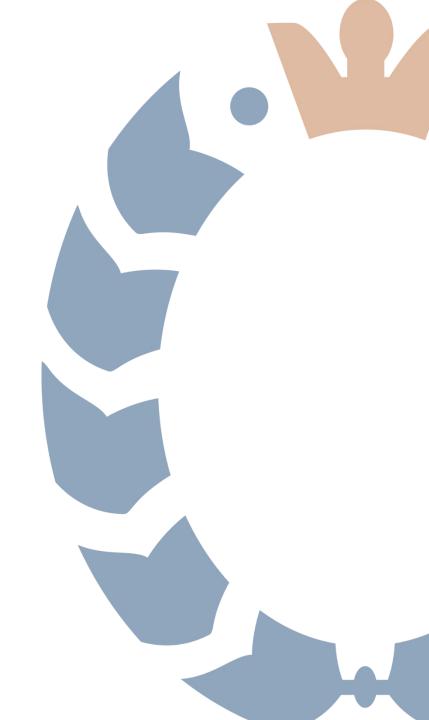


Investor Presentation

Fourth Quarter 2020 ——



"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 release 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. Forward-looking statements are typically, but not exclusively, identified by the use in the statements of words or phrases such as "aim," "anticipate," "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, future capital structure or changes therein, as well as the plans and objectives of management for Prosperity's future operations, future or proposed acquisitions, 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 the proposed transaction, and statements about the assumptions underlying any such statement, as well as expectations regarding the effects of the COVID-19 pandemic on the Bank's operating income, financial condition and cash flows. These forward looking statements are not guarantees of future performance and are subject to risks and uncertainties, many of which are outside of Prosperity's control, which may cause actual results to differ materially from those expressed or implied by the forward-looking statements. 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 LegacyTexas; 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 LegacyTexas transaction, 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; the effect, impact potential duration or other implications of the COVID-19 pandemic; and weather. These and various other factors are discussed in Prosperity Bancshares' Annual Report on Form 10-K for the year ended December 31, 2019, Quarterly Report on Form 10-Q for the period ended September 30, 2020, and other reports and statements Prosperity Bancshares has filed with the Securities and Exchange Commission ("SEC"). Copies of the SEC filings for Prosperity Bancshares may be downloaded from the Internet at no charge from PB http://www.prosperitybankusa.com.

2020 Fourth Quarter Highlights

- Net income of \$137.1 million and earnings per share (diluted) of \$1.48 for three months ended
 December 31, 2020
- Assets of \$34.1 billion, total loans of \$20.2 billion, and deposits of \$27.4 billion at December 31,
 2020
- Common equity tier 1 ratio of 13.74% and leverage ratio of 9.67% at December 31, 2020
- Nonperforming assets to average earning assets remain low at 0.20% or \$59.6 million for the fourth quarter 2020
- Allowance for credit losses on loans and on off-balance sheet credit exposure of \$346.0 million
- Allowance for credit losses to total loans, excluding Warehouse Purchase Program and SBA Paycheck Protection Program loans, of 1.92%
- Efficiency ratio of 40.8% for the fourth quarter 2020
- Declared cash dividend of \$0.49 for the first quarter 2021

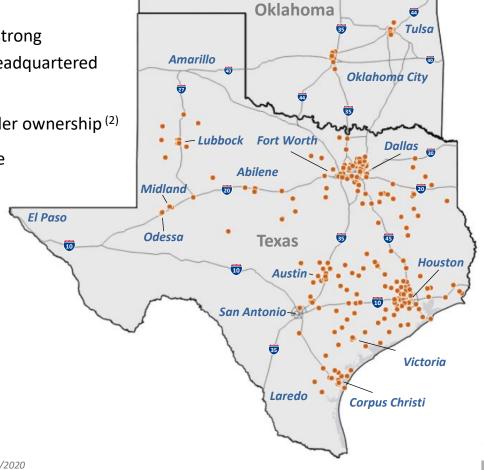


Strong Presence in Texas and Oklahoma

- A Texas-based financial holding company with \$34.1 billion in total assets
- Ranked #3 in deposit market share in Texas (1)
- Texas and Oklahoma continue to benefit from strong economies, and are home to 55 Fortune 500 headquartered companies
- Shareholder driven with 4.0% fully diluted insider ownership (2)
- Successful completion of 43 acquisitions (whole bank, branch and failed bank transactions)

275 Full-Service Locations

- 16 in Bryan/College Station Area
- 6 in Central Oklahoma Area
- 29 in Central Texas Area
- 65 in Dallas/Fort Worth Area
- 22 in East Texas Area
- 65 in Houston Area
- 30 in South Texas Area
- 8 in Tulsa Area
- 34 in West Texas Area

