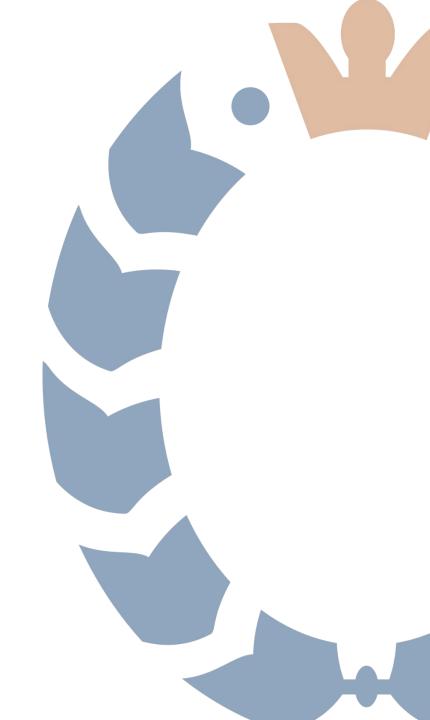


Investor Presentation

Fourth Quarter 2023 ——



"Safe Harbor" Statement

Under the Private Securities Litigation Reform Act of 1995

"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995: This presentation contains, and the remarks by Prosperity's management on the conference call may contain, forward-looking statements within the meaning of the federal securities laws, including Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. From time to time, oral or written forward-looking statements may also be included in other information released to the public. Such forward-looking statements are typically, but not exclusively, identified by the use in the statements of words or phrases such as "aim," "anticipate," "believe," "estimate," "expect," "goal," "guidance," "intend," "is anticipated," "is expected," "is intended," "objective," "plan," "projected," "projection," "will affect," "will be," "will continue," "will decrease," "will grow," "will impact," "will increase," "will incur," "will reduce," "will remain," "will result," "would be," variations of such words or phrases (including where the word "could," "may," or "would" is used rather than the word "will" in a phrase) and similar words and phrases indicating that the statement addresses some future result, occurrence, plan or objective. Forward-looking statements include all statements other than statements of historical fact, including forecasts or trends, and are based on current expectations, assumptions, estimates and projections about Prosperity Bancshares and its subsidiaries. These forward-looking statements may include information about Prosperity's possible or assumed future economic performance or future results of operations, including future revenues, income, expenses, provision for loan losses, provision for taxes, effective tax rate, earnings per share and cash flows and Prosperity's future capital expenditures and dividends, future financial condition and changes therein, including changes in Prosperity's loan portfolio and allowance for loan losses, changes in deposits, borrowings and the investment securities portfolio, future capital structure or changes therein, as well as the plans and objectives of management for Prosperity's future operations, future or proposed acquisitions, including the pending transaction with Lone Star, the future or expected effect of acquisitions on Prosperity's operations, results of operations, financial condition, and future economic performance, statements about the anticipated benefits of each of the proposed transactions, and statements about the assumptions underlying any such statement. These forward-looking statements are not guarantees of future performance and are based on expectations and assumptions Prosperity currently believes to be valid. Because forward-looking statements relate to future results and occurrences, many of which are outside of Prosperity's control, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. These risks and uncertainties include, but are not limited to whether Prosperity can: successfully identify acquisition targets and integrate the businesses of acquired companies and banks, including Lone Star; continue to sustain its current internal growth rate or total growth rate; provide products and services that appeal to its customers; continue to have access to debt and equity capital markets; and achieve its sales objectives. Other risks include, but are not limited to: the possibility that credit quality could deteriorate; actions of competitors; changes in laws and regulations (including changes in governmental interpretations of regulations and changes in accounting standards); the possibility that the anticipated benefits of an acquisition transaction, including the pending transaction with Lone Star, are not realized when expected or at all, including as a result of the impact of, or problems arising from, the integration of two companies or as a result of the strength of the economy and competitive factors generally; a deterioration or downgrade in the credit quality and credit agency ratings of the securities in Prosperity's securities portfolio; customer and consumer demand, including customer and consumer response to marketing; effectiveness of spending, investments or programs; fluctuations in the cost and availability of supply chain resources; economic conditions, including currency rate, interest rate and commodity price fluctuations; and the effect, impact, potential duration or other implications of weather an climate-elated events. Prosperity disclaims any obligation to update such factors or to publicly announce the results of any revisions to any of the forward-looking statements included herein to reflect future events or developments. These and various other factors are discussed in Prosperity's Annual Report on Form 10-K for the year ended December 31, 2022, and other reports and statements Prosperity has filed with the Securities and Exchange Commission ("SEC"). Copies of the SEC filings for Prosperity may be downloaded from the Internet at no charge from http://www.prosperitybankusa.com.

Fourth Quarter Highlights

- Net income of \$95.5 million, or \$111.4 million excluding the FDIC special assessment and merger related expenses
- Earnings per share (diluted) of \$1.02, or \$1.19 excluding the FDIC special assessment and merger related expenses
- Assets of \$38.5 billion, total loans of \$21.2 billion, and deposits of \$27.2 billion at December 31, 2023
- Common equity tier 1 ratio of 15.54% and leverage ratio of 10.39% at December 31, 2023
- Net interest margin increased by 3 basis points to 2.75% in the fourth quarter 2023
- Nonperforming assets to average earning assets remain low at 0.21%
- Allowance for credit losses on loans and on off-balance sheet credit exposure of \$368.9 million
- Allowance for credit losses to total loans, excluding Warehouse Purchase Program, of 1.63%
- Declared cash dividend of \$0.56 for the first quarter 2024
- Pending merger with Lone Star State Bancshares, Inc.
- Approved 2024 Stock Repurchase Program covering up to 5% of outstanding common stock



