RED RIVER BANCSHARES, INC.

INVESTOR PRESENTATION

KBW Community Bank Investor Conference

AUGUST 8 - 9, 2023

As of June 30, 2023

Nasdaq: RRBI

Forward-Looking Statements and Non-GAAP Information

Statements in this presentation regarding our expectations and beliefs about our future financial performance and financial condition, as well as trends in our business and markets, are “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements often include words such as “believe,” “expect,” “anticipate,” “intend,” “plan,” “estimate,” “project,” “outlook,” or words of similar meaning, or future or conditional verbs such as “will,” “would,” “should,” “could,” or “may.” The forward-looking statements in this presentation are based on current information and on assumptions that we make about future events and circumstances that are subject to a number of risks and uncertainties that are often difficult to predict and beyond our control. As a result of those risks and uncertainties, our actual financial results in the future could differ, possibly materially, from those expressed in or implied by the forward-looking statements contained in this presentation and could cause us to make changes to our future plans. Additional information regarding these and other risks and uncertainties to which our business and future financial performance are subject is contained in the section titled “Risk Factors” in our most recent Annual Report on Form 10-K and subsequent quarterly reports on Form 10-Q, and in other documents that we file with the SEC from time to time. In addition, our actual financial results in the future may differ from those currently expected due to additional risks and uncertainties of which we are not currently aware or which we do not currently view as, but in the future may become, material to our business or operating results. Due to these and other possible uncertainties and risks, readers are cautioned not to place undue reliance on the forward-looking statements contained in this presentation or to make predictions based solely on historical financial performance. Any forward-looking statement speaks only as of the date on which it is made, and we do not undertake any obligation to update or review any forward-looking statement, whether as a result of new information, future developments or otherwise, except as required by law. All forward-looking statements, express or implied, included in this presentation are qualified in their entirety by this cautionary statement.

This presentation includes industry and trade association data, forecasts, and information that we have prepared based, in part, upon data, forecasts, and information obtained from independent trade associations, industry publications and surveys, government agencies, and other information publicly available to us, which information may be specific to particular markets or geographic locations. Some data is also based on our good faith estimates, which are derived from management’s knowledge of the industry and independent sources. Industry publications, surveys, and forecasts generally state that the information contained therein has been obtained from sources believed to be reliable. Statements as to our market position are based on market data currently available to us. Although we believe these sources are reliable, we have not independently verified the information. While we are not aware of any misstatements regarding our industry data presented herein, our estimates involve risks and uncertainties and are subject to change based on various factors. Similarly, we believe our internal research is reliable, even though such research has not been verified by any independent sources.

Our accounting and reporting policies conform to United States GAAP and the prevailing practices in the banking industry. Certain financial measures used by management to evaluate our operating performance are discussed as supplemental non-GAAP performance measures. In accordance with SEC rules, we classify a financial measure as being a non-GAAP financial measure if that financial measure excludes or includes amounts, or is subject to adjustments that have the effect of excluding or including amounts, that are included or excluded, as the case may be, in the most directly comparable measure calculated and presented in accordance with GAAP as in effect from time to time in the U.S. Management and the board of directors review tangible book value per share, tangible common equity to tangible assets, realized book value per share, and SBA PPP-adjusted metrics as part of managing operating performance. However, these non-GAAP financial measures should not be considered in isolation or as a substitute for the most directly comparable or other financial measures calculated in accordance with GAAP. Moreover, the manner that we calculate the non-GAAP financial measures that are discussed may differ from that of other companies reporting measures with similar names. It is important to understand how such other banking organizations calculate and name their financial measures similar to the non-GAAP financial measures discussed by us when comparing such non-GAAP financial measures. A reconciliation of non-GAAP financial measures to the comparable GAAP financial measures is included in the Appendix to this presentation.

Glossary of Terms

RED RIVER BANCSHARES, INC.

- 1Q22 – First Quarter of 2022
- 2Q22 – Second Quarter of 2022
- 3Q22 – Third Quarter of 2022
- 4Q22 – Fourth Quarter of 2022
- 1Q23 – First Quarter of 2023
- 2Q23 – Second Quarter of 2023
- 3Q23 – Third Quarter of 2023
- 4Q23 – Fourth Quarter of 2023
- 1H23 – First Half of 2023
- 2H23 – Second Half of 2023
- 1-4 FR – One-to-four family residential
- ACL – Allowance for credit losses
- AFS – Available-for-sale
- AOCI – Accumulated other comprehensive income or loss
- API – Application Programming Interface
- B.A. – Bachelor of Arts
- B.B.A. – Bachelor of Business Administration
- bp(s) – Basis point(s)
- B.S. – Bachelor of Science
- C&D – Construction and land development loans
- C&I – Commercial and industrial loans
- CAGR – Compound annual growth rate
- CECL – Current Expected Credit Losses
- CGMA – Chartered Global Management Accountant
- CL(s) – Criticized Loans
- CMBS – Commercial Mortgage-Backed Securities
- CPA – Certified Public Accountant
- CRA – Community Reinvestment Act
- CRE – Commercial real estate
- DDA – Demand deposit accounts
- EPS – Earnings per share
- FDIC – Federal Deposit Insurance Corporation
- FHLB – Federal Home Loan Bank
- FOMC – Federal Open Market Committee
- FTE – Fully taxable equivalent basis
- GAAP – Generally Accepted Accounting Principles in the United States of America
- HFI – Held for investment
- HFS – Held for sale
- HTM – Held-to-maturity
- ICS – Insured Cash Sweep
- IPO – Initial public offering
- J.D. – Juris Doctor
- K – Dollars in thousands
- LDPO – Loan and deposit production office
- LIBOR – London Inter-Bank Offered Rate
- LPO – Loan production office
- L.L.C. – Limited liability company
- L.L.P. – Limited liability partnership
- M – Dollars in millions
- M.B.A. – Master of Business Administration
- MBS – Mortgage-backed securities
- N/A – Not applicable
- NIM – Net interest margin
- NOW – Negotiable order of withdrawal
- NPA(s) – Nonperforming asset(s)
- NPL(s) – Nonperforming loan(s)
- PPP – Paycheck Protection Program
- P2P – Peer-to-peer
- ROA – Return on average assets
- ROE – Return on average equity
- SBA – Small Business Administration
- SBIC – Small Business Investment Company
- SEC – United States Securities and Exchange Commission
- U.S. – United States of America
- vs. – Versus

Strong. Stable.

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RED RIVER BANK

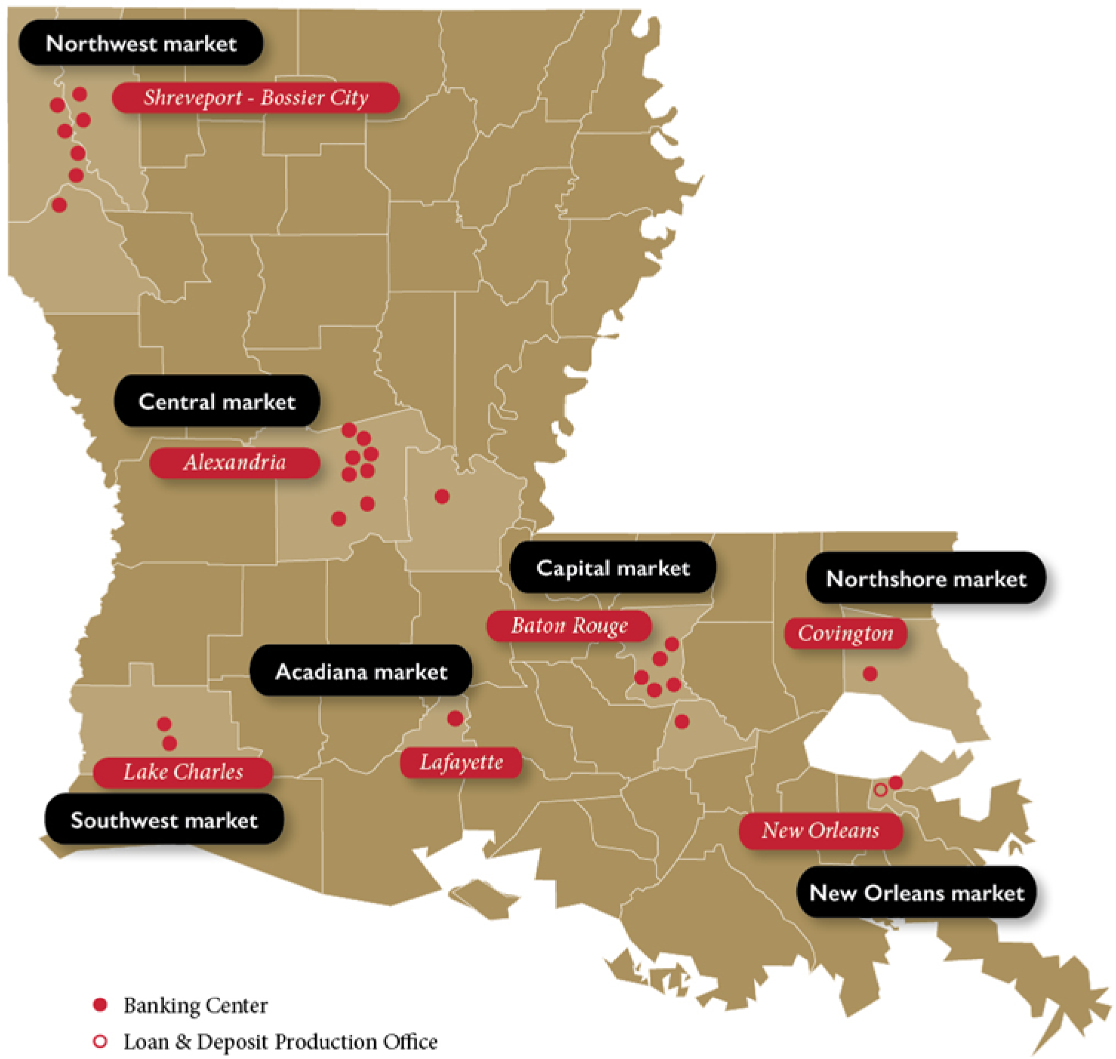
redriverbank.net

Member FDIC

Company Overview

RED RIVER BANCSHARES, INC.

- Established in 1998 in Alexandria, Louisiana
- Completed IPO in May 2019
- Nasdaq: RRBI
- Included in Russell 2000 Index
- As of June 30, 2023:
  - Assets = $3.03 billion
  - Loans HFI = $1.95 billion
  - Securities = $739.0 million
  - Deposits = $2.66 billion
  - Market capitalization = $352.6 million
- Ownership
  - Insiders = 34%
  - Institutions = 19%[1]
  - Public and other = 47%



- Named in American Banker's "2022 Best Banks to Work For"[2]
- Named among the top 2.7% of all banks nationwide as "best-in-state"[3]
- Ranked 45th in S&P Global Market Intelligence's Top 50 Community Banks $3 - $10 billion[4]
- Sixth largest Louisiana-headquartered bank based on assets as of March 31, 2023

[1]Source: Based on filings made with the SEC, as reported by S&P Capital IQ Pro
[2]Source: According to an article published by American Banker on November 15, 2022
[3]Source: According to an article published by Forbes on June 21, 2022
[4]Source: According to a press release issued by S&P Global Market Intelligence on March 22, 2023

Company Strengths

- Consistent, long-term track record of financial results and steady growth
- Conservative credit culture with solid asset quality
- Granular, diversified, relationship-based loan and deposit portfolios
- Solid liquidity position
- No internet-sourced or brokered deposits
- Minimal short-term borrowings
- No long-term borrowings
- Primarily *de novo* growth strategy with selective strategic expansion into new markets
- Strategic banking center network
  - Operating in the largest markets in Louisiana
  - 27 banking centers and an LDPO in Louisiana
  - Average deposits per center = $98.7 million
- Strong capital position
  - Well capitalized
  - Consistent quarterly dividends
  - Stock repurchase program in place
- Continuity of leadership – four of our top executives are part of the founding management team

History & Strategy

RED RIVER BANCSHARES, INC.