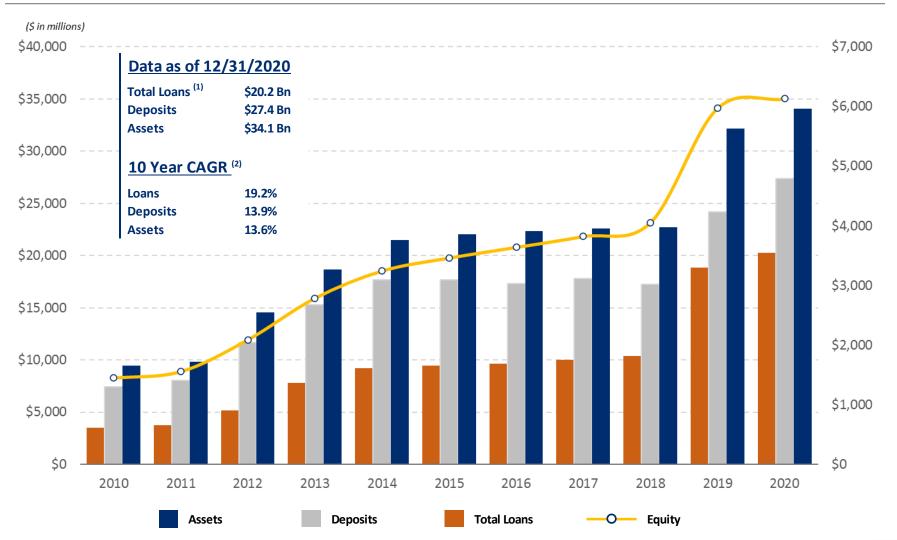


Source: SNL Financial

⁽¹⁾ Per FDIC; Includes Texas headquartered commercial banks; Deposits as of 6/30/2020

⁽²⁾ Per proxy statement (Form DEF 14A) filed on 3/14/2020

Balance Sheet Summary



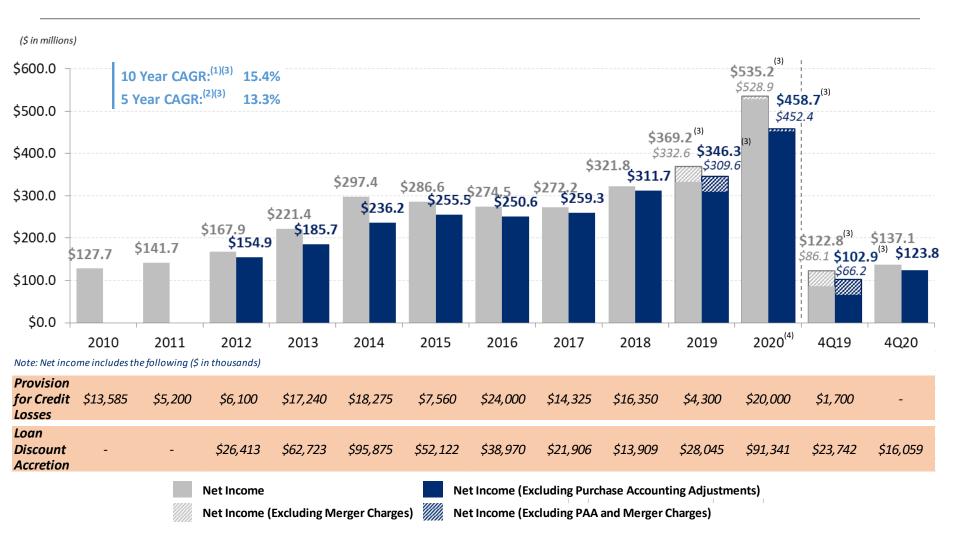


⁽¹⁾ Total loans include Warehouse Purchase Program (WPP) loans



⁽²⁾ Represents the Compound Annual Growth Rate from 12/31/2010 – 12/31/2020

Net Income



Source: Company Documents

(4) Includes NOL tax benefit of \$20.145 million related to the CARES Act

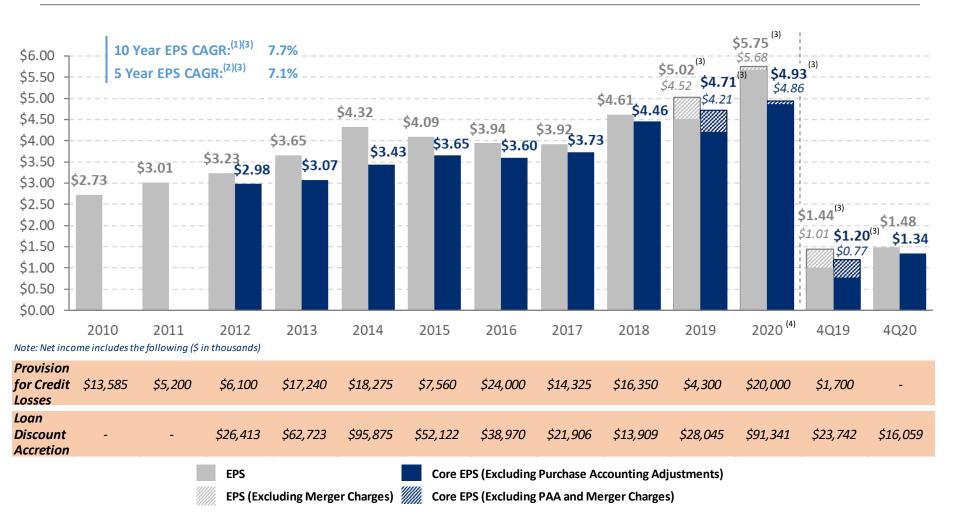


⁽¹⁾ Represents the Compound Annual Growth Rate of net income from 12/31/2010 – 12/31/2020

⁽²⁾ Represents the Compound Annual Growth Rate of net income from 12/31/2015 – 12/31/2020