Strong Presence in Texas and Oklahoma

A Texas-based financial holding company with \$38.5 billion in total assets

 Prosperity has been ranked in the Top 10 of Forbes America's Best Banks since the list's inception in 2010, and was ranked #6 in 2023

Ranked #2 in deposit market share in Texas (1)

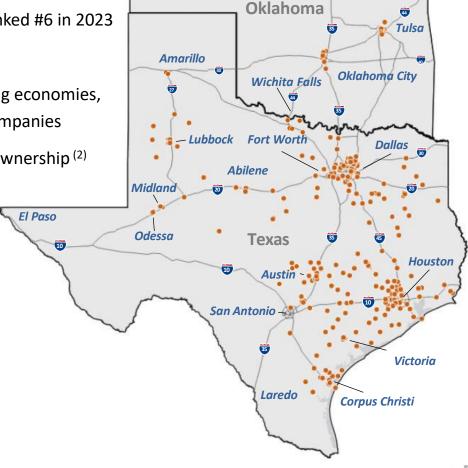
 Texas and Oklahoma continue to benefit from strong economies, and are home to 61 Fortune 500 headquartered companies

Shareholder driven with 4.2% fully diluted insider ownership (2)

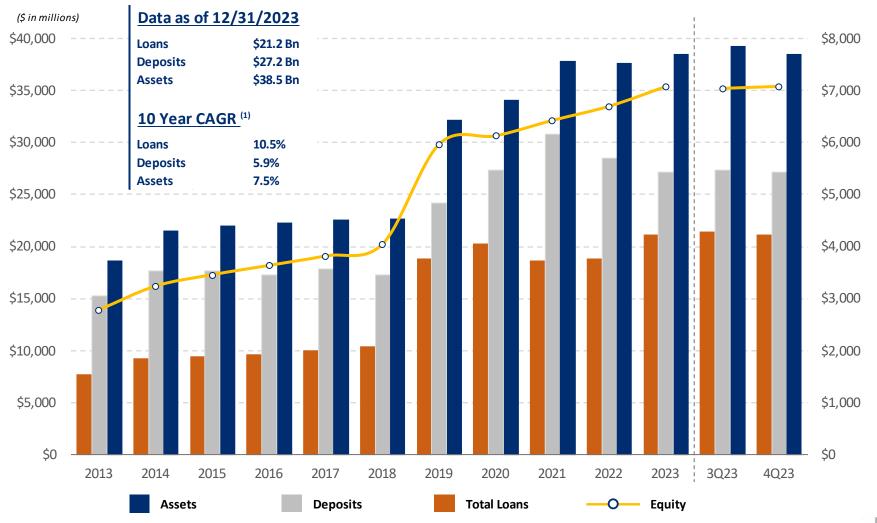
 Successful completion of 44 acquisitions (whole bank, branch and failed bank transactions)

285 Full-Service Locations

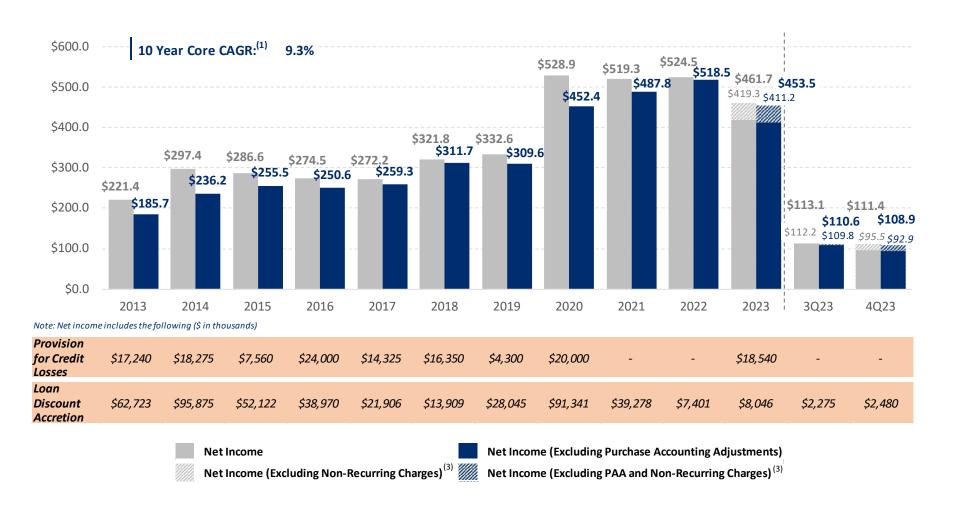
- in Bryan/College Station Area
- 6 in Central Oklahoma Area
- 32 in Central Texas Area
- 62 in Dallas/Fort Worth Area
- 22 in East Texas Area
- 65 in Houston Area
- 30 in South Texas Area
- 8 in Tulsa Area
- 44 in West Texas Area