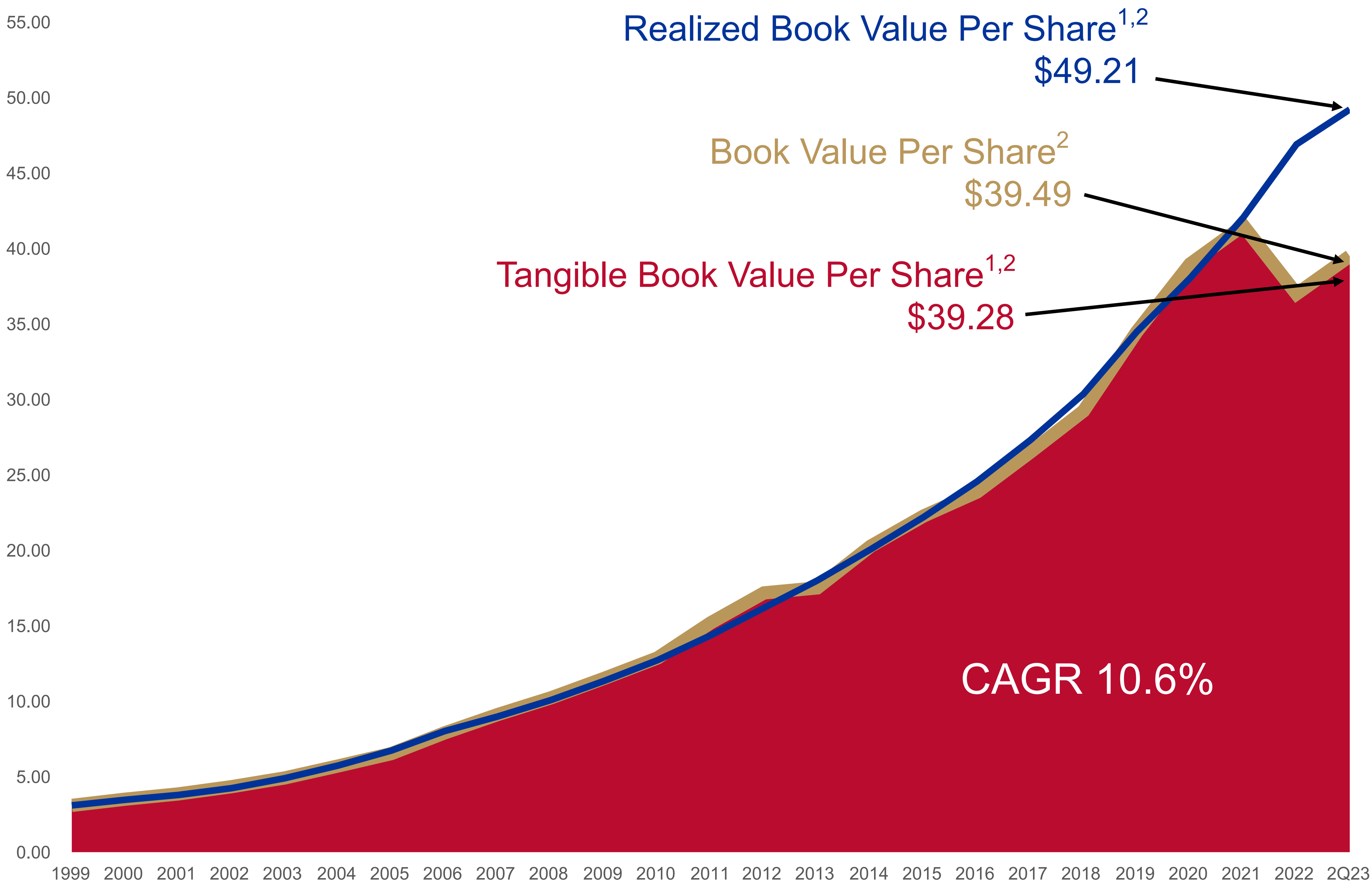
Company History

Red River Bancshares, Inc.

1998	Completed first stock offering of $12.4M
1999	Red River Bank opened in Rapides Parish
2000	Completed stock offering of $4.0M
2003	Acquired Bank of Lecompte in Central Louisiana
2006	Expanded into Northwest Market via banking center, and completed stock offering of $5.0M
2009	Completed stock offering of $7.4M
2013	Expanded into Capital Market via Fidelity Bancorp, Inc. acquisition
2017	Expanded into Southwest Market via LPO. Completed stock offering of $12.1M
2019	Expanded into Northshore Market via LPO. Completed IPO of $26.8M
2020	Expanded into Acadiana Market via LDPO
2021	Expanded into New Orleans Market via LDPO

Book Value Growth

RED RIVER BANCSHARES, INC.



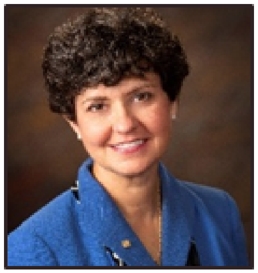
Note: Each year on the Book Value Graph represents year-end financial data.
[1]Non-GAAP measure. See "Forward-Looking Statements and Non-GAAP Information" on slide 2 and "Non-GAAP Reconciliation" slides in the Appendix for additional information.
[2]Adjusted for 2-for-1 stock split with a record date of October 1, 2018 and 15-for-1 stock split with a record date of November 30, 2005.

Leadership Team

RED RIVER BANCSHARES, INC.

R. Blake Chatelain

- President, Chief Executive Officer, and Director
- Founding management
- Previously Executive Vice President of Rapides Bank & Trust Company, a subsidiary of First Commerce Corporation
- B.S. in Finance from Louisiana State University



Isabel V. Carriere, CPA, CGMA

- Executive Vice President and Chief Financial Officer
- Founding management
- Previously Manager of the Financial Planning Department at Whitney National Bank, in the Financial Planning and Financial Reporting Department of First Commerce Corporation, and audited depository organizations with KPMG
- B.S. in Management from Tulane University

Bryon C. Salazar

- Executive Vice President, Chief Lending Officer, and Director[1]
- Founding management
- Current Past Chairman for the Board of Trustees of Rapides Regional Medical Center
- Previously Commercial Banker at Rapides Bank & Trust Company
- B.S. in Finance from Louisiana State University

Tammi R. Salazar

- Executive Vice President and Chief Operating Officer[1]
- Founding management
- Previously Vice President of Rapides Bank & Trust Company
- Director of the Rapides Children's Advocacy Network, River Oaks Art Center, and Christus Cabrini Foundation
- B.S. in Finance from Louisiana Tech University

Julia E. Callis, J.D.

- Senior Vice President, General Counsel, and Corporate Secretary
- Joined Red River Bank in 2020
- Previously with Cleco Corporate Holdings L.L.C. and Thompson & Knight L.L.P.
- B.A. in English from Vanderbilt University and J.D. from Louisiana State University

G. Bridges Hall, IV

- Senior Vice President and Chief Credit Policy Officer[1]
- Joined Red River Bank in 2006
- Previously Credit Department Manager (Dallas) at Hibernia National Bank
- B.S. in Business Administration from Northwestern State University, M.B.A. from Louisiana State University-Shreveport, and attended the Graduate School of Banking at Louisiana State University

Debbie B. Triche

- Senior Vice President and Retail Administrator[1]
- Joined Red River Bank in 2000
- Previously Vice President and Retail Branch Manager at Rapides Bank & Trust Company
- B.S. in Marketing from Louisiana Tech University

Andrew B. Cutrer

- Senior Vice President and Director of Human Resources
- Joined Red River Bank in 2001
- Previously Director of Human Resources at Bunkie General Hospital
- B.S. in Management and Marketing from Louisiana College and M.B.A. from Louisiana Tech University

David K. Thompson

- Capital Market President[1]
- Joined Red River Bank in 2015
- Previously Baton Rouge Commercial Group Lender at IBERIABANK
- B.B.A. in Finance from University of Louisiana-Monroe and attended the Graduate School of Banking at Louisiana State University

[1] Position with Red River Bank

Growth Strategies

Red River Bancshares, Inc.

De Novo Growth Strategies

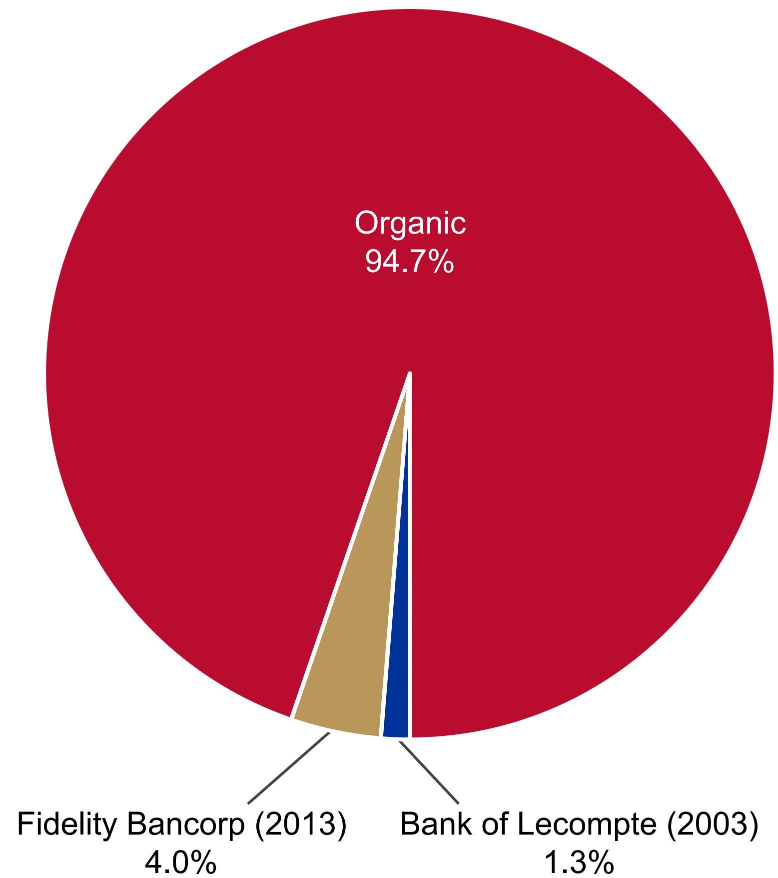
- Disciplined, targeted investments for smart growth
- Target markets with significant disruption by competitors
- Concentrate on urban markets with growth potential
- Focus on markets where market share is held by large national and regional banks
- Hire experienced leadership from the market to build a team
- Offer an authentic, full-service, relationship-based community bank experience
- Establish presence initially with an LDPO then build or buy and remodel a banking center

Disciplined Acquisition Strategy

- Successfully integrated two acquisitions and positioned to capitalized on future opportunities

Historical Asset Growth Method

As of June 30, 2023



Guiding Principles - Relationship-Based Lending

Conservative Credit Culture

- Our founding management team developed the initial credit culture, predicated upon conservative underwriting principles carried over from regional bank experience. This same team has overseen the implementation and periodic adjustment of these core lending tenets over a 24-year time frame.

Experienced Bankers

- In addition to a cohesive, long-tenured executive management team, we enjoy the benefits of an experienced group of client-facing bankers, which has resulted in steady, diversified, organic loan growth, combined with excellent quality metrics.

Relationship-Driven Client Focus

- Our loan portfolio is well below CRE portfolio concentration guidelines, which complements our conservative lending philosophy and simultaneously drives our relationship-driven client focus, resulting in a strong core deposit base and enhanced liquidity options.

"Footprint" Lending

- We have a low level of participations purchased and shared national credits. Our portfolio is further characterized by modest hold limits, strong oversight, and rapid response to problem loan resolution.

Consistent Lending Standards

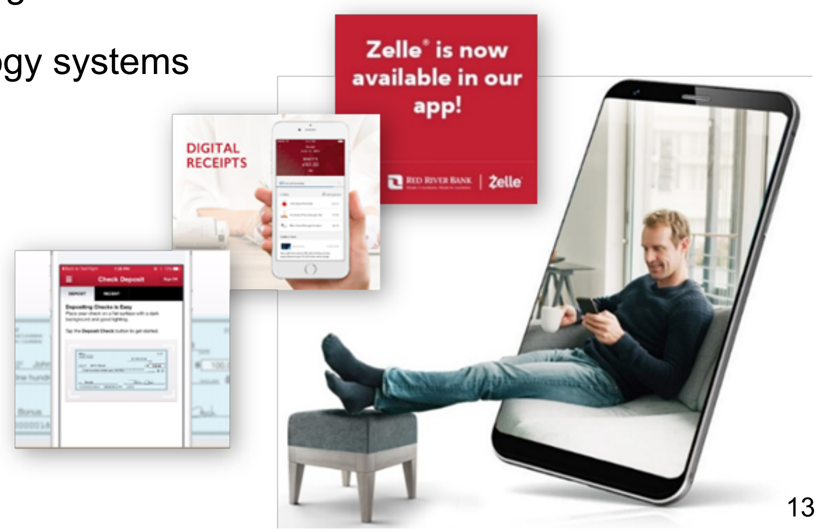
- Fundamental goals continue to include measured growth, broad diversification, and high-quality performance. Underwriting standards remain consistent regardless of economic conditions.

Digital Banking - Embracing Digital Innovation

RED RIVER BANCSHARES, INC.

Strategies and Recent Systems

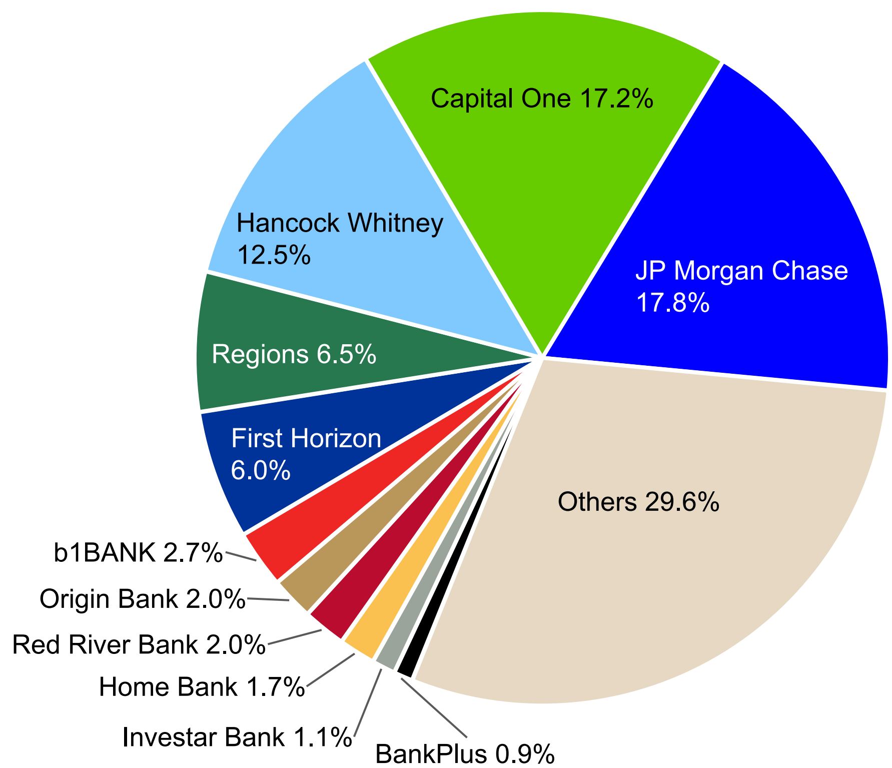
- Robust commercial treasury systems
- P2P payments platform provided by Zelle®
- Online and mobile banking channels: mobile deposit, digital receipts, Apple Pay, mobile wallet, and debit card controls
- Launched redesigned, contactless debit cards
- Online deposit account opening and mortgage applications
  - Implemented an upgrade to include a “Verification of Life” system in an effort to reduce fraud
- Implemented SQN Banking Systems’ fraud detection system to screen all checks
- Mobile, automated small-dollar loan system
- Implementing MeridianLink system for end-to-end small business and consumer loan application system
- Completed our core system upgrade to improve efficiency, accuracy, and streamline operations
- Utilize API for automation of processes to improve efficiency and manage headcount
- Invested in the JAM FINTOP Banktech fund as a resource for technology systems



Competitive Landscape

- Red River Bank holds 2.0% of Louisiana deposits[1]
- 60.0% of Louisiana deposits are held by large national or regional banks[1]
- Large banks de-emphasizing markets we serve
- TD Bank Group announced an agreement to purchase First Horizon in 1Q22. This potential merger was cancelled in 2Q23.