⁽³⁾ Excludes after-tax merger related charges of (\$36.658) million for the fourth quarter 2019, (\$0.430) million for the first quarter 2020 and (\$5.904) million for the second quarter 2020

Earnings Per Share



Source: Company Documents

(4) Includes NOL tax benefit of \$20.145 million related to the CARES Act

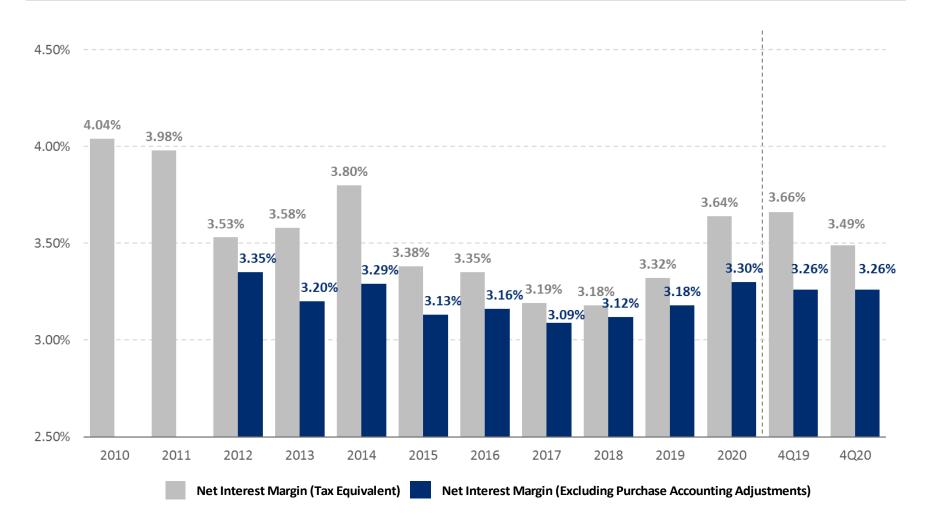


⁽¹⁾ Represents the Compound Annual Growth Rate for EPS from 12/31/2010 – 12/31/2020

²⁾ Represents the Compound Annual Growth Rate for EPS from 12/31/2015 – 12/31/2020

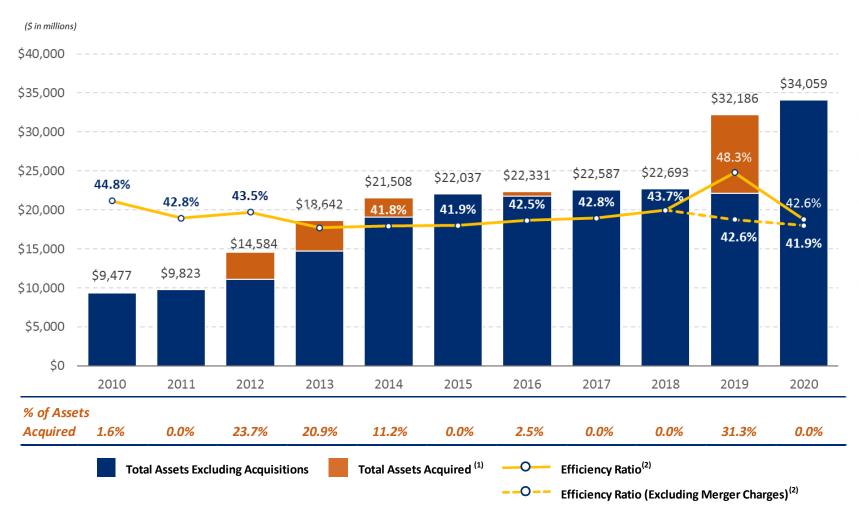
⁽³⁾ Excludes after-tax merger related charges of (\$0.50) per share for the year ended 2019, (\$0.00) per share for the first quarter 2020 and (\$0.06) per share for the second quarter 2020