Balance Sheet Summary



Net Income



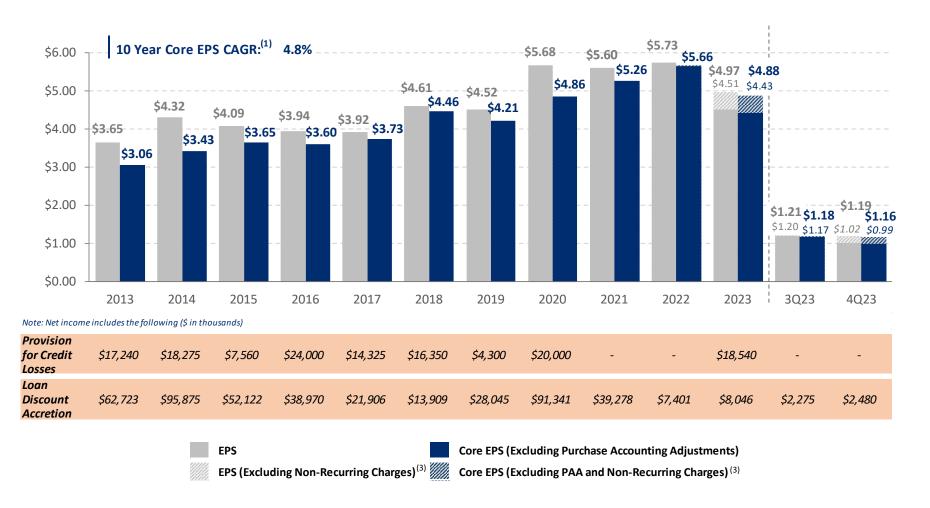


⁽¹⁾ Represents the Compound Annual Growth Rate of net income (excluding purchase accounting adjustments and non-recurring charges) from 12/31/2013 – 12/31/2023

⁽²⁾ Represents the Compound Annual Growth Rate of net income (excluding purchase accounting adjustments and non-recurring charges) from 12/31/2018 – 12/31/2023

Excludes after-tax merger related provision and expenses related to the recently completed First Bancshares of Texas, Inc. acquisition and in Q4 2023 a one-time FDIC special assessment

Earnings Per Share



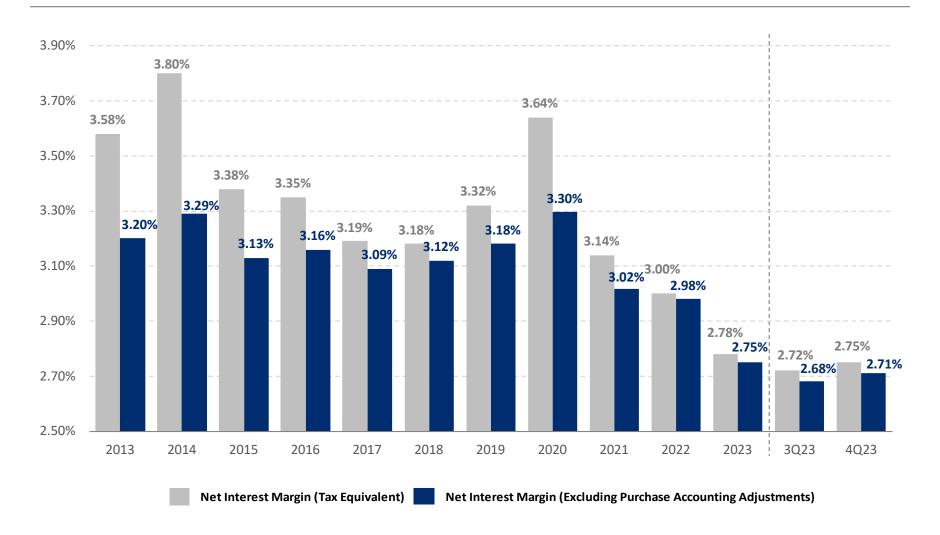
Source: Company Documents

⁽¹⁾ Represents the Compound Annual Growth Rate for EPS (excluding purchase accounting adjustments and non-recurring charges) from 12/31/2013 – 12/31/2023

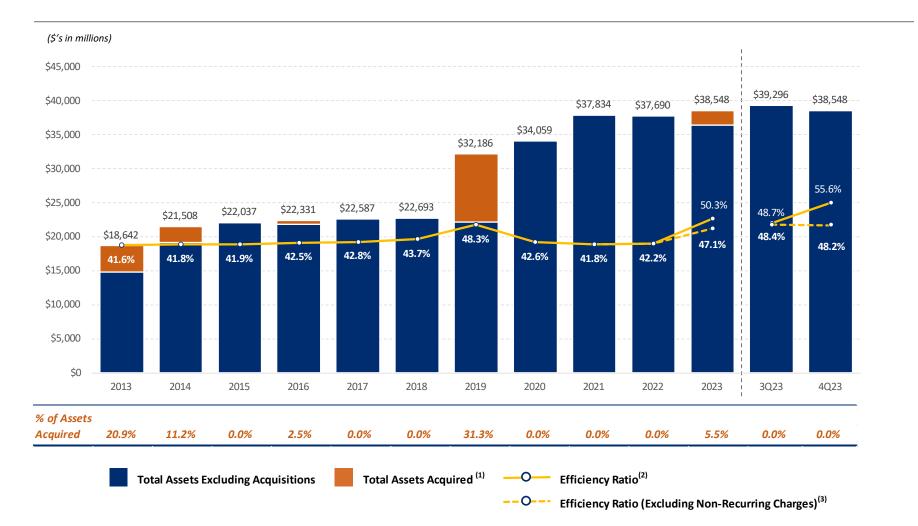
⁽²⁾ Represents the Compound Annual Growth Rate for EPS (excluding purchase accounting adjustments and non-recurring charges) from 12/31/2018 – 12/31/2023

Excludes after-tax merger related provision and expenses related to the recently completed First Bancshares of Texas, Inc. acquisition and in Q4 2023 a one-time FDIC special assessment