Deposits in Louisiana[1]
$144.0 billion
As of June 30, 2022



Deposit Market Share as of June 30, 2022[1]				
	Red River Bank			Total
Markets	Rank	% of Marketshare	$M	$M
Central Market	1st	38.5%	$ 1,613	$ 4,187
Northwest Market	8th	5.2%	$ 553	$ 10,734
Capital Market	8th	2.4%	$ 582	$ 24,034
Southwest Market	12th	1.0%	$ 65	$ 6,395
Northshore Market	21st	0.3%	$ 26	$ 8,066
Acadiana Market	22nd	0.3%	$ 23	$ 9,001
New Orleans Market	n/a	n/a	n/a	$ 37,793
State of Louisiana	8th	2.0%	$ 2,862	$ 143,964

[1]Source: FDIC, Deposits as of June 30, 2022

2022 Overview

RED RIVER BANCSHARES, INC.

2022 Financial and Operational Highlights

RED RIVER BANCSHARES, INC.

- Assets decreased 4.4% to $3.08 billion
- Non-PPP loans HFI[1] increased 15.0% to $1.92 billion
- Deposits decreased 3.8% to $2.80 billion
- Repurchased 4,465 shares of common stock at an aggregate cost of $218,000

(dollars in thousands, except per share data)	For the Year Ended 12/31/22	For the Year Ended 12/31/21
Assets	$ 3,082,686	$ 3,224,710
Non-PPP Loans HFI[1]	$ 1,916,253	$ 1,666,282
Deposits	$ 2,798,936	$ 2,910,348
Stockholders' Equity	$ 265,753	$ 298,150
Book Value Per Share	$ 36.99	$ 41.52
Tangible Book Value Per Share[1]	$ 36.78	$ 41.31
Realized Book Value Per Share[1]	$ 46.90	$ 42.05
Loans HFI to Deposits Ratio	68.46%	57.86%
Noninterest-bearing Deposits to Deposits Ratio	38.96%	39.50%
NPAs to Assets	0.08%	0.03%
NPLs to Loans HFI	0.12%	0.02%
Allowance for Loan Losses to Loans HFI	1.08%	1.14%
Stockholders' Equity to Assets	8.62%	9.25%
Tangible Common Equity to Tangible Assets[1]	8.57%	9.20%
Total Risk-Based Capital Ratio	17.39%	17.83%
Tier 1 Risk-Based Capital Ratio	16.38%	16.76%
Leverage Ratio	10.71%	9.67%

- Record high net income of $36.9 million for 2022
- EPS (diluted) was $5.13 and ROA was 1.18%
- Net interest income for 2022 increased 20.8%, or $14.9 million, to $86.6 million
- NIM FTE increased 26 bps to 2.86%
- Opened first full-service banking centers in our Acadiana and New Orleans Markets
- Opened the new operations center building

(dollars in thousands, except per share data)	For the Year Ended 12/31/22	For the Year Ended 12/31/21
Net Income	$ 36,916	$ 32,952
EPS, Diluted	$ 5.13	$ 4.51
Cash Dividends Per Share	$ 0.28	$ 0.28
ROA	1.18%	1.13%
ROE	13.98%	11.21%
NIM FTE	2.86%	2.60%
Efficiency Ratio	56.60%	56.39%
Net Charge-offs to Average Loans	0.02%	0.04%

[1]Non-GAAP measure. See "Forward-Looking Statements and Non-GAAP Information" on slide 2 and "Non-GAAP Reconciliation" slides in the Appendix for additional information.

2022 Selected Income Comparison

Red River Bancshares, Inc.

(dollars in thousands)	For the Year Ended 12/31/22	For the Year Ended 12/31/21	Variance $	Variance %
Interest and Dividend Income, excluding SBA PPP[1]	$ 93,705	$ 71,566	$ 22,139	30.9 %
SBA PPP Loan Income	670	5,773	(5,103)	(88.4)%
Total Interest and Dividend Income	$ 94,375	$ 77,339	$ 17,036	22.0 %
Interest Expense	7,736	5,617	2,119	37.7 %
Net Interest Income	$ 86,639	$ 71,722	$ 14,917	20.8 %
Mortgage Loan Income	$ 3,096	$ 8,676	$ (5,580)	(64.3)%
Net Income	$ 36,916	$ 32,952	$ 3,964	12.0 %

- Net interest income was positively impacted by the higher interest rate environment in 2022 and an improved asset mix
- Our participation in the SBA PPP loan program was materially complete as of December 31, 2022
  - SBA PPP income decreased in 2022 due to fewer SBA PPP loans
- Mortgage loan income decreased due to rising mortgage interest rates and home prices, as well as limited housing stock available for purchase in 2022

[1]Non-GAAP measure. See “Forward-Looking Statements and Non-GAAP Information” on slide 2.

Second Quarter 2023

Red River Bancshares, Inc.

Second Quarter 2023 Financial Results

RED RIVER BANCSHARES, INC.

- Consistent assets
- Higher loans
- Lower deposits
- Minimal short-term borrowings
- No long-term borrowings
- Solid liquidity
- Consistent, good asset quality
- Well capitalized
- Net income decreased due to higher deposit interest expense
- EPS, diluted, decreased by $0.08 to $1.25 for 2Q23
- Net interest income and NIM FTE were negatively impacted by deposit rate pressures and higher deposit costs
- NPAs to assets ratio consistent
- ACL to loans HFI ratio = 1.08%
- Well capitalized: Leverage Ratio = 11.48%

(dollars in thousands, except per share data)	2Q23	1Q23	2Q22
Net Income	$ 8,968	$ 9,598	$ 9,147
EPS, Diluted	$ 1.25	$ 1.33	$ 1.27
Book Value Per Share	$ 39.49	$ 38.54	$ 35.34
Tangible Book Value Per Share[1]	$ 39.28	$ 38.33	$ 35.12
Realized Book Value Per Share[1]	$ 49.21	$ 48.09	$ 44.23
Cash Dividends Per Share	$ 0.08	$ 0.08	$ 0.07
ROA	1.20%	1.28%	1.15%
ROE	12.78%	14.33%	14.30%
NIM FTE	2.96%	3.13%	2.75%
Efficiency Ratio	58.63%	56.84%	55.64%
Loans HFI to Deposits	73.10%	70.36%	64.61%
Noninterest-bearing Deposits to Deposits	37.14%	38.81%	41.46%
NPAs to Assets	0.07%	0.08%	0.03%
ACL to Loans HFI	1.08%	1.09%	1.05%
Net Charge-offs to Average Loans	—%	—%	0.01%
Assets	$ 3,027,194	$ 3,030,582	$ 3,121,113
Loans HFI	$ 1,947,631	$ 1,921,850	$ 1,841,585
Deposits	$ 2,664,183	$ 2,731,385	$ 2,850,195
Stockholders' Equity	$ 283,372	$ 276,640	$ 253,596
Realized Common Equity[1]	$ 353,065	$ 345,181	$ 317,400
Stockholders' Equity to Assets	9.36%	9.13%	8.13%
Tangible Common Equity to Tangible Assets[1]	9.31%	9.08%	8.08%
Total Risk-Based Capital Ratio	18.13%	17.89%	16.89%
Leverage Ratio	11.48%	11.02%	9.73%

[1]Non-GAAP measure. See "Forward-Looking Statements and Non-GAAP Information" on slide 2 and "Non-GAAP Reconciliation" slides in the Appendix for additional information.

Balance Sheet

RED RIVER BANCSHARES, INC.

- Assets consistent at $3.03 billion
- Loans HFI increased $25.8 million, or 1.3%, to $1.95 billion
- Securities decreased $26.2 million, or 3.4%, to $739.0 million due to maturities and principal repayments
- Deposits decreased $67.2 million, or 2.5%, as a result of the changing interest rate environment impacting customer deposit movement and activity, combined with normal tax payments
- Noninterest-bearing deposits to deposits ratio = 37.14%
- Loans HFI to deposits ratio = 73.10%
- No brokered deposits
- FHLB advance = $60.0 million, short-term
- No long-term or subordinated debt

(dollars in thousands)	As of 6/30/23	As of 3/31/23	As of 12/31/22
ASSETS			
Cash and due from banks	$ 36,662	$ 34,491	$ 37,824
Interest-bearing deposits in other banks	185,409	194,727	240,568
Securities AFS, at fair value	588,478	611,794	614,407
Securities HTM, at amortized cost	146,569	149,417	151,683
Equity securities, at fair value	3,946	4,010	9,979
Loans HFS	4,586	2,046	518
Loans HFI	1,947,631	1,921,850	1,916,267
Allowance for credit losses	(21,085)	(20,854)	(20,628)
Other Assets	134,998	133,101	132,068
Total Assets	**$ 3,027,194**	**$ 3,030,582**	**$ 3,082,686**
LIABILITIES			
Noninterest-bearing deposits	$ 989,509	$ 1,060,042	$ 1,090,539
Interest-bearing deposits	1,674,674	1,671,343	1,708,397
Total Deposits	2,664,183	2,731,385	2,798,936
Other borrowed funds	60,000	—	—
Other accrued expenses and liabilities	19,639	22,557	17,997
Total Liabilities	**2,743,822**	**2,753,942**	**2,816,933**
STOCKHOLDERS' EQUITY			
Preferred stock, no par value	—	—	—
Common stock, no par value	59,187	59,788	60,050
Additional paid-in capital	2,248	2,157	2,088
Retained earnings	291,630	283,236	274,781
AOCI	(69,693)	(68,541)	(71,166)
Total Stockholders' Equity	283,372	276,640	265,753
Total Liabilities and Stockholders' Equity	**$ 3,027,194**	**$ 3,030,582**	**$ 3,082,686**

Liquidity and Borrowing Availability

RED RIVER BANCSHARES, INC.

Liquidity

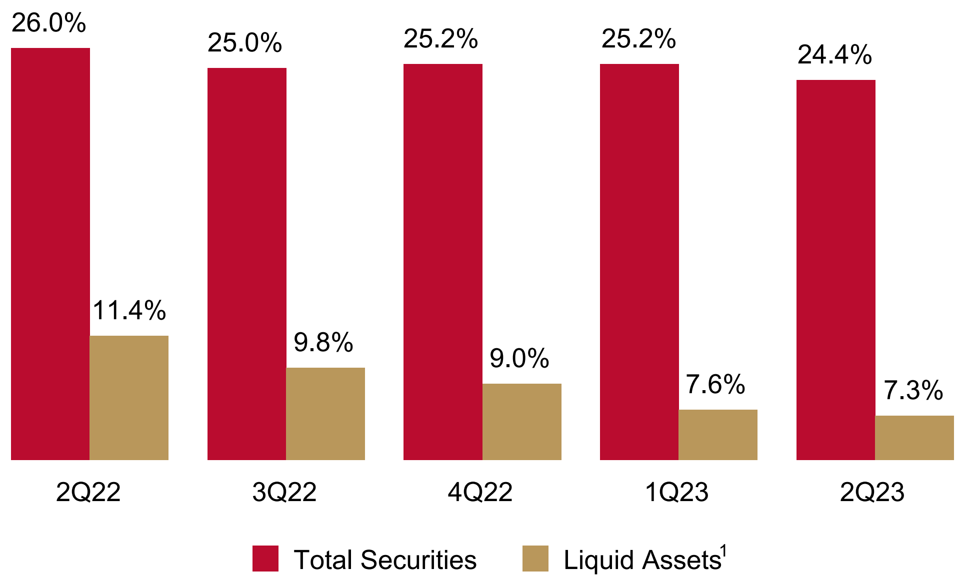
- Liquid Assets[1] = $222.1 million, or 7.34% of assets, as of 6/30/23 with $182.0 million average for 2Q23
- Securities AFS pledged to secure public entity deposits = $189.4 million
- Estimated cash flows from securities, assuming consistent interest rates
  - $100.0 million principal repayments from July to December 2023
  - $140.0 million principal repayments in 2024

Borrowing Availability

- $1.27 billion in available borrowing capacity through the following sources:
  - Federal Home Loan Bank = $830.7 million, net of $60.0 million in short-term advances and $10.9 million of letters of credit pledged for public entity deposits
  - Federal Funds Lines = $95.0 million
  - Other revolving lines = $6.0 million
  - Bank Term Funding Program = approximately $336.7 million of eligible securities available as collateral

Securities / Assets vs. Liquid Assets[1] / Assets

(end of period)