Net Interest Margin





Acquisitions & Efficiency Ratio



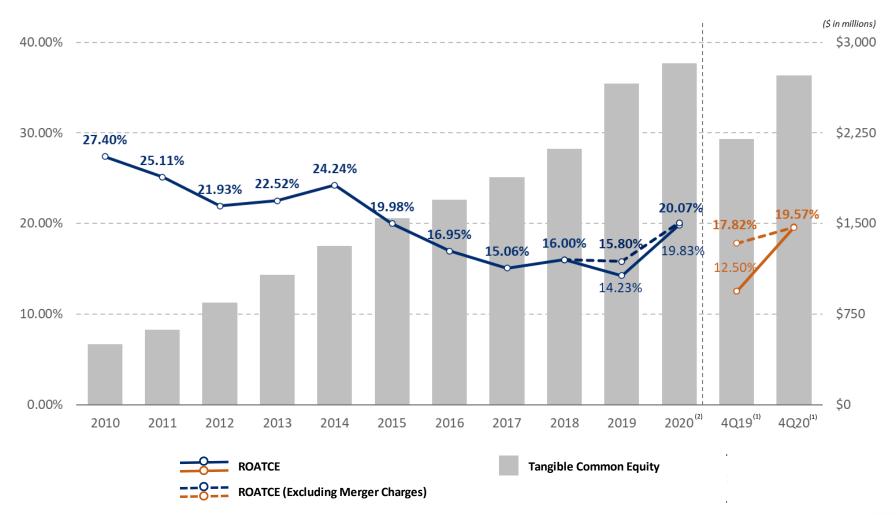
Source: Company Documents



⁽¹⁾ Representative of target assets at closing

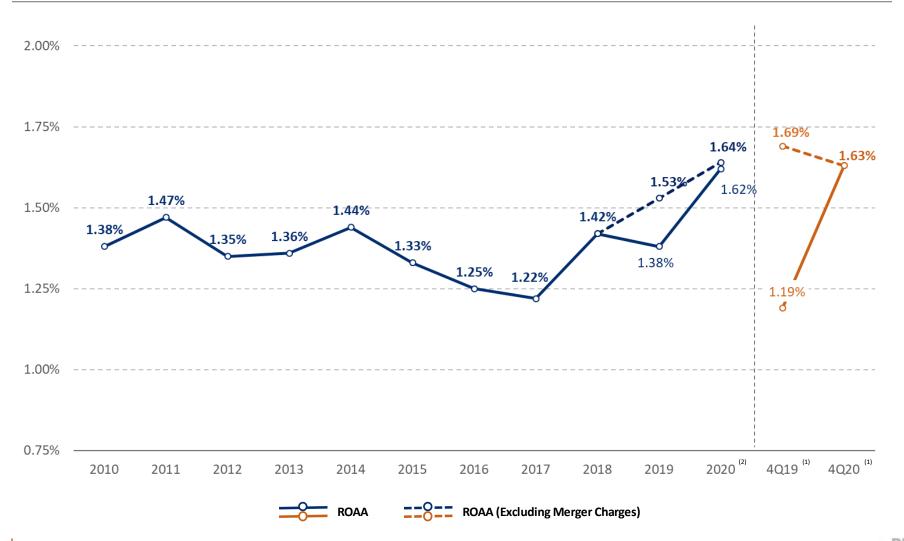
²⁾ Calculated by dividing total noninterest expense, excluding credit loss provisions, by net interest income plus noninterest income, excluding net gains and losses on the sale or write down of assets and securities. Additionally, taxes are not part of this calculation.

Return on Average Tangible Common Equity





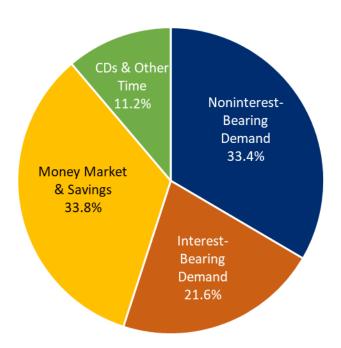
Return on Average Assets





Deposit Composition

As of December 31, 2020 (\$ in millions)



	\$mm	Cost (%) ⁽¹⁾
Noninterest-Bearing Demand	\$9,151	0.00%
Interest-Bearing Demand	\$5,899	0.38%
Money Market & Savings	\$9,244	0.30%
CDs & Other Time	\$3,066	0.98%

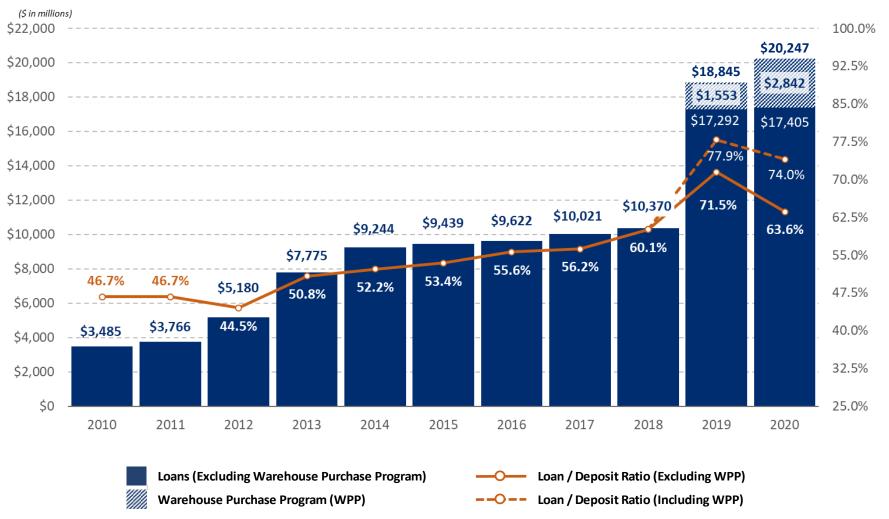
Total Deposits: \$27.4Bn

Total Cost of Deposits: 0.29%⁽¹⁾

Cost of Interest-Bearing Deposits: 0.44%⁽¹⁾



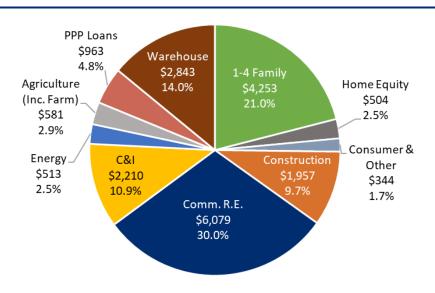
Loan Growth



Loan Portfolio Overview

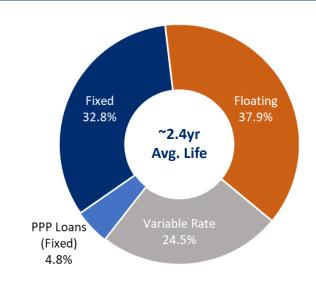
As of December 31, 2020 (\$ in millions)

