivalent is provided below. UMB believes that these non-GAAP financial measures may be useful to investors because they adjust for items that management does not believe reflect the Company's fundamental operating performance.

- Net operating income is defined as GAAP net income, adjusted to exclude expenses related to acquisitions, severance expense, the FDIC special assessment and the cumulative tax impact of these adjustments.
- Operating PTPP income for the relevant period is defined as GAAP net interest income plus GAAP noninterest income, less noninterest expense, adjusted to reflect the impact of excluding expenses related to acquisitions, severance expense, and the FDIC special assessment.
- Tangible common equity ratio is calculated as total shareholders' equity, net of intangible assets, divided by total assets, net of intangible assets.
- Tangible common equity ratio, excluding accumulated other comprehensive income ("AOCI"), is calculated as total shareholders' equity, net of intangible assets and less AOCI, divided by total assets, net of intangible assets.
- Return on tangible common equity is calculated as net income divided by the company's average tangible shareholders' equity for the relevant period.
- Return on tangible common equity, excluding AOCI is calculated as net income, divided by the company's average tangible shareholders' equity exclusive of AOCI.
- Operating return on tangible common equity is calculated as net operating income, divided by the company's average tangible shareholders' equity.
- Operating return on tangible common equity, excluding AOCI is calculated as net operating income, divided by the company's average tangible shareholders' equity exclusive of AOCI.
- Tangible book value per share is defined as total shareholders' equity, net of intangible assets, divided by total shares outstanding.

Non-GAAP Reconciliations

Net Operating Income

	Three Months Ended		
	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
Net income (GAAP)	$ 70,923	$ 96,554	$ 100,173
Adjustments:			
Acquisition expense	52	70	851
Severance expense	1,207	2,359	358
FDIC special assessment	52,840	-	-
Tax-impact of adjustments (1)	(12,984)	(583)	(290)
Total Non-GAAP adjustments (net of tax)	41,115	1,846	919
Net Operating Income (Non-GAAP)	$ 112,038	$ 98,400	$ 101,092
Earnings per share - diluted (GAAP)	$ 1.45	$ 1.98	$ 2.06
Acquisition expense	-	-	0.02
Severance expense	0.02	0.05	0.01
FDIC special assessment	1.08	-	-
Tax-impact of adjustments (1)	(0.26)	(0.01)	(0.02)
Operating earnings per share - diluted (Non-GAAP)	$ 2.29	$ 2.02	$ 2.07

- Net operating income is defined as GAAP net income, adjusted to exclude expenses related to acquisitions, severance expense, the FDIC special assessment in fourth quarter 2023 and the cumulative tax impact of these adjustments.

Unaudited, dollars in thousands except per share data. (1) Calculated using a marginal tax rate of 24%.

Non-GAAP Reconciliations

UMB

Operating Pre-Tax, Pre-Provision Income

	Three Months Ended		
	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
Net interest income (GAAP)	$ 230,522	$ 222,287	$ 245,166
Noninterest income (GAAP)	140,254	133,317	125,497
Noninterest expense (GAAP)	289,974	231,441	237,818
Adjustments to arrive at operating noninterest expense:			
Acquisition expense	52	70	851
Severance expense	1,207	2,359	358
FDIC special assessment	52,840	-	-
Total Non-GAAP adjustments	54,099	2,429	1,209
Operating noninterest expense (Non-GAAP)	235,875	229,012	236,609
Operating pre-tax, pre-provision income (Non-GAAP)	$ 134,901	$ 126,592	$ 134,054
Net interest income EPS - diluted (GAAP)	$ 4.72	$ 4.56	$ 5.03
Noninterest income (GAAP)	2.87	2.73	2.57
Noninterest expense (GAAP)	5.93	4.74	4.88
Acquisition expense	-	-	0.02
Severance expense	0.02	0.05	0.01
FDIC special assessment	1.08	-	-
Operating pre-tax, pre-provision EPS - diluted (Non-GAAP)	$ 2.76	$ 2.60	$ 2.75

- Operating PTPP income for the relevant period is defined as GAAP net interest income plus GAAP noninterest income, less noninterest expense, adjusted to reflect the impact of excluding expenses related to acquisitions, severance expense, and the FDIC special assessment.

Unaudited, dollars in thousands except per share data.