[1]Liquid Assets, as presented, refers to total cash and cash equivalents

Securities

Key Securities Metrics as of June 30, 2023

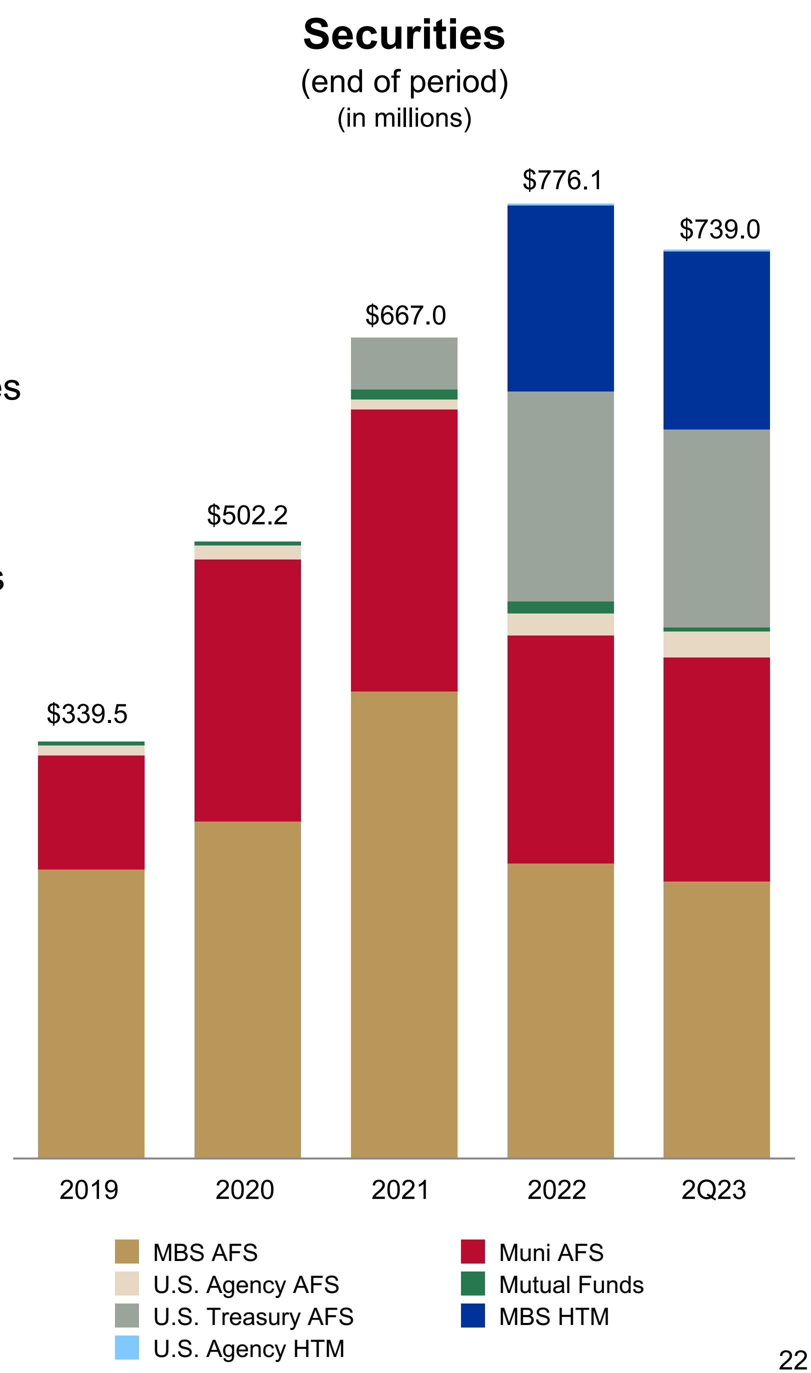
- Securities AFS portfolio at fair value = $588.5 million, net of $73.0 million unrealized loss
- Securities HTM portfolio at amortized cost = $146.6 million
- Unrealized loss on HTM portfolio = $22.1 million
- 2Q23 yield = 1.76%
- Effective duration = 5.0 years
- Estimated cash flows from securities, assuming consistent interest rates
  - $100.0 million principal repayments from July to December 2023
  - $140.0 million principal repayments in 2024
- Securities AFS and HTM pledged as collateral for public entity deposits = $201.5 million
- Available as collateral for Bank Term Funding Program = $336.7 million
- No private label CMBS
- No corporate equity securities
- No investment in subordinated debentures of other financial institutions

Securities AFS Activity 2Q23

- Purchased = $20.0 million of short-term U.S. Treasury Bills
- No sales

Equity Securities as of June 30, 2023

- CRA mutual fund consisted primarily of bonds = $3.9 million

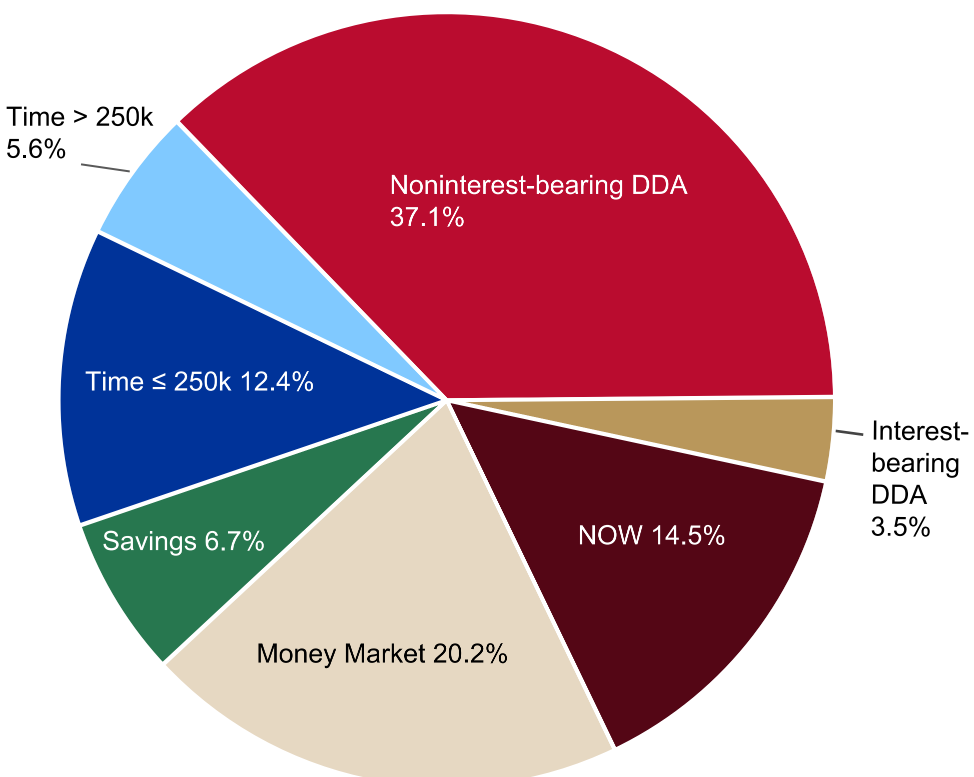


Deposits

- Deposits were $2.66 billion for 2Q23, a decrease of $67.2 million, or 2.5%, compared to 1Q23, due to the changing interest rate environment impacting customer deposit movement and activity, combined with normal tax payments
- Noninterest-bearing deposits to deposits ratio = 37.14%
- Loans HFI to deposits ratio = 73.10%
- Cost of deposits = 1.03%
- No internet-sourced or brokered deposits

Deposit Mix

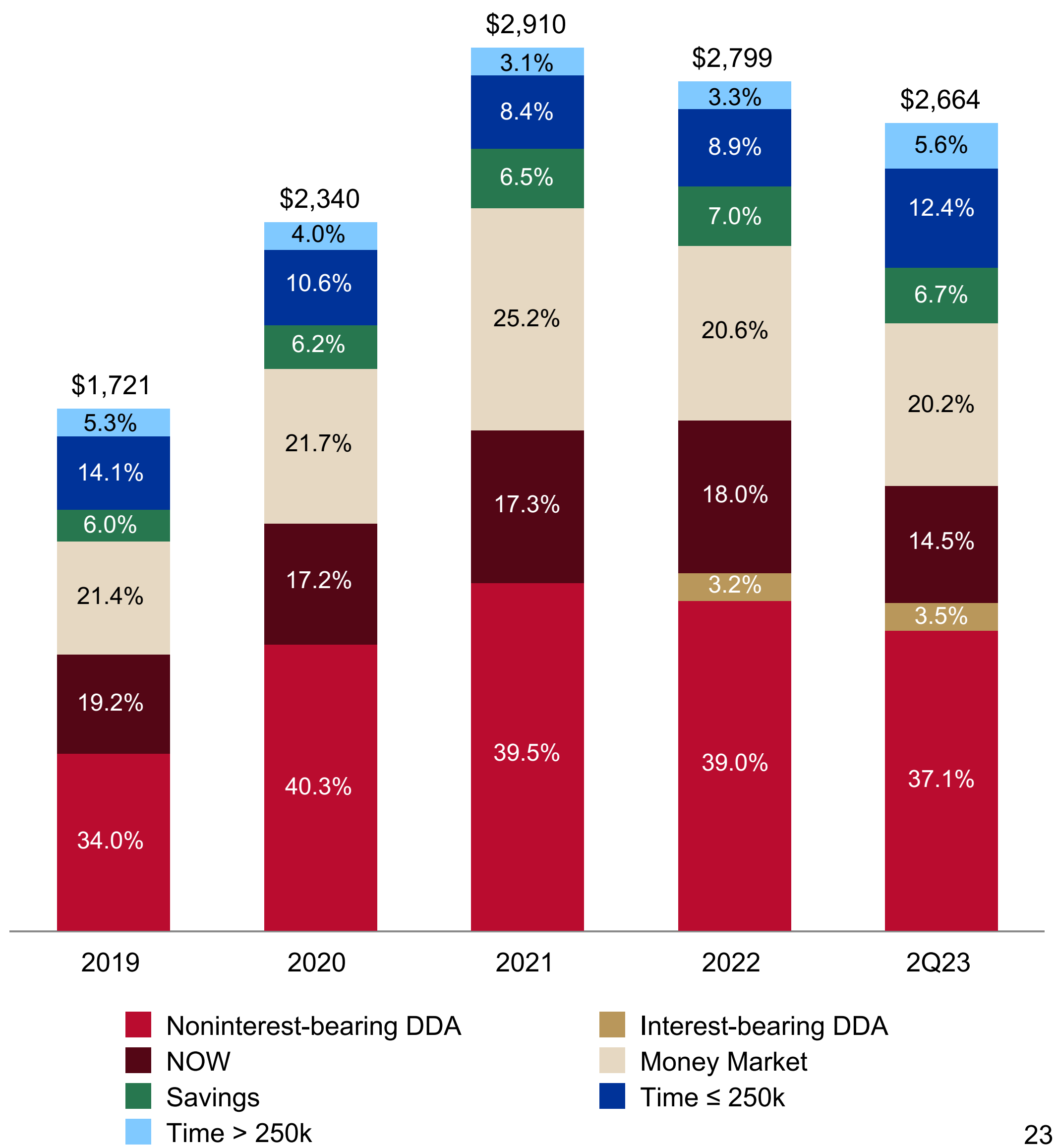
As of June 30, 2023



Deposits

(end of period)

(in millions)



Deposit Characteristics

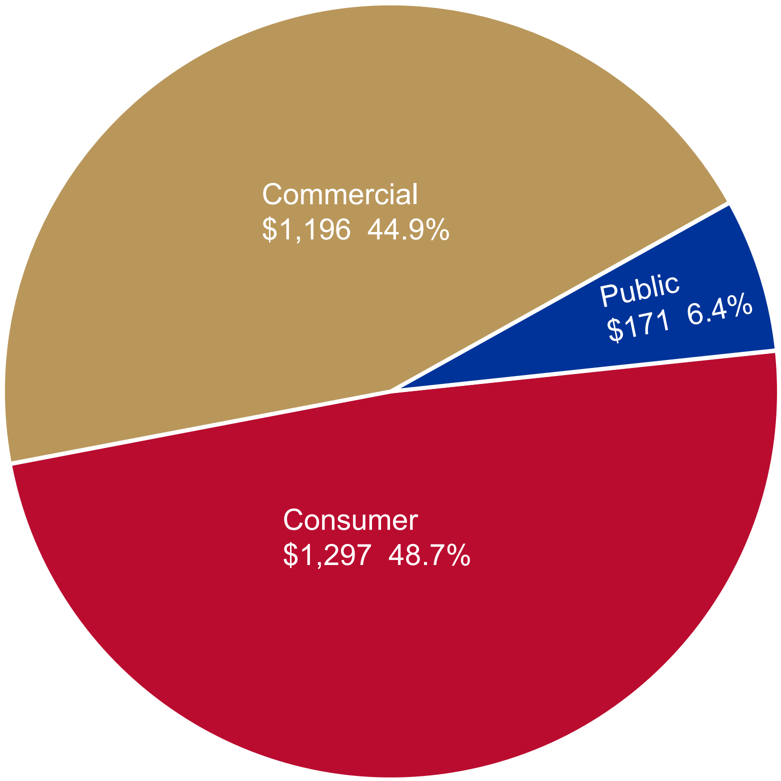
RED RIVER BANCSHARES, INC.