Loan Portfolio by Category & Geography



Loans By Area	Amount ⁽²⁾⁽⁴⁾	% of Total	
Bryan / College Station	\$653	3.8%	
Central Oklahoma	\$648	3.8%	
Central Texas	\$1,660	9.6%	
Dallas / Ft. Worth	\$7,262	42.0%	
East Texas	\$519	3.0%	
Houston	\$3,620	21.0%	
South Texas	\$1,316	7.6%	
Tulsa	\$594	3.4%	
West Texas	\$1,004	5.8%	

Loans by Rate Structure



Total Loans: \$20.2Bn Loans HFI (Excl. WPP): \$17.4Bn

Yield on Total Loans: 4.72%⁽¹⁾
Yield on Loans HFI (Excl. WPP): 4.95%⁽¹⁾
Core Yield on Loans HFI (Excl. WPP): 4.59%⁽¹⁾⁽³⁾

Source: Company Documents

- (1) Data for the three months ended December 31, 2020
 - Excludes \$128 million in loans assigned to the Corporate Group
- (3) Core yield excludes purchase accounting adjustments
- (4) Excludes Warehouse Purchase Program (WPP) loans

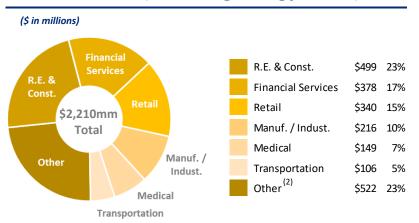
Loan Portfolio Detail

As of December 31, 2020 (\$ in millions)

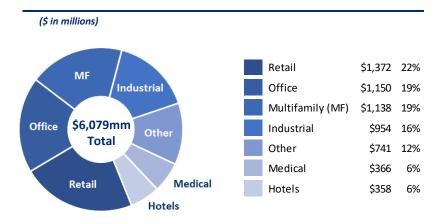
Portfolio Commentary

- 29% of commercial real estate is owner occupied
- CRE and construction loans conservatively underwritten to cost of collateral
- Hotel loans equal to ~2% of total loans
- Restaurant loans equal to ~1% of total loans

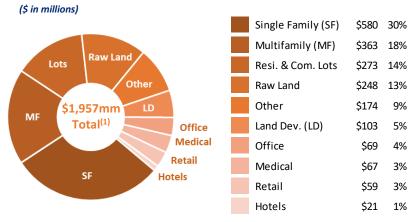
C&I Detail (Excluding Energy Loans)



Commercial Real Estate Detail



Construction Detail



Source: Company Documents

⁽¹⁾ Total includes a net unaccreted discount of (\$0.191) million, not shown in graph

⁽²⁾ Includes State & Political loans

Energy Portfolio Detail

As of December 31, 2020 (\$ in millions)

Energy Detail - Outstanding Balance



Energy Detail - Unfunded Commitments



Portfolio Commentary

- Total energy loan loss reserves of 6.3%, or \$32.4 million (excluding fair value marks)⁽¹⁾
- \$149.8 million, or 29.2% of energy loans, are subject to fair value marks of \$6.2 million in addition to general and specific loan loss reserves
- Portfolio company-led with 0 Shared National Credits (SNCs)
- Portfolio focused on lending on proven producing reserves and therefore not dependent on ongoing development
- Acquired oil portfolio is 83.4% hedged during 2021 at a weighted average price of \$43.64 and 36.9% hedged during 2022 at a weighted average price of \$34.08
- Acquired gas portfolio is 58.9% hedged during 2021 at a weighted average price of \$2.26 and 36.7% hedged during 2022 at a weighted average price of \$2.54



Changes to Allowance for Credit Losses

(\$ in millions)

1.94% ACL to Total Loans (1)(2)

1.92% ACL to Total Loans (1)(2)

\$323.6 (\$7.6)(\$9.6)Allowance for Net Charge-offs **Credit Losses** PCD recoveries \$4.8 million related to PCD loans \$4.8 million excess resolved within their PCD release related credit marks to loans charged off during the fourth quarter \$4.8 million released related to loans without any charge offs during the fourth quarter Allowance for Unfunded **Commitments** (Other Liabilities) \$29.9

(\$7.7)

- Outstanding balances
- Historical loss rates
- Non-PCD specific reserves

Net increased reserve related to changes in macro-economic conditions and qualitative economic outlook

\$17.4

\$316.1

Allowance for **Credit Losses**

Allowance for Unfunded Commitments (Other Liabilities)