Non-GAAP Reconciliations

Tangible Common Equity Ratio

Tangible Common Equity Ratio, ex. AOCI

	As of			
	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022	Dec. 31, 2008
Total shareholders' equity (GAAP)	$ 3,100,419	$ 2,806,659	$ 2,667,093	$ 974,811
Less: Intangible assets				
Goodwill	207,385	207,385	207,385	104,924
Other intangibles, net	71,012	73,060	78,724	18,101
Total intangibles, net	278,397	280,445	286,109	123,025
Total tangible shareholders' equity (Non-GAAP)	$ 2,822,022	$ 2,526,214	$ 2,380,984	$ 851,786
Less: Accumulated Other Comprehensive Income ("AOCI")	(556,935)	(792,371)	(702,735)	41,105
Total tangible shareholders' equity, ex. AOCI (Non-GAAP)	3,378,957	3,318,585	3,083,719	810,681
Total assets (GAAP)	$ 44,011,674	$ 41,464,682	$ 38,512,461	$ 10,976,596
Less: Intangible assets				
Goodwill	207,385	207,385	207,385	104,924
Other intangibles, net	71,012	73,060	78,724	18,101
Total intangibles, net	278,397	280,445	286,109	123,025
Total tangible assets (Non-GAAP)	$ 43,733,277	$ 41,184,237	$ 38,226,352	$ 10,853,571
Total equity / total assets (GAAP)	7.04%	6.77%	6.93%	8.88%
Tangible common equity / tangible assets (Non-GAAP)	6.45%	6.13%	6.23%	7.85%
Tangible common equity / tangible assets, ex. AOCI (Non-GAAP)	7.73%	8.06%	8.07%	7.47%

- Tangible common equity ratio is calculated as total shareholders' equity, net of intangible assets, divided by total assets, net of intangible assets.
- Tangible common equity ratio, excluding accumulated other comprehensive income ("AOCI"), is calculated as total shareholders' equity, net of intangible assets and less AOCI, divided by total assets, net of intangible assets.

Unaudited, dollars in thousands.

Non-GAAP Reconciliations

Return on Tangible Common Equity

Operating Return on Tangible Common Equity, Excluding AOCI

	Three Months Ended		
	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
Average shareholders' equity (GAAP)	$ 2,954,967	$ 2,891,854	$ 2,621,693
Less: Average Intangible assets			
Average Goodwill	207,385	207,385	194,805
Average Other intangibles, net	72,322	74,444	46,243
Total average intangibles, net	279,707	281,829	241,049
Total avg. tangible shareholders' equity (Non-GAAP)	$ 2,675,260	$ 2,610,025	$ 2,380,644
Less:			
Average AOCI	(730,891)	(706,062)	(741,438)
Total avg. tangible shareholders' equity ex. AOCI (Non-GAAP)	$ 3,406,151	$ 3,316,087	$ 3,122,082
Net Income (GAAP)	$ 70,923	$ 96,554	$ 100,173
Net Operating Income (Non-GAAP)	112,038	98,400	101,092
Return on average equity (ROE) (GAAP)	9.52%	13.25%	15.16%
Return on average tangible equity (Non-GAAP)	10.52%	14.68%	16.69%
Return on average tangible equity, ex. AOCI (Non-GAAP)	8.26%	11.55%	12.73%
Operating return on avg. tangible equity (Non-GAAP)	16.62%	14.96%	16.85%
Operating return on avg. tangible equity, ex. AOCI (Non-GAAP)	13.05%	11.77%	12.85%

- Return on tangible common equity is calculated as net income divided by the company's average tangible shareholders' equity for the relevant period.
- Operating return on tangible common equity is calculated as net operating income, divided by the company’s average tangible shareholders’ equity.
- Operating return on tangible common equity excluding AOCI is calculated as net operating income, divided by the company’s average tangible shareholders’ equity ex. AOCI.

Unaudited, dollars in thousands.

Non-GAAP Reconciliations

UMB

Tangible Book Value

	As of			
	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022	Dec. 31, 2008
Total shareholders' equity (GAAP)	$ 3,100,419	$ 2,806,659	$ 2,667,093	$ 974,811
Less: Intangible assets				
Goodwill	207,385	207,385	207,385	104,924
Other intangibles, net	71,012	73,060	78,724	18,101
Total intangibles, net	278,397	280,445	286,109	123,025
Total tangible shareholders' equity (Non-GAAP)	$ 2,822,022	$ 2,526,214	$ 2,380,984	$ 851,786
Total shares outstanding	48,554,127	48,529,097	48,319,404	40,947,795
Ratio of total shareholders' equity (book value) per share	$ 63.85	$ 57.83	$ 55.20	$ 23.81
Ratio of total tangible shareholders' equity (tangible book value) per share (Non-GAAP)	$ 58.12	$ 52.06	$ 49.28	$ 20.80

- Tangible book value per share is defined as total shareholders’ equity, net of intangible assets, divided by total shares outstanding.

Unaudited, dollars in thousands except per share data.