- Granular, diversified deposit portfolio and customer base throughout Louisiana
  - Average deposit account size = $27,000
- Public entity deposits
  - Relationship-based Louisiana public entities
  - Public entity deposits = $171.2 million, 6.4% of deposits
- IntraFi Network ICS Reciprocal Deposit Program
  - Offer ICS products to commercial customers for 100% FDIC insurance
  - ICS Outgoing sweep = $96.0 million
  - ICS Reciprocal funds received (Interest-bearing DDA) = $94.1 million with an interest rate of 4.0% as of June 30, 2023
    - 3.5% of deposits
- Estimated Uninsured Deposits
  - Estimated uninsured deposits[1] = $805.0 million, 30.2% of deposits
  - Estimated uninsured deposits, excluding collateralized public funds[2] = $672.6 million, 25.2% of deposits
  - Cash and cash equivalents combined with available borrowing capacity represent 185.4% of estimated uninsured deposits and 221.9% of estimated uninsured deposits, excluding collateralized public funds

Deposits by Customer Type

As of June 30, 2023

(dollars in millions)



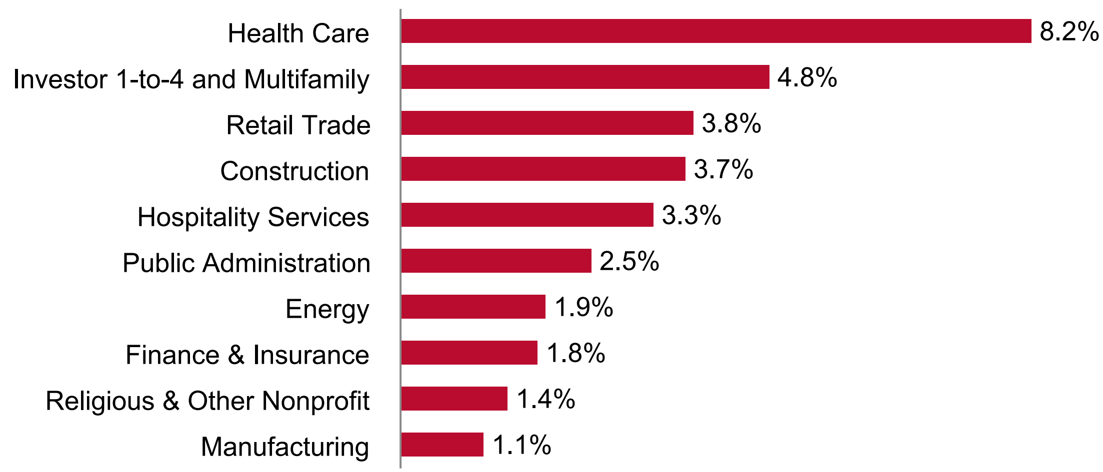
[1]Calculated based on the same methodologies and assumptions used for regulatory reporting purposes
[2]Public entity deposits above the FDIC insurance limit are fully collateralized

Loan Portfolio Overview

- Loans HFI = $1.95 billion
- Broad diversification by industry
- Highest industry concentration = Health Care at 8.2%
- Average loan size excluding credit cards = $237,000

Largest Industry Concentrations

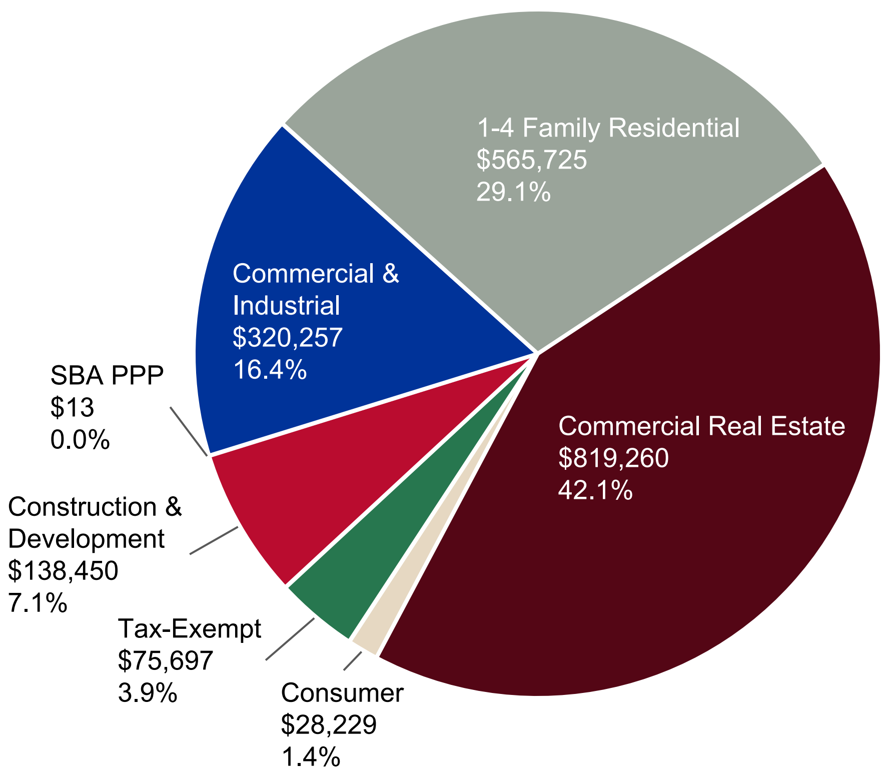
As of June 30, 2023



Total Loans HFI % Mix and Average Loan Size

As of June 30, 2023

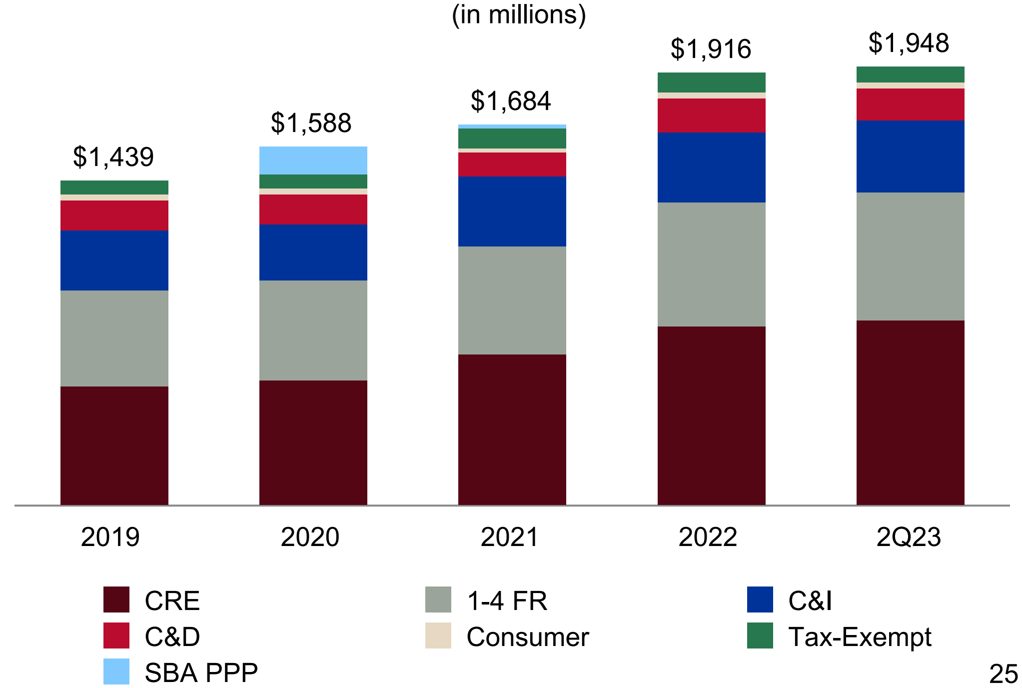
(dollars in thousands)



Total Loans HFI

(end of period)

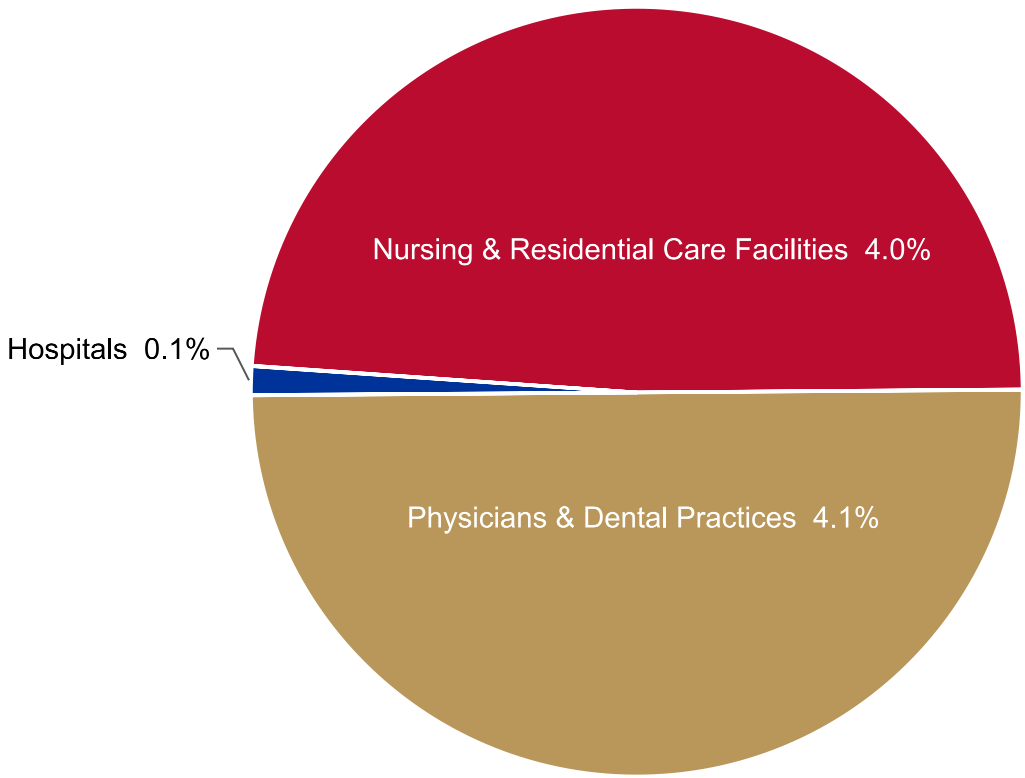
(in millions)



Health Care Loans

- Largest industry concentration
- Health Care loans = $159.6 million, or 8.2%, of loans HFI
- Average loan size = $338,000
- No shared national credits, real estate investment trusts, or assisted living facilities
- Skilled nursing care facilities operate under a certificate of need system in Louisiana
- Nursing facilities are managed by Louisiana-based owner operators

Health Care Loans by Subtype
% of Loans HFI
As of June 30, 2023



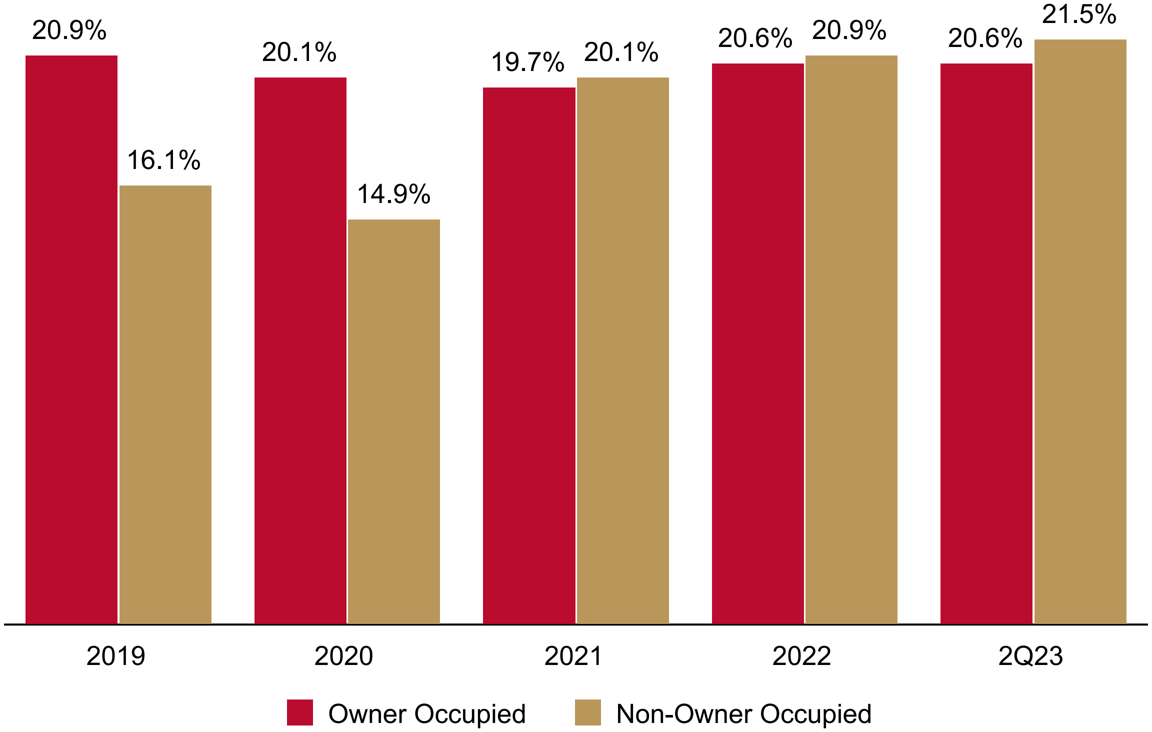
Commercial Real Estate Loans

RED RIVER BANCSHARES, INC.