Net Interest Margin



Acquisitions & Efficiency Ratio

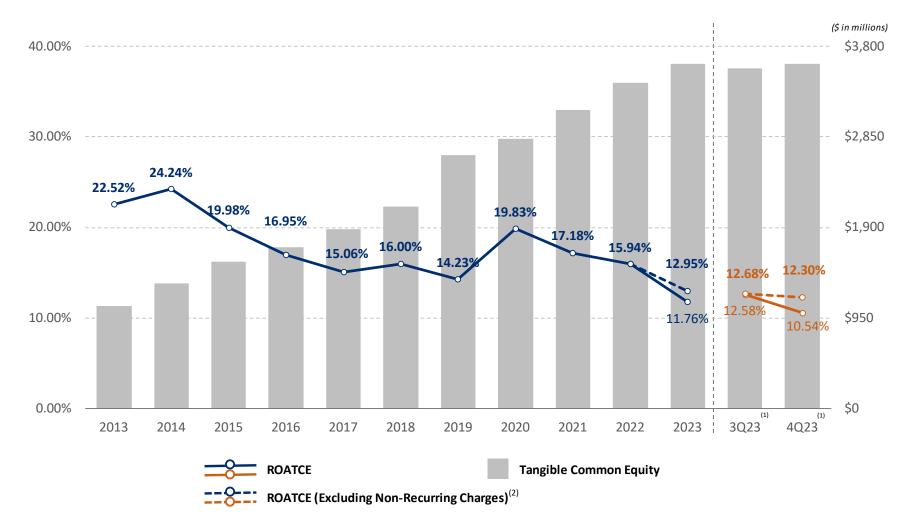


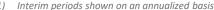
Source: Company Documents

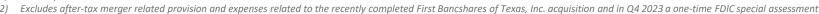
- (1) Representative of target assets at closing
- 2) Calculated by dividing total noninterest expense, excluding credit loss provisions, by net interest income plus noninterest income, excluding net gains and losses on the sale or write down of assets and securities. Additionally, taxes are not part of this calculation.
- Excludes after-tax merger related provision and expenses related to the recently completed First Bancshares of Texas, Inc. acquisition and in Q4 2023 a one-time FDIC special assessment



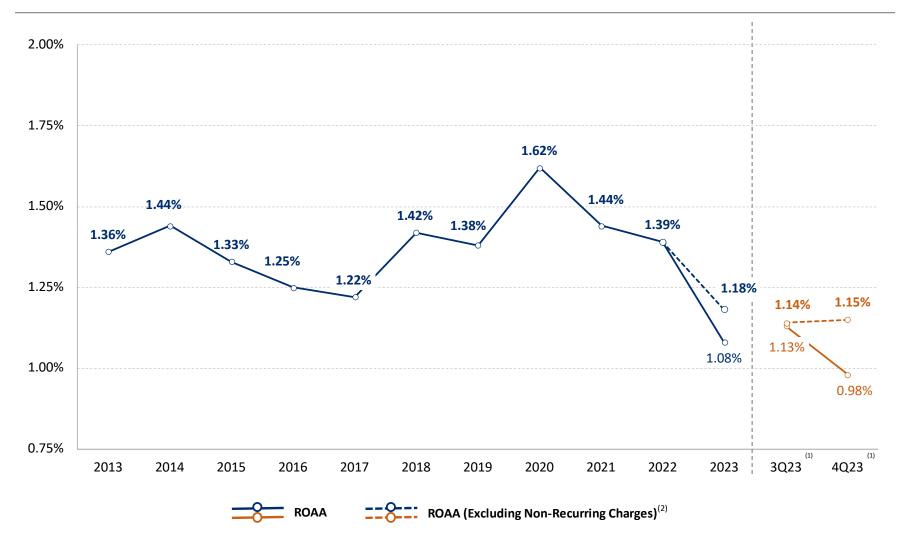
Return on Average Tangible Common Equity







Return on Average Assets

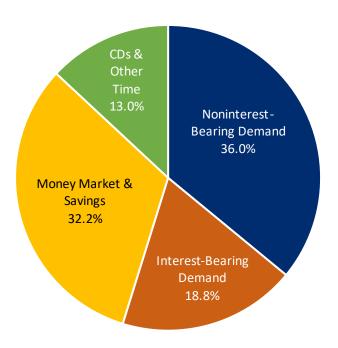




²⁾ Excludes after-tax merger related provision and expenses related to the recently completed First Bancshares of Texas, Inc. acquisition and in Q4 2023 a one-time FDIC special assessment

Deposit Composition

As of December 31, 2023 (\$ in millions)



	Şmm	Cost (%)(1)
Noninterest-Bearing Demand	\$9,777	0.00%
Interest-Bearing Demand	\$5,116	0.56%
Money Market & Savings	\$8,741	2.03%
CDs & Other Time	\$3,546	3.80%

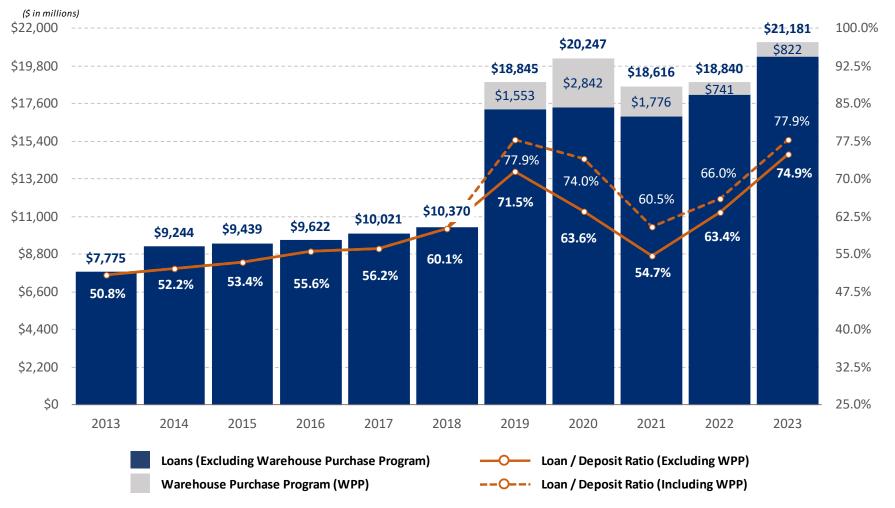
Total Deposits: \$27.2Bn

Total Cost of Deposits: 1.25% (1)