\$29.9

Portfolio Changes

Increase for Environmental Outlook

Q4 2020 ACL

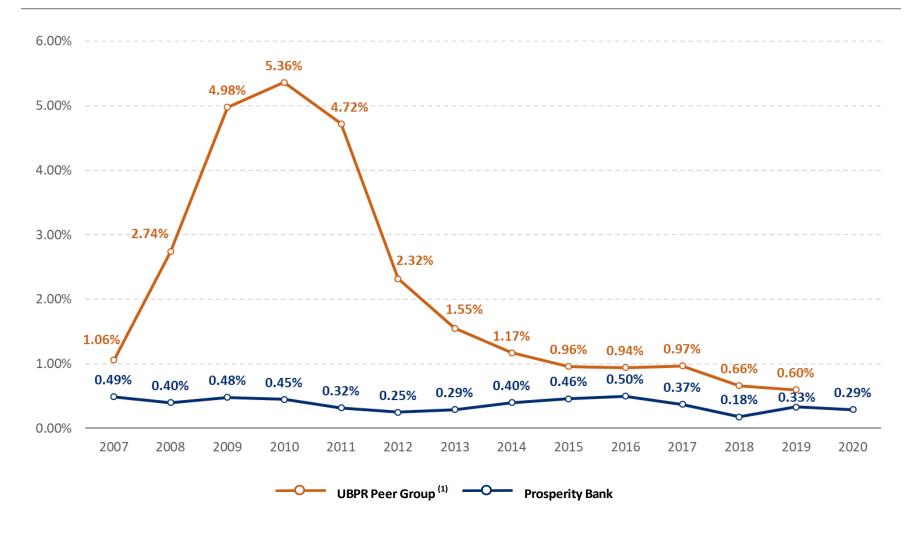
Q3 2020 ACL

Portfolio Changes

Portfolio Changes

Asset Quality

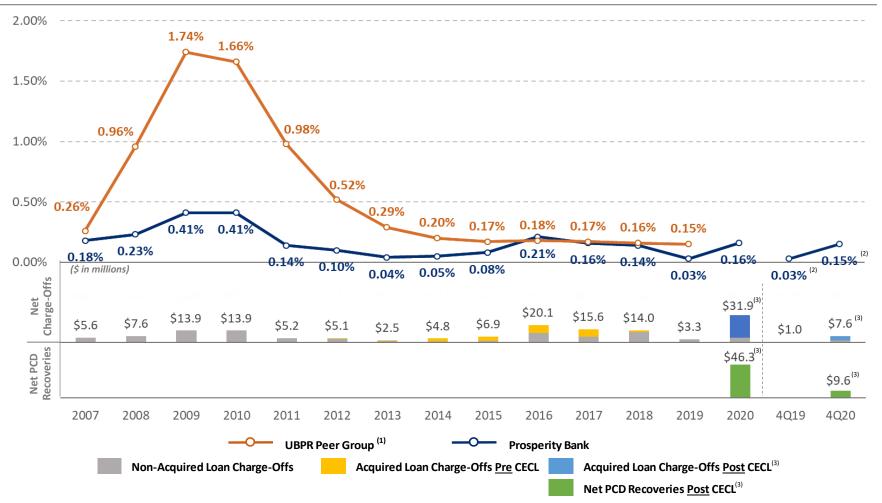
NPAs / Loans + OREO





Asset Quality

Net Charge-Offs / Average Loans



Source: Company Documents & Uniform Bank Performance Report Note: NPAs include loans past due 90 days and still accruing

(1) UBPR = Uniform Bank Performance Report; Peer Group 2 (94 banks) - Insured commercial banks having assets between \$10 billion and \$100 billion

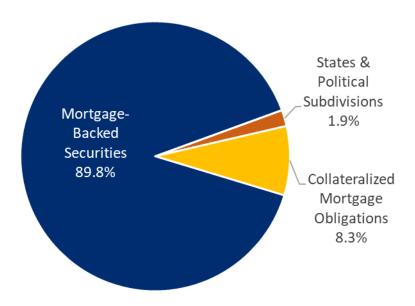
2) Interim period net charge-off ratios shown on an annualized basis

Reflects charge-offs and Purchased Credit Deteriorated (PDD) loan recoveries resolved within their respective credit marks on acquired PCD 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, 2020 (\$ in millions)



92.4% Held to Maturity 7.6% Available for Sale

	\$mm
Mortgage-Backed Securities	\$7,668
Collateralized Mortgage Obligations	\$707
States & Political Subdivisions	\$166