- CRE = $819.3 million, or 42.1% of loans HFI
  - Investor-owned office properties = $56.3 million, or 6.9% of CRE
- C&D = $138.5 million, or 7.1% of loans HFI
- Low levels of CRE relative to state, regional, and national peers
- CRE concentration ratios as a % of risk-based capital are well below bank regulatory guidelines
  - CRE Ratio = 153.6%
  - C&D Ratio = 38.1%
- CRE criticized loans = $7.8 million, or 1.0% of total CRE loans and 0.4% of loans HFI
- CRE NPLs = $717,000, or 0.09% of total CRE loans and 0.04% of loans HFI

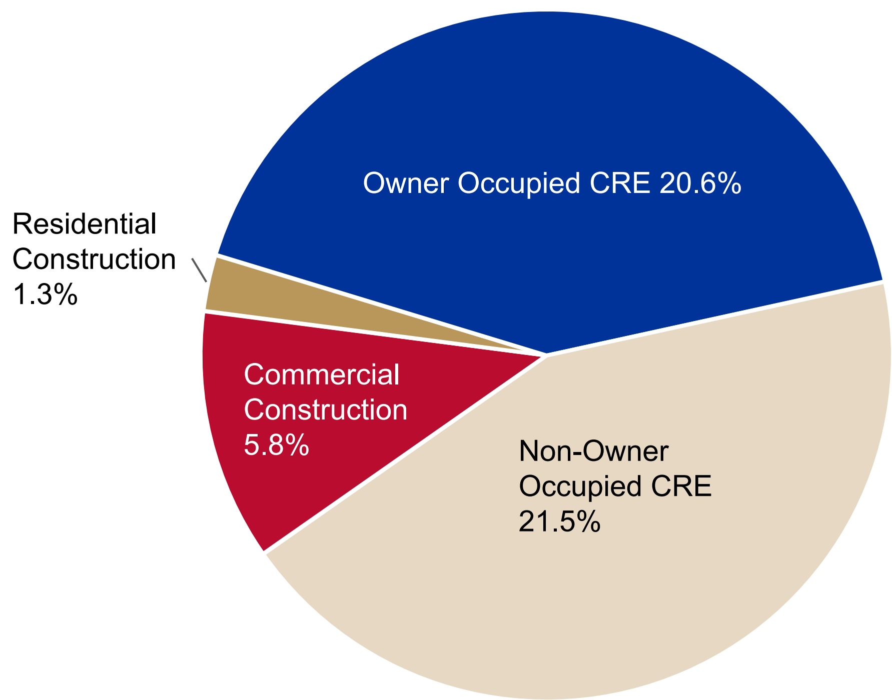
CRE / Loans HFI

As of June 30, 2023



CRE and C&D Categories / Loans HFI

As of June 30, 2023



CECL Update

Adopted CECL methodology as of January 1, 2023

1Q23 Impact

- $278,000 increase to ACL
- Established a $442,000 reserve for unfunded commitments
- Combined 3.5% increase to December 31, 2022 allowance for loan losses
- One-time $569,000, net of tax, decrease to stockholders' equity
- No provision expense recorded in 1Q23

2Q23 Impact

- Provision expense in 2Q23 = $300,000

Methodologies

- Cohort Loss Rate methodology (static pool analysis) used for loan segments > $50.0 million
  - Tracks cohort over their remaining lives to determine their loss behavior
- Remaining Life Loss Rate methodology used for loan segments < $50.0 million
  - The calculated loss rate is applied to the loan segment periodically, based on the remaining life expectancy of the segment
- Loan portfolio is segmented by regulatory call report code
- For loans that do not share general risk characters with segments, we estimate specific reserves on an individual basis

Loans by Market

- Expanding operations in Southwest, Acadiana, Northshore, and Capital Markets
- Opened an LDPO and a full-service banking center in the New Orleans Market

Opportunities and Challenges to Future Loans

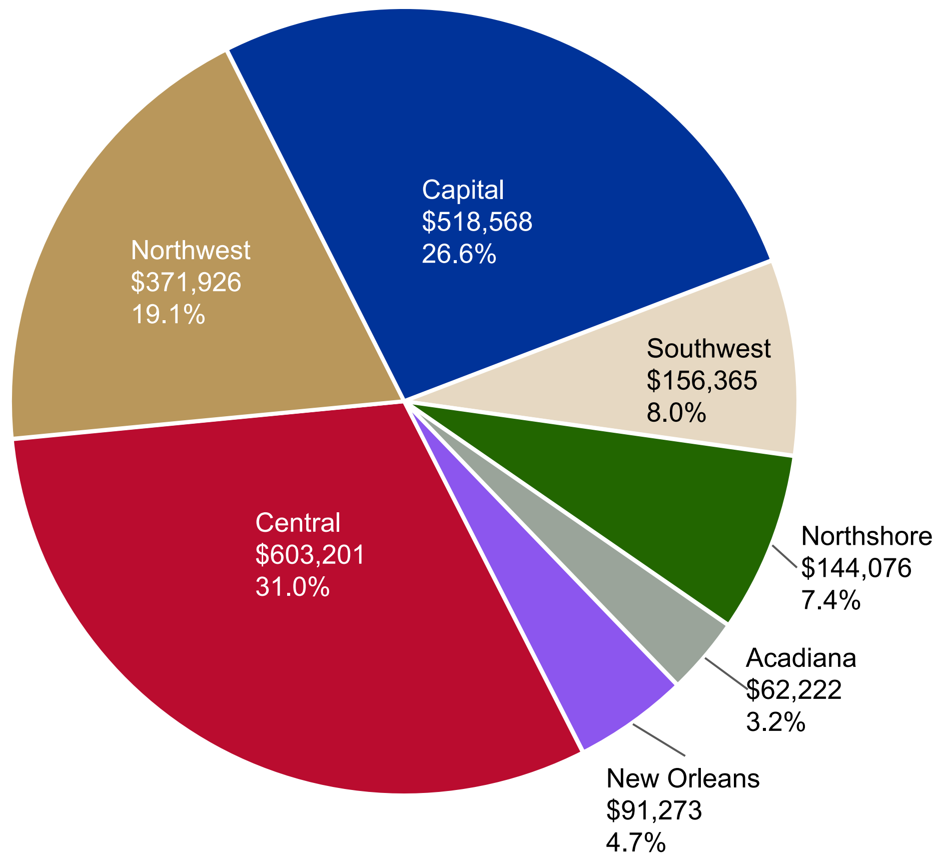
Opportunities

- Expansion in larger Louisiana markets
- Competitor disruption
- New lender capacity

Challenges

- Higher rates impacting future borrowing activity
- Economic uncertainty and inflation
- Slowing loan demand
- Robust competition for new loans
- Tight labor market hampering some business expansion

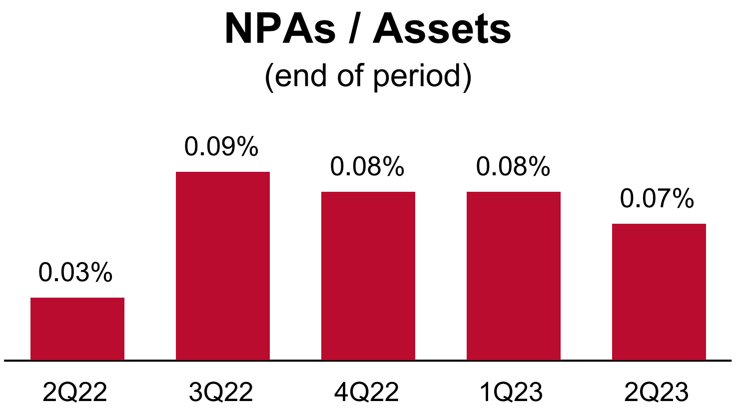
Loans HFI
Originated by Geographic Market
As of June 30, 2023
(dollars in thousands)



Asset Quality

RED RIVER BANCSHARES, INC.

- NPAs decreased slightly to $2.0 million
  - NPAs to Assets = 0.07%
- Provision expense totaled $300,000 in 2Q23
- ACL to loans HFI = 1.08%
- Net charge-offs to average loans since Red River Bank's opening in 1999 = 0.06%



Asset Quality Metrics

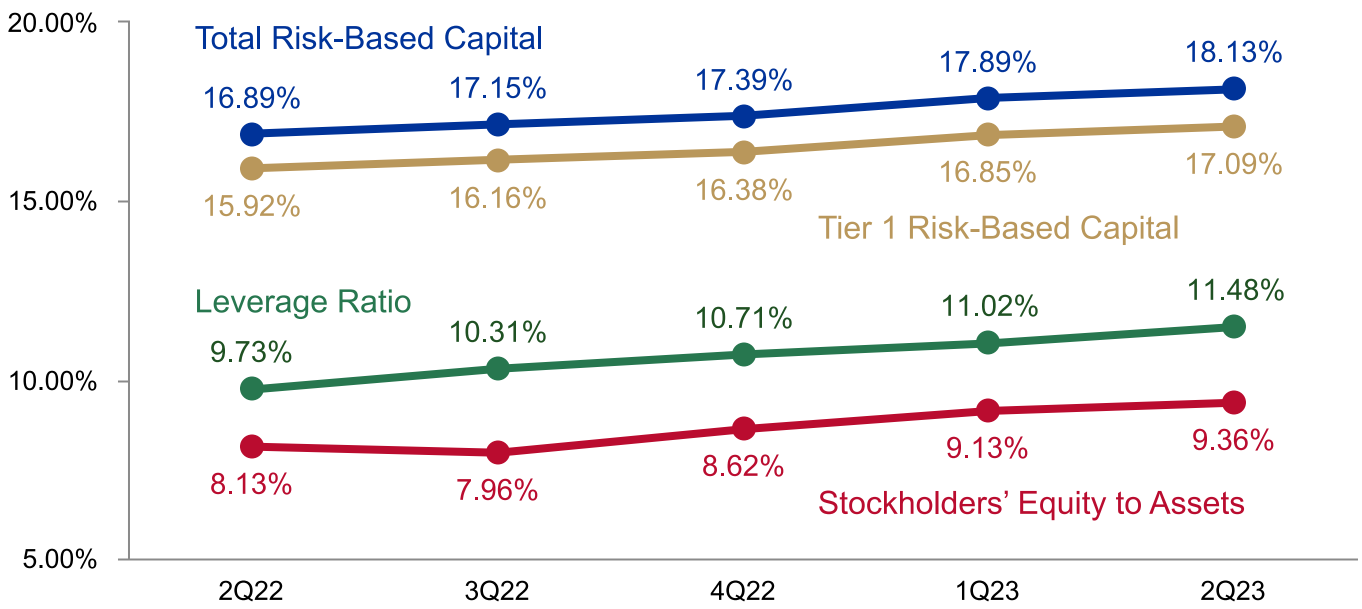
As of and for the quarter ended

(dollars in thousands)	6/30/22	9/30/22	12/31/22	3/31/23	6/30/23
NPLs	$ 311	$ 2,715	$ 2,366	$ 2,361	$ 1,958
NPLs to Loans HFI	0.02%	0.14%	0.12%	0.12%	0.10%
NPAs	$ 971	$ 2,715	$ 2,366	$ 2,383	$ 1,980
NPAs to Assets	0.03%	0.09%	0.08%	0.08%	0.07%
Criticized Loans	$ 27,142	$ 25,814	$ 22,776	$ 21,944	$ 20,711
CLs to Loans HFI	1.48%	1.37%	1.19%	1.14%	1.06%
Provision Expense	$ 250	$ 600	$ 750	$ —	$ 300
ACL to Loans HFI	1.05%	1.06%	1.08%	1.09%	1.08%
Net Charge-offs to Average Loans	0.01%	0.00%	0.00%	0.00%	0.00%

Capital

- Well capitalized position
- Includes $69.7 million of net unrealized losses on securities AFS and HTM, 24.6% of capital as of June 30, 2023
- Stock repurchase programs
  - Repurchase Program renewed February 4, 2022 for $5.0 million and expired December 31, 2022
    - 2022 – Repurchased 4,465 shares of common stock for $218,000
  - Repurchase Program renewed for 2023 for $5.0 million and will expire December 31, 2023
    - 1H23 – Repurchased 18,689 shares of common stock for $947,000
- Quarterly dividend consistent at $0.08 per share in 2Q23
- In 3Q22, filed shelf registration statement for the offer and sale of up to $100 million of various securities
- Capital priorities
  - Remain well capitalized
  - Support organic growth
  - Dividends
  - Stock buybacks
  - Acquisitions

Capital Ratios
(end of period)

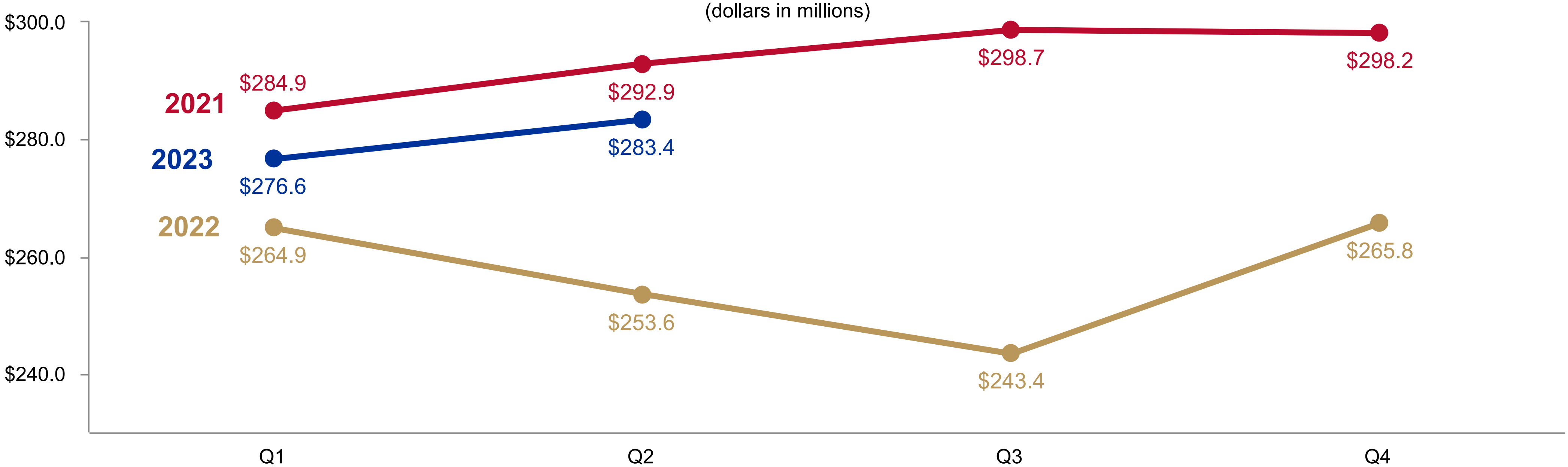


Stockholders' Equity Trends

RED RIVER BANCSHARES, INC.