Cost of Interest-Bearing Deposits: 1.97% (1)



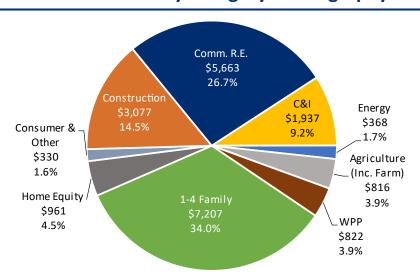
Loan Growth



Loan Portfolio Overview

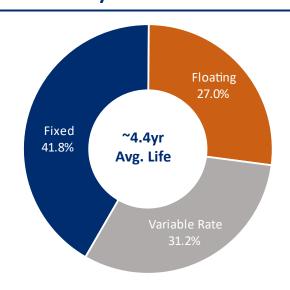
As of December 31, 2023 (\$ in millions)

Loan Portfolio by Category & Geography



Loans By Area	<u>Amount</u> (2)(4)	% of Total
Bryan / College Station	\$854	4.2%
Central Oklahoma	\$607	3.0%
Central Texas	\$2,654	13.1%
Dallas / Ft. Worth	\$6,591	32.5%
East Texas	\$740	3.6%
Houston	\$4,740	23.3%
South Texas	\$1,470	7.2%
Tulsa	\$564	2.8%
West Texas	\$2.082	10.3%

Loans by Rate Structure



Total Loans: \$21.2Bn Loans HFI (Excl. WPP): \$20.4Bn

Yield on Total Loans: 5.75%⁽¹⁾
Yield on Loans HFI (Excl. WPP): 5.68%⁽¹⁾
Core Yield on Loans HFI (Excl. WPP): 5.64%⁽¹⁾⁽³⁾

Source: Company Documents

- (1) Data for the three months ended December 31, 2023
- Excludes \$53 million in loans assigned to the Corporate Group
- (3) Core yield excludes purchase accounting adjustments
- (4) Excludes Warehouse Purchase Program (WPP) loans

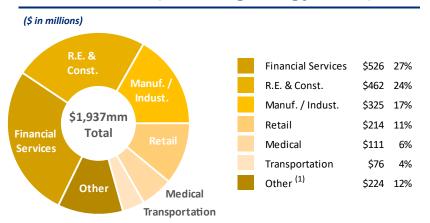
Loan Portfolio Detail

As of December 31, 2023 (\$ in millions)

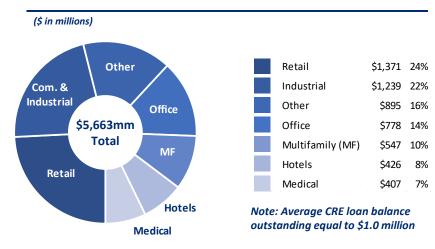
Portfolio Commentary

- Loan portfolio is diversified across the Bank's market areas and by underlying collateral type
- CRE and construction loans conservatively underwritten to cost of collateral
- 36% of commercial real estate is owner occupied
- Average total CRE loan-to value of 53%
- Average office CRE loan-to-value of 51%
- Non-owner-occupied office CRE of \$511 million, or 2.4% of total loans

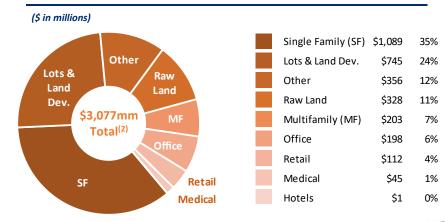
C&I Detail (Excluding Energy Loans)



Commercial Real Estate Detail



Construction Detail





⁽¹⁾ Includes State & Political loans

⁽²⁾ Total includes a net unaccreted discount of (\$701,000) not shown in graph

Changes to Allowance for Credit Losses

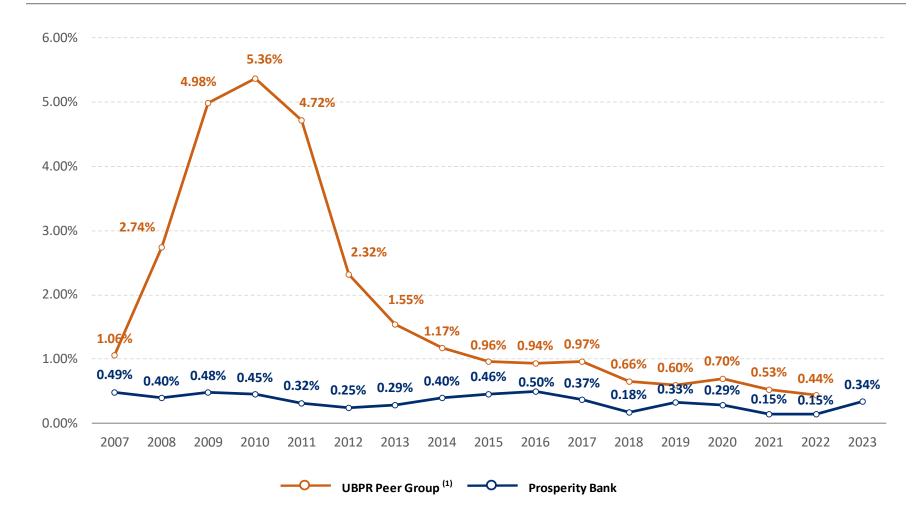
(\$ in millions)

