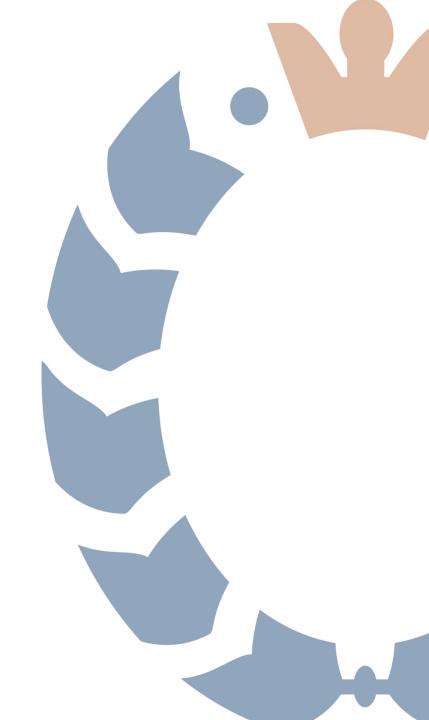


Investor Presentation

First 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 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 http://www.prosperitybankusa.com.

2020 First Quarter Highlights

- Net income of \$130.8 million and earnings per share (diluted) of \$1.39 for three months ended March 31, 2020
- Assets of \$31.7 billion, total loans of \$19.1 billion⁽¹⁾, and deposits of \$23.8 billion at March 31,
 2020
- Common equity tier 1 ratio of 12.27% and leverage ratio of 9.49% at March 31, 2020
- Sound asset quality with annualized net charge-offs / average loans of 0.02%
- Nonperforming assets to average earning assets remain low at 0.25% or \$67.2 million for the first quarter 2020
- Allowance for credit losses on loans and on off-balance sheet credit exposure of \$357.2 million
- Allowance for credit losses to total loans, excluding warehouse purchase program loans, of 1.88%
- Efficiency ratio of 42.90% for the first quarter 2020
- Repurchased 2.1 million shares in the first quarter of 2020
- Declared cash dividend of \$0.46 for the second quarter 2020



Response to Coronavirus Pandemic

Customers & Our Communities

Providing Access to Paycheck Protection Program

- Prosperity is an SBA Preferred Lender
- Began processing PPP applications the day the SBA opened the portal
- Processed and funded approximately 2,700 applications during phase 1 of the PPP program for ~\$630 million
- Currently active in phase 2 of the PPP program with over 1,500 SBA approvals as of April 28th and an estimated 6,000+ applications still to be processed by the SBA
- Average phase 2 loan size of ~\$190 thousand with an estimated remaining application amount of ~\$1.1 billion

CARES Act & Other

- Provided loan deferrals and extensions to borrowers
- 7.7% of loan accounts modified as of April 23rd
- \$67 million in loan extensions as of April 23rd
- Temporarily suspended all new foreclosures and repossessions
- Provided waivers for customers on certain deposit fees and charges
- Actively engaged with customers

Associates & Safety Precautions

Business Continuity and Associate Safety Response

- All banking centers open with lobby access by appointment or walk up request only
 - Encouraging use of motor banking when at all possible
- Heightened sanitary precautions and equipment to keep customers and associates safe
- Separated critical functions across facilities and implemented rotating schedules with remote work capabilities
- Encouraged at-risk associates to work remotely
- Provided paid time off for associates directly impacted by COVID-19

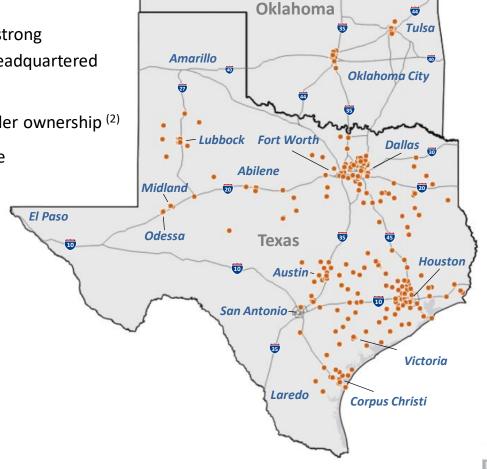


Strong Presence in Texas and Oklahoma

- A Texas-based financial holding company with \$31.7 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 54 Fortune 500 headquartered companies
- Shareholder driven with 4.9% fully diluted insider ownership (2)
- Successful completion of 43 acquisitions (whole bank, branch and failed bank transactions)