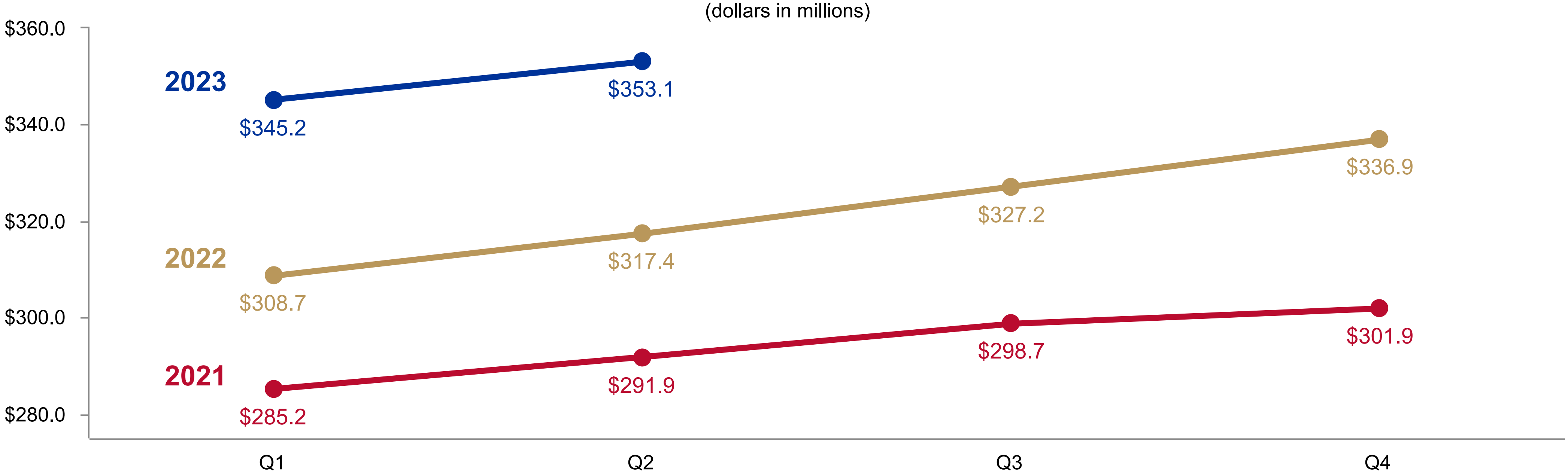
Total Stockholders' Equity

(dollars in millions)



Realized Stockholders' Equity[1]

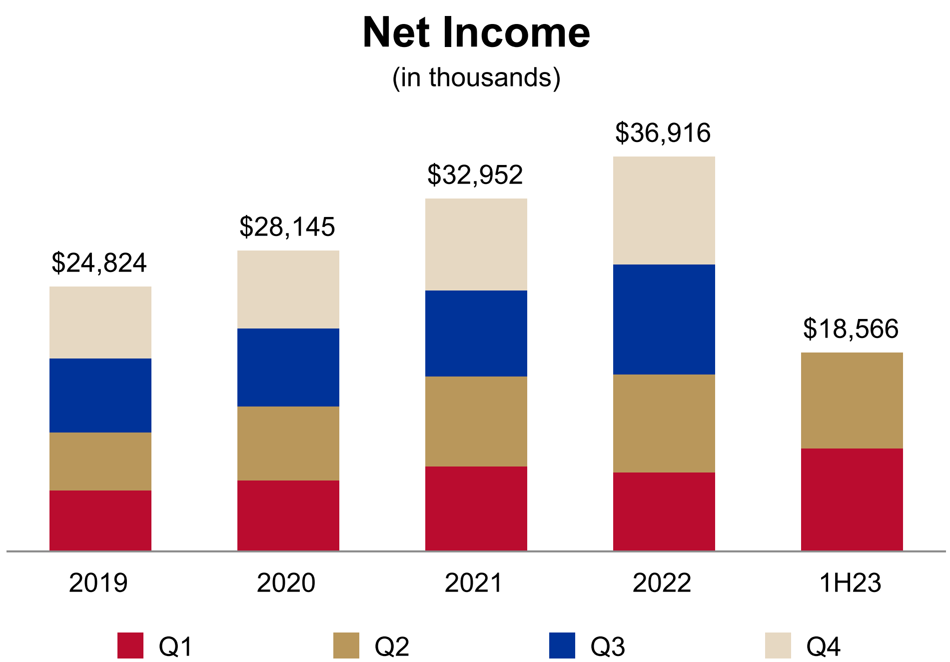
(dollars in millions)

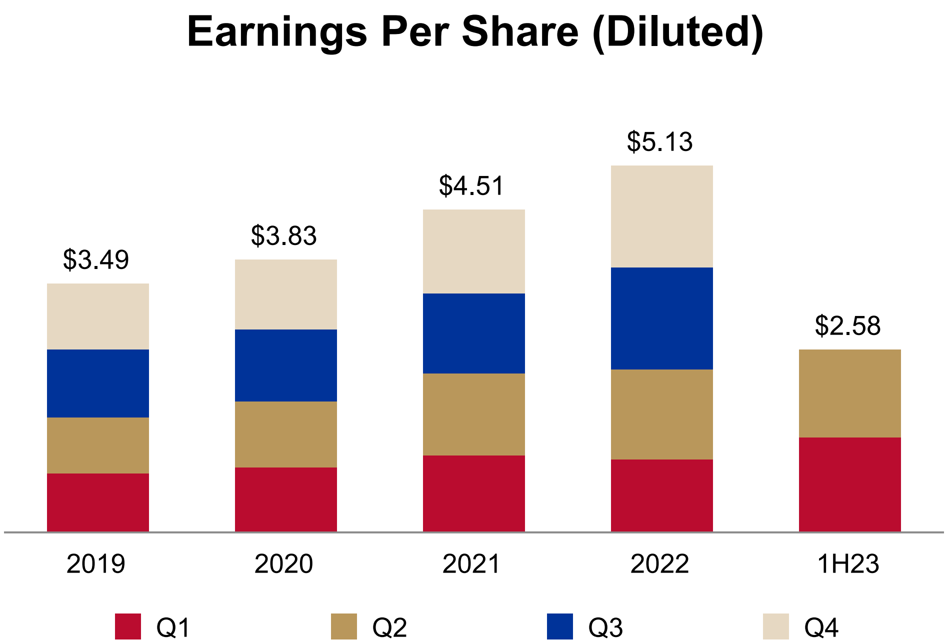


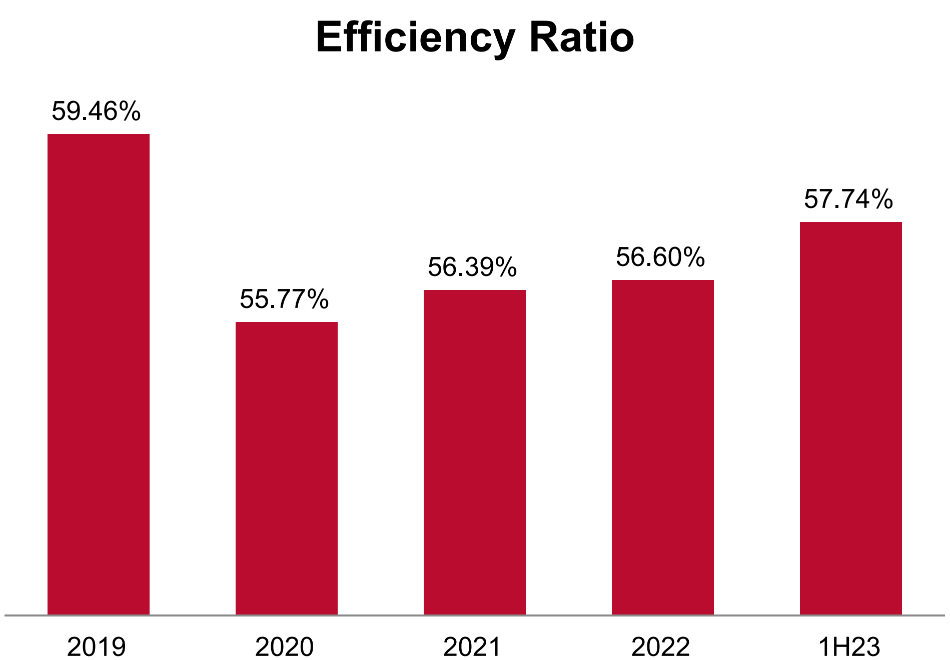
[1]Non-GAAP measure. See "Forward-Looking Statements and Non-GAAP Information" on slide 2 and "Non-GAAP Reconciliation" slides in the Appendix for additional information.

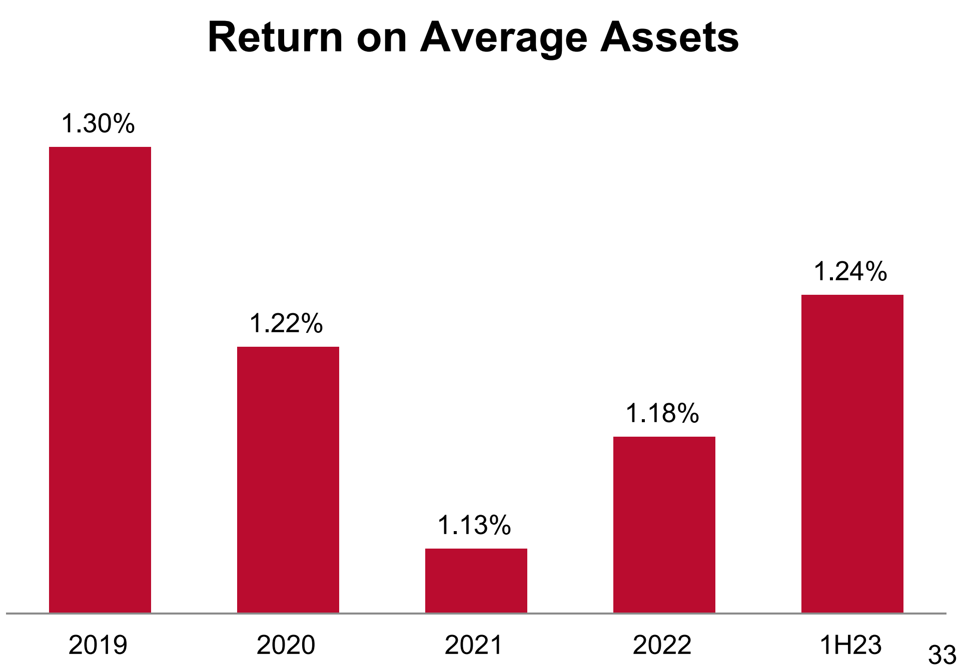
Profitability Trends

RED RIVER BANCSHARES, INC.



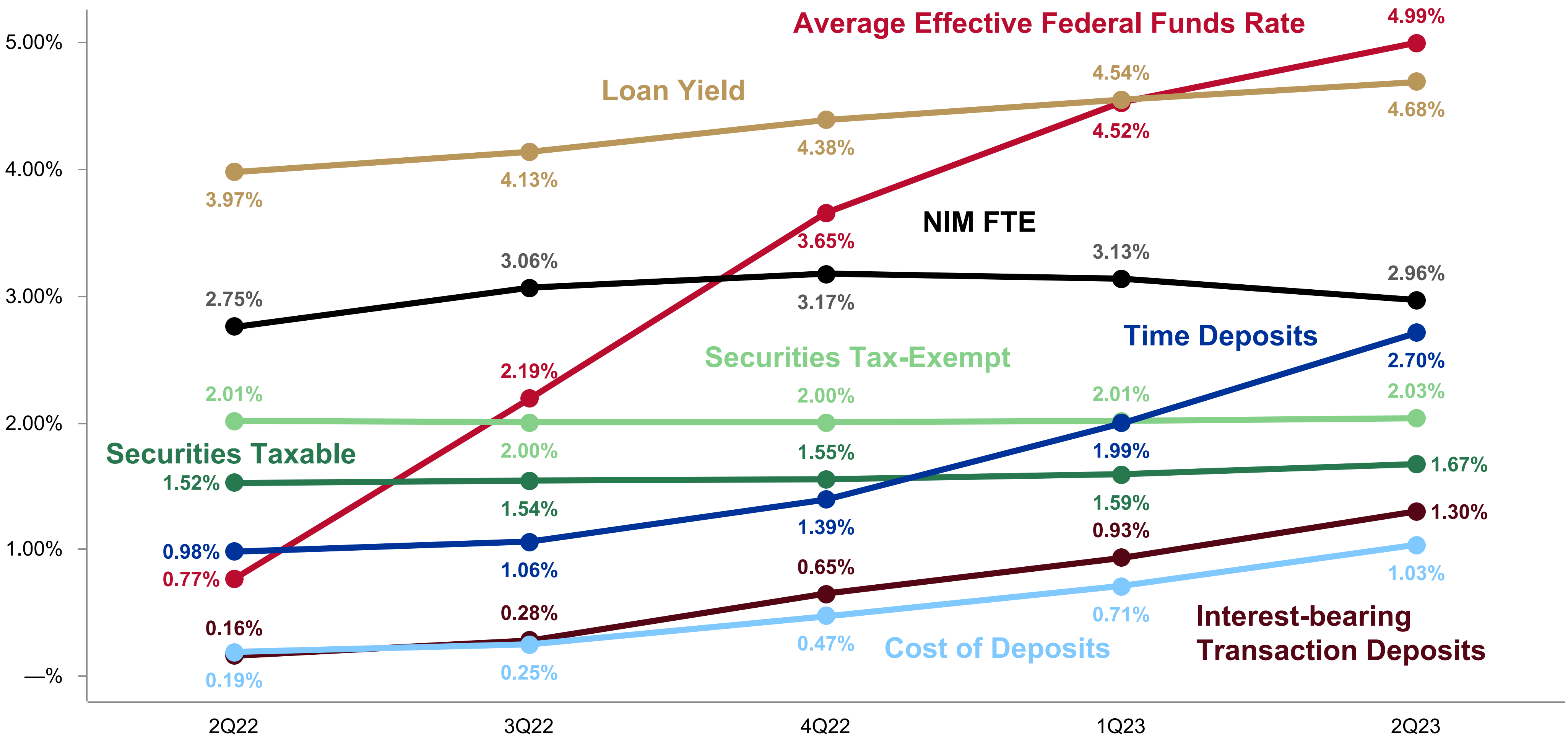






Net Interest Margin FTE (2Q23 vs. 1Q23)