Total Securities: \$8.5Bn

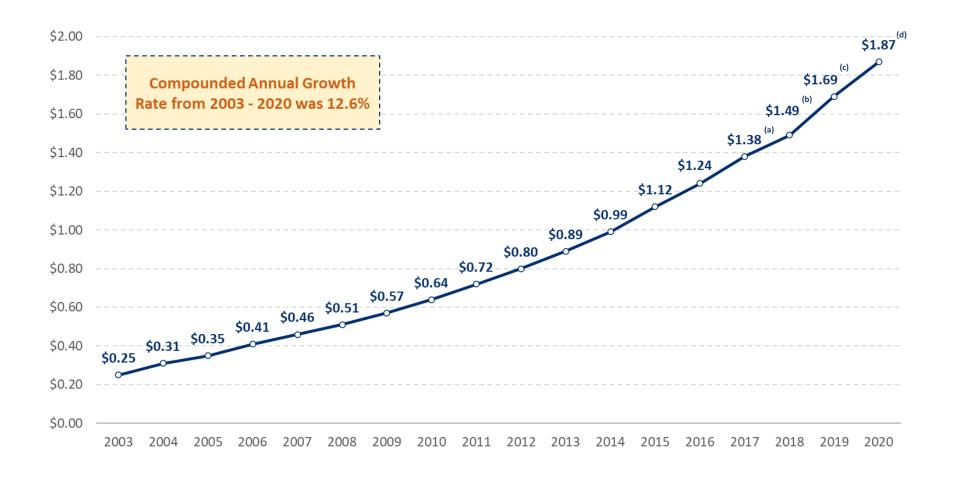
Yield on Securities: 1.83%⁽¹⁾

Duration: ~2.7 Yrs.⁽²⁾

Avg. Yearly Cash Flow: ~\$2.4Bn



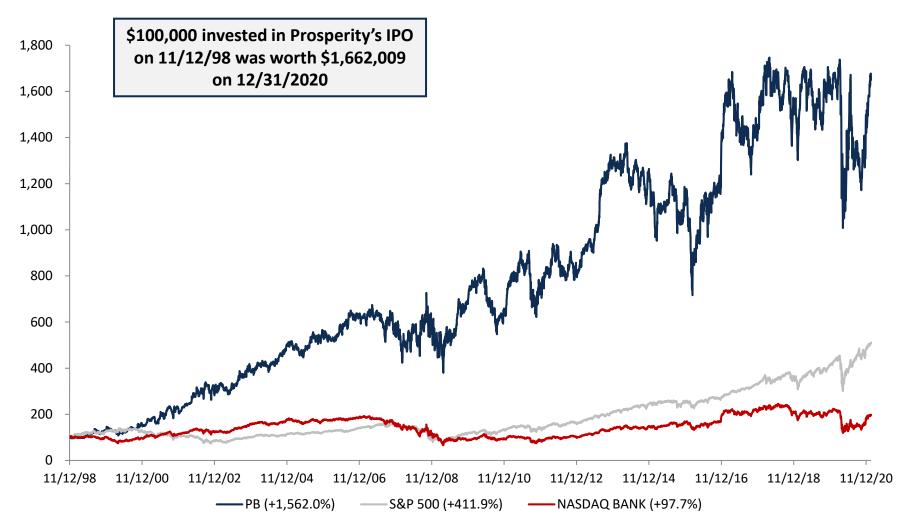
Dividend History





Total Return Performance

IPO (November 12, 1998) to December 31, 2020



Presence in Fast-Growing Markets

Positioned in Strong Markets



- Today, Texas is the 2nd largest state in the U.S., and largest in the 48 contiguous U.S. with over 29 million residents
- Ranked #3 on the Fortune 500 list with 50 headquartered companies in 2020
- Ranked #1 state for business for the 8th consecutive time by U.S. corporate executives in an International Economic Development Council survey



- Oklahoma City and Tulsa MSAs comprise over 50% of the state's population
- Oklahoma is home to five Fortune 500 Companies in 2020
- 3rd biggest producer state for natural gas and 5th biggest for crude oil
- Oklahoma is one of the top five producers of wheat and Natural gas in the United States

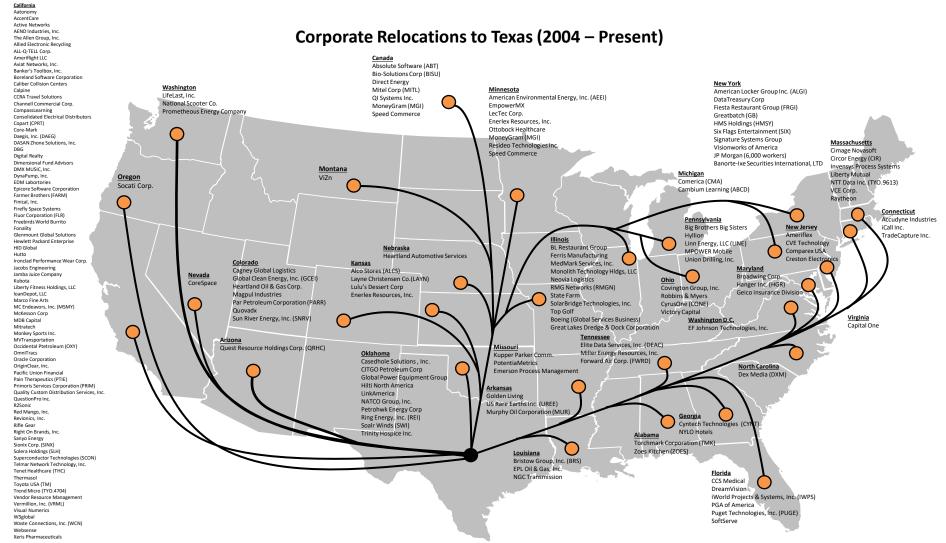
Top 10 Fastest Growing MSAs in the U.S. (1)

	Metropolitan Statistical Area	Prosperity Presence	Prosperity Deposits (\$mm)	2021 - 2026 Population Growth
1	Austin-Round Rock-Georgetown, TX	✓	\$1,140	8.5%
2	San Antonio-New Braunfels, TX	✓	\$436	7.6%
3	Houston-The Woodlands-Sugar Land, TX	✓	\$5,635	7.6%
4	Dallas-Fort Worth-Arlington, TX	✓	\$7,532	7.5%
5	Raleigh-Cary, NC			7.3%
6	Orlando-Kissimmee-Sanford, FL			7.1%
7	Denver-Aurora-Lakewood, CO			7.0%
8	Phoenix-Mesa-Chandler, AZ			6.9%
9	Las Vegas-Henderson-Paradise, NV			6.8%
10	Seattle-Tacoma-Bellevue, WA			6.8%