Total Allowance for Credit Losses and Unfunded Commitments \$388.0 million \$368.9 million 1.71% ACL to Total 1.63% ACL to Total Loans (1) Loans (1) \$9.5 \$351.5 (\$19.1) \$332.4 (\$7.4) (\$2.1) Net increased Net charge-offs reserve related to PCD recoveries Outstanding changes in macro-(\$16.3) million balances economic related to PCD loans (\$7.4) million conditions, released related to Historical loss rates qualitative resolved PCD loans Non-PCD specific economic outlook without any charge reserves offs during the fourth quarter \$36.5 \$36.5

Q3 2023 ACL

Asset Quality

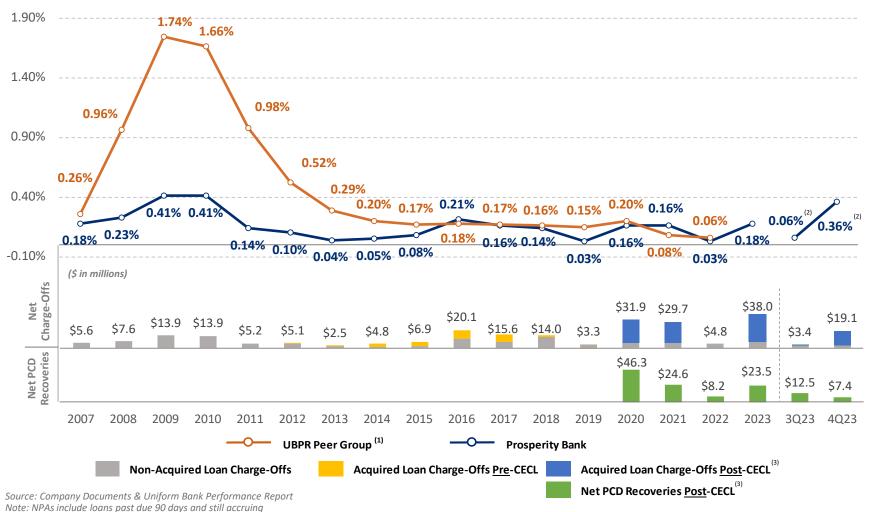
NPAs / Loans + OREO





Asset Quality

Net Charge-Offs / Average Loans



(1) UBPR = Uniform Bank Performance Report; Peer Group 2 (114 banks) – Insured commercial banks having assets between \$10 billion and \$100 billion

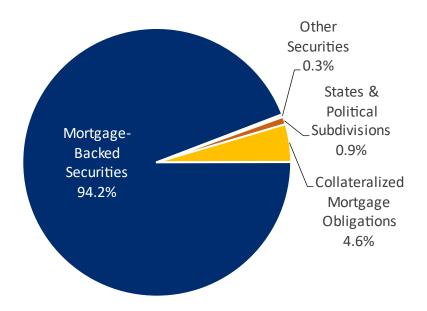
(2) Interim period net charge-off ratios shown on an annualized basis

Reflects all charge-offs and recoveries on acquired loans in accordance with CECL accounting practices; Prior to the adoption of CECL in the first quarter of 2020, PCD loans were classified as Purchased Credit Impaired (PCI) loans and their assigned fair-value marks were netted against the outstanding loan balance with a charge-off only being recorded when the loss exceeded the amount of fair-value marks remaining.



Securities Portfolio Detail

As of December 31, 2023 (\$ in millions)



96.6% Held to Maturity 3.4% Available for Sale

	\$mm
Mortgage-Backed Securities	\$12,063
Collateralized Mortgage Obligations	\$583
States & Political Subdivisions	\$116
Other Securities	\$34
U.S. Government Agency Securities	\$8

Total Securities: \$12.8Bn

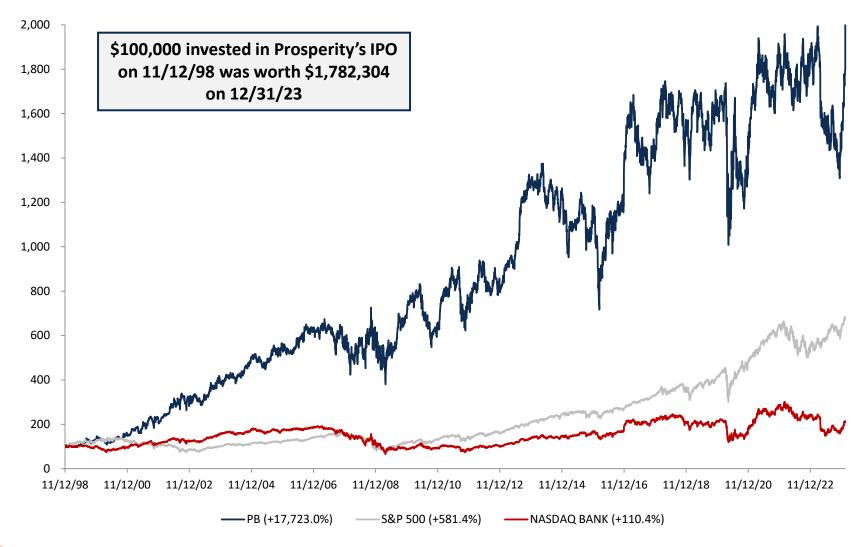
Yield on Securities: 2.07%⁽¹⁾
Duration: ~4.4 Yrs.⁽²⁾