- NIM FTE decreased 17 bps to 2.96% for 2Q23 due to higher deposit rates resulting from deposit rate pressures
- Increased selected deposit rates to retain and attract customers
- Customers moved deposits from lower yielding accounts to higher yielding accounts
- Cost of deposits increased 32 bps in 2Q23 to 1.03%
- Rates on new, renewed, and floating rate loans were 7.09% in 2Q23 compared to 6.68% in 1Q23



Net Interest Margin Update

	Average Yield / Rate		Basis Points	Beta
	2Q23	1Q23	Increase (Decrease)	2Q23
Loans	4.68%	4.54%	14	30%
Total interest-earning assets	3.86%	3.73%	13	28%
Interest-bearing transaction deposits	1.30%	0.93%	37	78%
Time deposits	2.70%	1.99%	71	150%
Cost of deposits	1.03%	0.71%	32	68%

NIM Opportunity

- Deploy investment cash flows into higher yielding assets
- Growth opportunity in new and legacy markets

NIM Challenges

- Uncertainty regarding future interest rate environment
  - The expectation is FOMC will keep the federal funds rate consistent through 4Q23 after 25 bp increase in July
- Deposit rate pressures
- Deposit mix shift to higher cost products
- Uncertainty regarding customer deposit activity
- Competition for new loans

Expectations

- Reinvest cash flow from securities into higher yielding assets
- Deposit rate pressure continues
- Consistent net interest income and net interest margin through 2H23

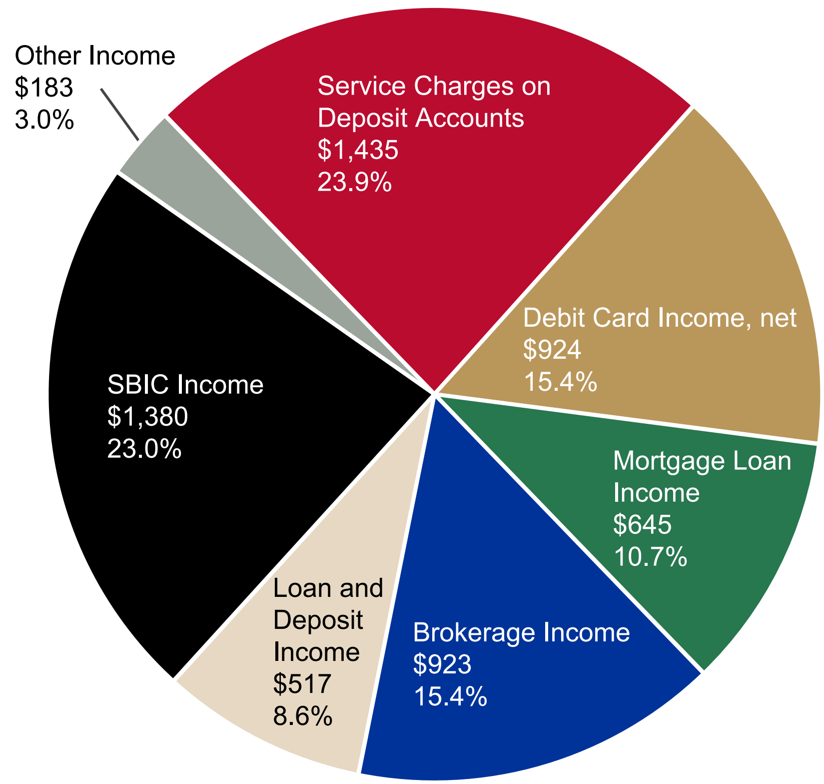
Noninterest Income (2Q23 vs. 1Q23)

- Noninterest income increased $1.7 million to $6.0 million for 2Q23
- SBIC income increased $1.2 million to $1.4 million for 2Q23 due to the sale of an investment by the SBIC
  - We expect this income to be lower in future quarters
- Mortgage loan income increased $370,000 to $645,000 for 2Q23, a result of improved purchase activity as consumers adjusted to the higher interest rate environment
- Brokerage income increased $116,000 to $923,000 for 2Q23 due to investing activities of new and existing clients
  - Assets under management = $997.3 million
  - Our wealth management program ranked in the top 6% of all financial institutions with LPL Financial for 2Q23[1]

Noninterest Income

For the quarter ended June 30, 2023

(dollars in thousands)



[1]Source: Based on reports from LPL Financial's Resource Center for LPL Financial Institutions

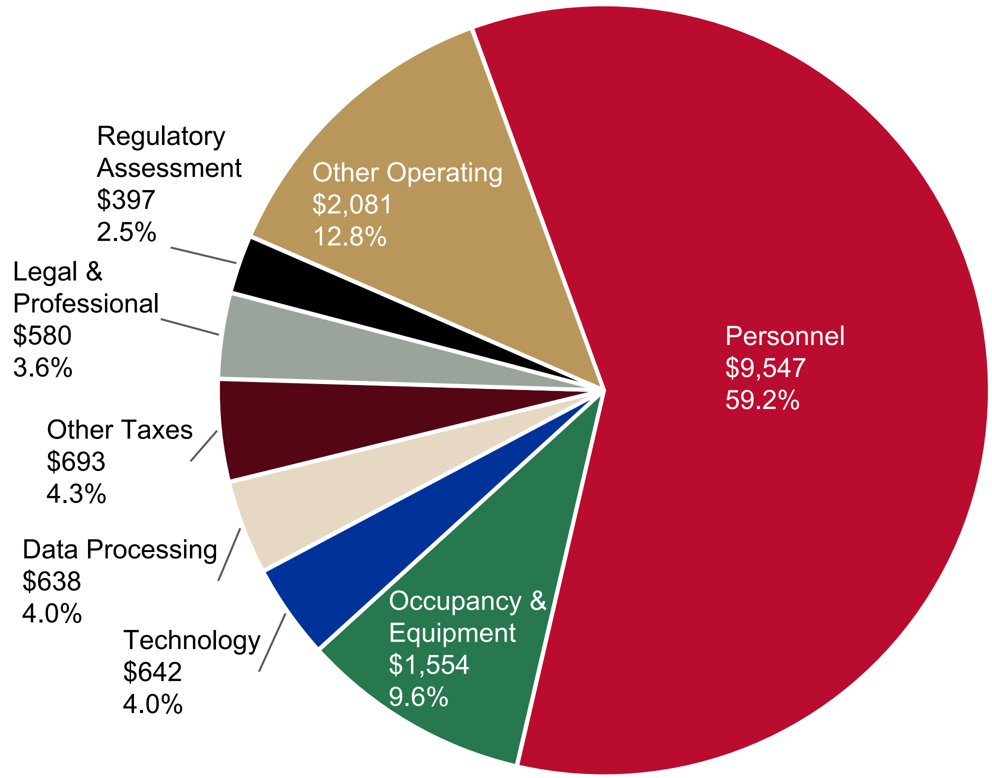
Operating Expenses (2Q23 vs. 1Q23)

- Operating expenses increased $644,000 to $16.1 million for 2Q23
- Personnel expenses increased $547,000 to $9.5 million for 2Q23 due to annual merit raises, higher personnel health insurance expenses, and higher commission compensation
- Data processing expenses increased $238,000 to $638,000 for 2Q23
  - In 1Q23, we received a $252,000 periodic refund from our data processing center
- Occupancy and equipment expenses decreased $163,000 to $1.6 million for 2Q23, primarily attributable to the decrease in nonrecurring expenses in 2Q23 compared to 1Q23
- Technology expenses decreased $106,000 to $642,000 for 2Q23 due to the renegotiation of a technology vendor contract, which resulted in lower expenses effective in 2Q23

Operating Expenses

For the quarter ended June 30, 2023

(dollars in thousands)



Expansion Highlights

Southwest Market – Lake Charles, Louisiana

- 3Q22 – Expanded the Country Club Banking Center with a 3,600 square-foot addition
- 1Q23 – Closed Lake Street and consolidated staff to the Country Club Banking Center

Acadiana Market – Lafayette, Louisiana

- 1Q22 – Remodeled and opened as a full-service banking center on January 26, 2022
- 2Q22 – Closed LDPO and consolidated staff to the Pinhook Banking Center

New Orleans Market – New Orleans, Louisiana

Baronne Street Banking Center

- 2Q22 – Leased an existing banking center location in downtown New Orleans
- 3Q22 – Opened as a full-service banking center on August 1, 2022

Veterans Memorial Boulevard Banking Center

- 1Q22 – Purchased land in Metairie, Louisiana (a New Orleans suburb)
- 3Q23 – Construction projected to start on a new full-service banking center

Central Market – Alexandria, Louisiana

- 4Q22 – Remodeled and opened the new operations center building, a 21,000 square foot building that provides an efficient facility for operations and support departments, as well as improves our business continuity plan

Strategic Outlook

RED RIVER BANCSHARES, INC.

- Continue building a strong, Louisiana-based, super-community bank by leveraging existing infrastructure and creating strong brand loyalty
- Continue disciplined capital management
- Focus on liquidity
- Manage deposit pricing due to intensified rate pressure
- Manage net interest income and net interest margin in an increased interest rate environment
- Monitor asset quality trends and maintain appropriate level of allowance for credit losses
- Disciplined focus on personal, relationship banking and building shareholder value
- Continue *de novo*, organic expansion strategy
- Expand market share in newer South Louisiana markets
- Monitor markets for opportunity for organic growth or key acquisitions
- Continue to build out digital offerings as needed in order to serve our target customer base
- Continue to expand mortgage operations and investments division across markets
- Seek to take advantage of disruption in the marketplace

Summary

Red River Bancshares, Inc.

Well positioned for the future

Well capitalized with 11.48% leverage ratio as of June 30, 2023

Stockholders' equity to assets = 9.36%

Tangible common equity to tangible assets[1] = 9.31%

Granular, diversified deposit portfolio

Diversified loan portfolio with good asset quality

Strong liquidity and borrowing capacity

[1]Non-GAAP measure. See "Forward-Looking Statements and Non-GAAP Information" on slide 2 and "Non-GAAP Reconciliation" slides in the Appendix for additional information.

RED RIVER BANCSHARES, INC.

APPENDIX

Non-GAAP Reconciliation

RED RIVER BANCSHARES, INC.

(dollars in thousands, except per share data)	As of 6/30/23	3/31/23	12/31/22	6/30/22	12/31/21
Tangible common equity					
Total stockholders' equity	$ 283,372	$ 276,640	$ 265,753	$ 253,596	$ 298,150
Adjustments:					
Intangible assets	(1,546)	(1,546)	(1,546)	(1,546)	(1,546)
Total tangible common equity (non-GAAP)	$ 281,826	$ 275,094	$ 264,207	$ 252,050	$ 296,604
Realized common equity					
Total stockholders' equity	$ 283,372	$ 276,640	$ 265,753	$ 253,596	$ 298,150
Adjustments:					
Accumulated other comprehensive (income) loss	69,693	68,541	71,166	63,804	3,773
Total realized common equity (non-GAAP)	$ 353,065	$ 345,181	$ 336,919	$ 317,400	$ 301,923
Common shares outstanding	7,175,056	7,177,650	7,183,915	7,176,365	7,180,155
Book value per share	$ 39.49	$ 38.54	$ 36.99	$ 35.34	$ 41.52
Tangible book value per share (non-GAAP)	$ 39.28	$ 38.33	$ 36.78	$ 35.12	$ 41.31
Realized book value per share (non-GAAP)	$ 49.21	$ 48.09	$ 46.90	$ 44.23	$ 42.05
Tangible assets					
Total assets	$ 3,027,194	$ 3,030,582	$ 3,082,686	$ 3,121,113	$ 3,224,710
Adjustments:					
Intangible assets	(1,546)	(1,546)	(1,546)	(1,546)	(1,546)
Total tangible assets (non-GAAP)	$ 3,025,648	$ 3,029,036	$ 3,081,140	$ 3,119,567	$ 3,223,164
Stockholders' equity to assets	9.36%	9.13%	8.62%	8.13%	9.25%
Tangible common equity to tangible assets (non-GAAP)	9.31%	9.08%	8.57%	8.08%	9.20%

Non-GAAP Reconciliation (continued)

(dollars in thousands, except per share data)	As of 9/30/22	As of 6/30/22	As of 3/31/22
Realized common equity			
Total stockholders' equity	$ 243,413	$ 253,596	$ 264,874
Adjustments:			
Accumulated other comprehensive (income) loss	83,744	63,804	43,819
Total realized common equity (non-GAAP)	$ 327,157	$ 317,400	$ 308,693

(dollars in thousands, except per share data)	As of 9/30/21	As of 6/30/21	As of 3/31/21
Realized common equity			
Total stockholders' equity	$ 298,688	$ 292,924	$ 284,911
Adjustments:			
Accumulated other comprehensive (income) loss	61	(1,058)	331
Total realized common equity (non-GAAP)	$ 298,749	$ 291,866	$ 285,242

(dollars in thousands, except per share data)	As of 12/31/22	As of 12/31/21
Non-PPP loans HFI		
Loans HFI	$ 1,916,267	$ 1,683,832
Adjustments:		
PPP loans, net	(14)	(17,550)
Non-PPP loans HFI (non-GAAP)	$ 1,916,253	$ 1,666,282