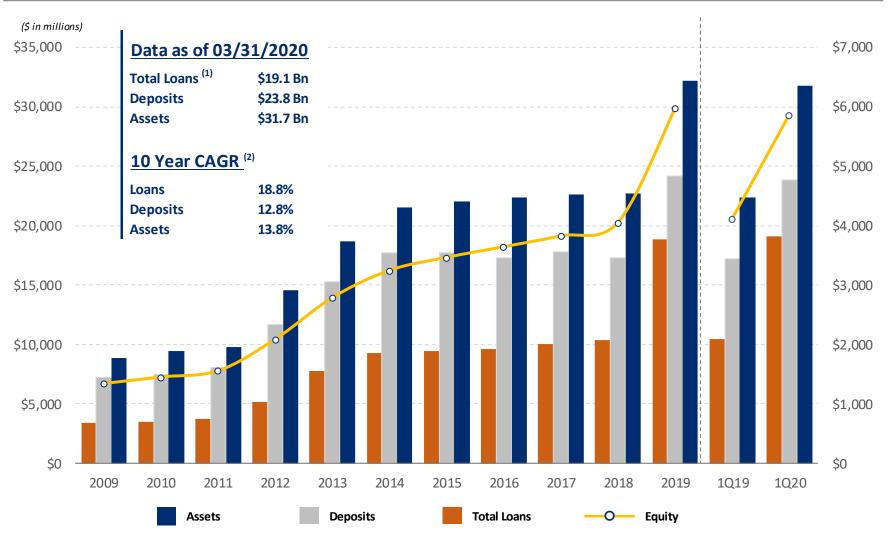
285 Full Service Locations

- 16 in Bryan/College Station Area
- 6 in Central Oklahoma Area
- 29 in Central Texas Area
- 75 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



⁽¹⁾ Per FDIC; Includes Texas headquartered banks; Deposits as of 6/30/2019

Balance Sheet Summary



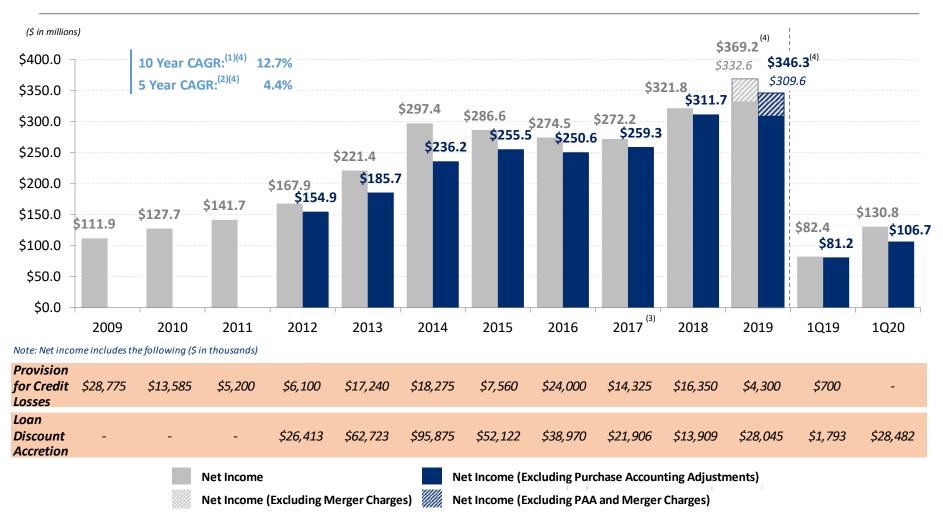


⁽¹⁾ Total loans include Warehouse Purchase Program (WPP) loans



Represents the Compound Annual Growth Rate from 12/31/2009 – 12/31/2019

Net Income



Source: Company Documents

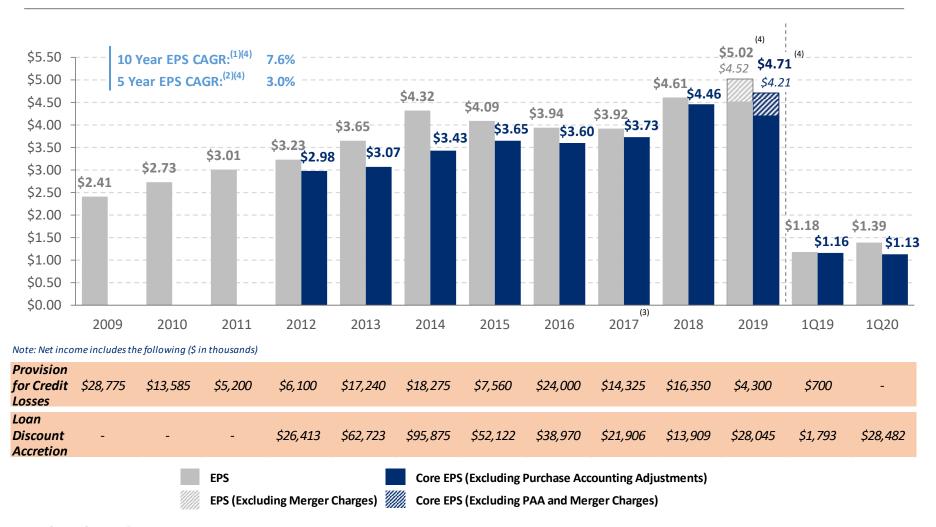
⁽¹⁾ Represents the Compound Annual Growth Rate of net income from 12/31/2009 – 12/31/2019