Avg. Yearly Cash Flow: ~\$2.2Bn



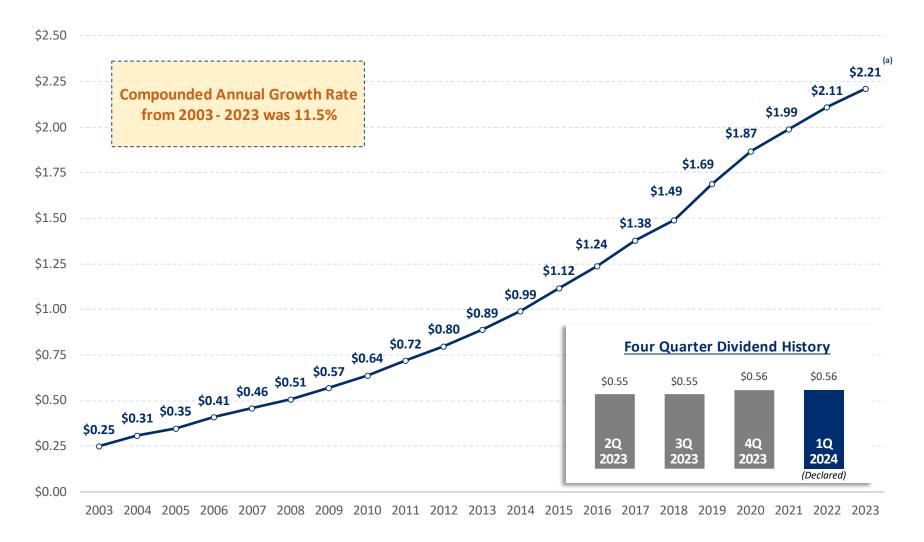
Total Return Performance

IPO (November 12, 1998) to December 31, 2023





Dividend History





Presence in Fast-Growing Markets

Positioned in Strong Markets



- Today, Texas is the 2nd largest state in the U.S by population with over 30 million residents
- Ranked #1 on the Fortune 500 list with 55 headquartered companies in 2023
- Ranked #1 state for business for the 9th consecutive time by U.S. corporate executives in an International Economic Development Council survey



- Oklahoma City and Tulsa MSAs comprise over 60% of the state's population
- Oklahoma is home to 6 of the 2023 Fortune 500 Companies
- Top 5 state for production of natural gas and production of crude oil
- Oklahoma is one of the top 10 producers of wheat in the United States

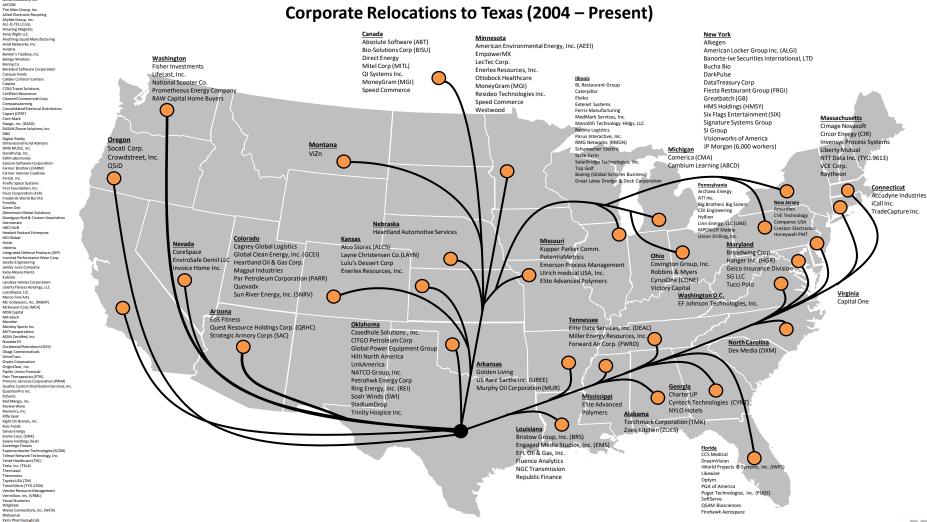
Top 10 Fastest Growing MSAs in the U.S. (1)

Metropolitan Statistical Area	Prosperity Presence	Prosperity Deposits (\$mm)	2023 - 2028 Population Growth
Austin-Round Rock-Georgetown, TX	✓	\$1,309	7.8%
<u> </u>		71,505	
Raleigh-Cary, NC			7.4%
Jacksonville, FL			6.9%
Orlando-Kissimmee-Sanford, FL			6.3%
Nashville-DavidsonMurfreesboroFranklin, TN			6.1%
Charlotte-Concord-Gastonia, NC-SC			5.8%
Tampa-St. Petersburg-Clearwater, FL			5.2%
San Antonio-New Braunfels, TX	✓	\$541	5.0%
Dallas-Fort Worth-Arlington, TX	✓	\$6,492	5.0%
Houston-The Woodlands-Sugar Land, TX	✓	\$5,648	4.8%

Presence in four of the fastest growing MSAs in the United States



Corporate Relocations to Texas



Aatonomy AccentCare Active Networks AEND Industries, Inc.

Boring Co.

Cacique Foods

Digital Realty

DMX MUSIC, Inc.

DynaPump, Inc. EDM Labortories

Allied Electronic Recyclini AllyMe Group, Inc ALL-Q-TELL Corp.

Boreland Software Corporation

Caliber Collision Centers

Channell Commercial Corp

Consolidated Electrical Distr Copart (CPRT) Core-Mark Daegis, Inc. (DAEG) DASAN Zhone Solutions, Inc.

Enicore Software Cornoration

Farmer Veteran Coalition

First Foundation, Inc. Fluor Corporation (FLR) Freebirds World Burrito

Hewlett Packard Enterprise

Inbenta
Integrated Defense Products (IDP)
Ironclad Performance Wear Corp.
Jacobs Engineering
Jamba Juice Company
Kelly-Moore Paints
Kubota
Landsea Homes Corporation

Liberty Fitness Holdings, LLC LoanDepot, LLC

Marco Fine Arts MC Endeavors, Inc. (MSMY

Monkey Sports Inc. MVTransportation M2M Certified, Inc.