- Presence in the top four fastest growing MSAs in the United States
- The South is home of 9 of the 15 fastest growing cities with populations greater than 50,000 in the United States



Corporate Relocations to Texas



Houston Market Highlights

Market Highlights

- Houston MSA is the 5th largest in the United States by population with approximately 7.2 million residents
 - Population is expected to grow 7.6% from 2021 to 2026
- As of November 2020, total nonfarm employment fell by 4.6% YoY, compared to a 3.7% YoY decrease statewide and 6.0% decrease nationwide
 - 8 of the 12 largest MSAs by population experienced greater YoY decreases in nonfarm payrolls than Houston
- Headquarters to 21 Fortune 500 companies
 - Home to the Texas Medical Center the world's largest medical complex, and NASA's Johnson Space Center
 - Hewlett Packard Enterprise recently announced that it will move its headquarters to the Houston Area
 - The Port of Houston is 1st in the U.S. in international waterborne tonnage handled and 2nd in total cargo tonnage handled

Select Fortune 500 Companies

































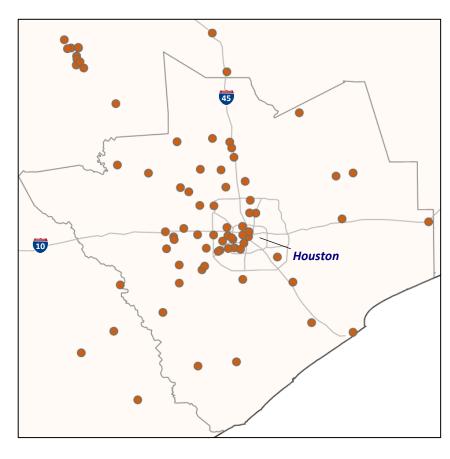








Houston Franchise



Dallas/Ft. Worth Market Highlights

Market Highlights

- Dallas/Ft. Worth MSA is the 4th largest in the United States by population with over 7.7 million residents
 - Population is expected to grow 7.5% from 2021 to 2026
- As of November 2020, total nonfarm employment has only decreased 2.5% YoY, compared to the 12 month statewide decrease of 3.7% and the nationwide decrease of 6.0%
 - Among the 12 largest MSAs by population, Dallas-Fort Worth-Arlington had the lowest YoY decrease in nonfarm payrolls
- As of November 2020, financial activities / services industry saw a 4.6% YoY increase in employment – higher than any of the other top MSAs – compared to a 0.8% decrease nationwide.
- Headquarters to 23 Fortune 500 companies
- The Dallas Economic Recovery Task Force announced a new initiative, Dallas Forward, to assist small and medium-sized businesses with COVID-19 recovery

Select Fortune 500 Companies































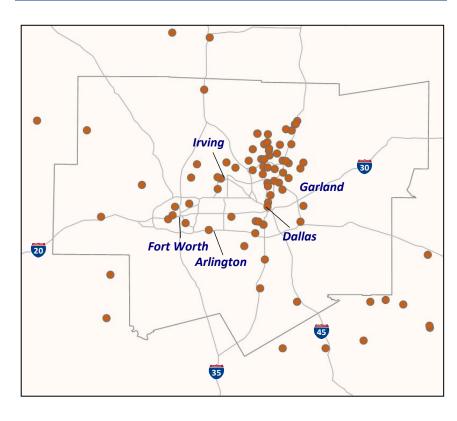








Dallas / Ft. Worth Franchise





Austin Market Highlights

Market Highlights

- Ranked #3 place to live in the U.S. in 2020 by U.S. News and World Report, with expected population growth of 8.5% through 2026
- Ranked as the 3rd best city for technology professionals to work
 - IT job growth is expected to expand 15% over the next 5 years
- In November 2020, Austin/Round Rock reported a 1.1% year-over-year decrease in nonfarm employment, compared to a 3.7% decrease statewide and 6.0% decrease nationwide
 - Unemployment rate is 5.9%, compared to 8.1% statewide
 - Employment in the financial activities / services sector has increased 17.5% YoY
- Since the end of September 2020, 27 companies have announced expansions to existing operations and 12 companies have begun operations in the Austin-Round Rock MSA
- Relative to other major Texas cities, Austin has the highest percentage of job postings with a "work from home" option

Select Fortune 500 Companies















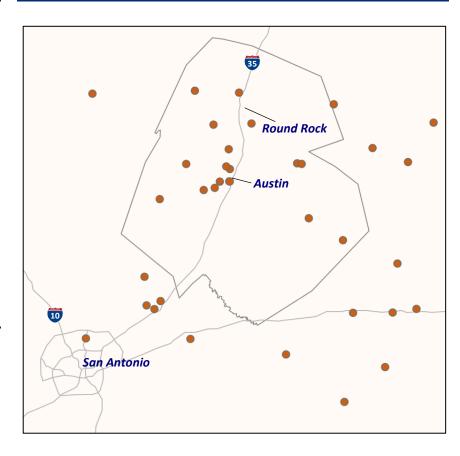








Austin Franchise Franchise





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