M2M Certified, Inc. Noodoe EV Occidental Ptetroleum Obagi Cosmeceuticals OmniTracs Oracle Corporation

Pain Therapeutics (PTIE)

OriginClear, Inc.

QuestionPro Inc

Sanyo Energy

Tenet Healthcare (THC)

Thermomix Toyota USA (TM) Trend Micro (TYO.4704) Vendor Resource Manage Vermillion, Inc. (VRML) Visual Numerics

Xeris Pharmaceutical

W3global Waste Connections, Inc. (WCN)

Tesla, Inc. (TSLA)

MDR Capital

HBCI HUB

HID Global

CompassLearning Consolidated Electrical Distributor

CCRA Travel Solutions

Houston Market Highlights

Market Highlights

- Houston MSA is the 5th largest in the United States by population with nearly 7.4 million residents
 - Population is expected to grow 4.8% from 2023 2028
 - Median Household Income is expected to grow 8.7% from 2023 2028
- Home to NASA's Johnson Space Center and Texas Medical Center the world's largest medical complex
- As of November 2023, total nonfarm employment has increased 2.3% YoY, compared to the 12 month statewide increase of 3.0% and the nationwide increase of 1.8%
 - Employment in Houston has increased 3.8% YoY in the financial activities sector and 5.3% YoY in the education and health services sector, compared to 4.0% and 5.0% statewide, respectively
- Houston is an emerging entrepreneurial hub
 - Over the last five years, venture-backed startups have received more than \$5B in venture capital funding
 - Houston has 80+ startup development organizations (e.g. incubators, accelerators, non-profits, etc.) to assist the regions entrepreneurs

Select Fortune 500 Companies









































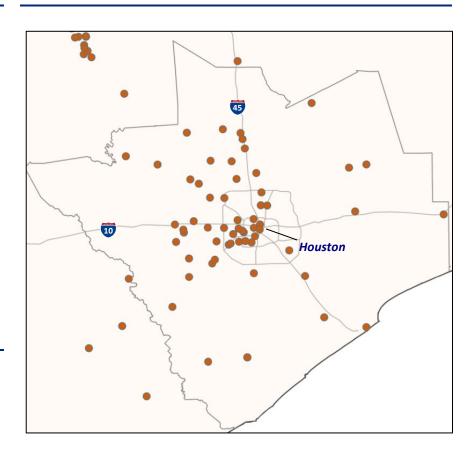








Houston Franchise





Dallas/Ft. Worth Market Highlights

Market Highlights

- Dallas/Ft. Worth MSA is the 4th largest in the United States by population with over 7.9 million residents
 - Population is expected to grow 5.0% from 2023 2028
 - Median Household Income is expected to grow 12.1% from 2023 2028
- As of November 2023, total nonfarm employment has increased 3.3% YoY, compared to the 12 month statewide increase of 3.0% and the nationwide increase of 1.8%
 - Employment in Dallas/Ft. Worth has increased 4.7% YoY in the financial activities sector and 4.1% YoY in the professional and business services sector, compared to 4.0% and 2.4% statewide, respectively
- Among the largest U.S. metros, the Dallas Region has led in annual estimated population growth, rate of growth, or both throughout the past decade
- Headquarters to 24 Fortune 500 companies

Select Fortune 500 Companies





































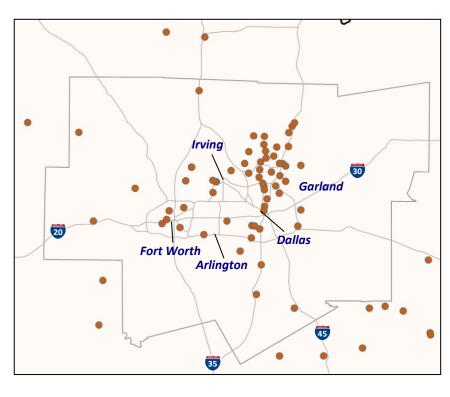








Dallas / Ft. Worth Franchise





Austin Market Highlights

Market Highlights

- For the 12th consecutive year, the Austin metro area was the fastest growing region in the county, among large metros
 - Ranks first among MSAs for new residents as a percent of total population
- Expected population growth of 7.8% from 2023 2028
- As of November 2023, total nonfarm employment has increased 2.8% YoY, compared to the 12 month statewide increase of 3.0% and the nationwide increase of 1.8%
 - As of November 2023 employment in Austin has increased 6.0% YoY in the education and health services sector and 4.7% YoY in professional and business services sector, compared to 5.0% and 2.4% statewide, respectively
- In the Austin metro, 46.2% of adults have at least a bachelor's degree, compared to 33.1% nationally, putting Austin in the top 10 among the largest metros
- Population increases for more than a decade have helped Austin become the 10th most populous city in the U.S.
 - Austin is projected to be the third largest U.S. city by 2030

Select Fortune 500 Companies

















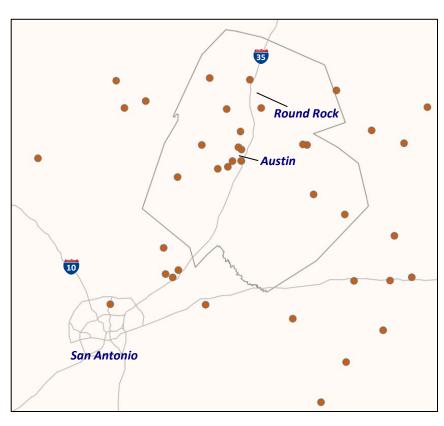








Austin Franchise





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