⁽²⁾ Represents the Compound Annual Growth Rate of net income from 12/31/2014 – 12/31/2019

⁽³⁾ Net income includes a one-time non-cash charge of \$1.431 million related to the "Tax Cuts and Jobs Act" enacted on December 22, 2017

⁽⁴⁾ Excludes after-tax merger related charges of (\$36.658) million for the fourth quarter 2019

Earnings Per Share



Source: Company Documents



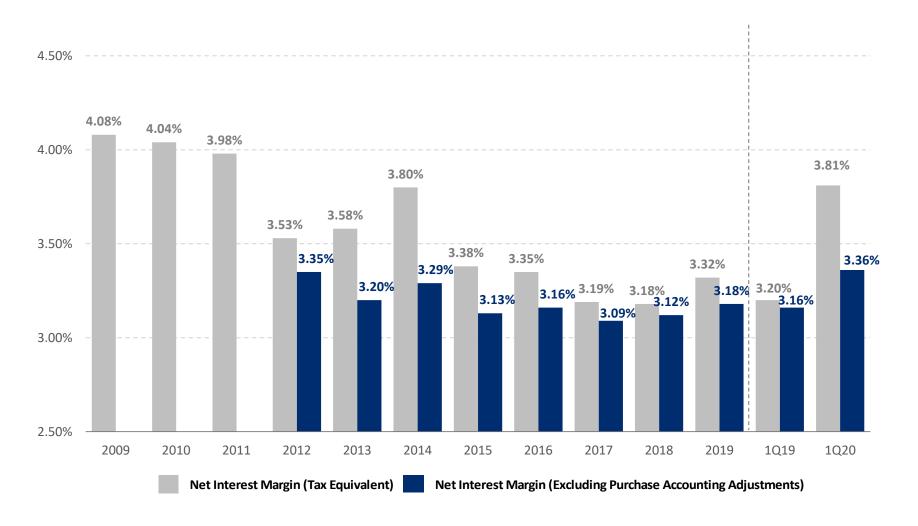
⁽¹⁾ Represents the Compound Annual Growth Rate for EPS from 12/31/2009 – 12/31/2019

²⁾ Represents the Compound Annual Growth Rate for EPS from 12/31/2014 – 12/31/2019

⁽³⁾ Net income includes a one-time non-cash charge of \$0.02 per diluted share related to the "Tax Cuts and Jobs Act" enacted on December 22, 2017

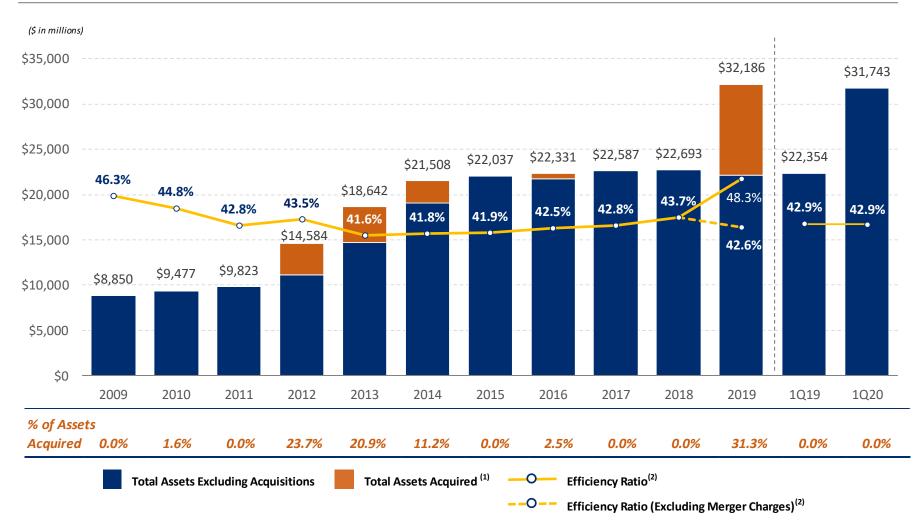
⁽⁴⁾ Excludes after-tax merger related charges of (\$0.50) per share for the year ended 2019

Net Interest Margin





Acquisitions & Efficiency Ratio



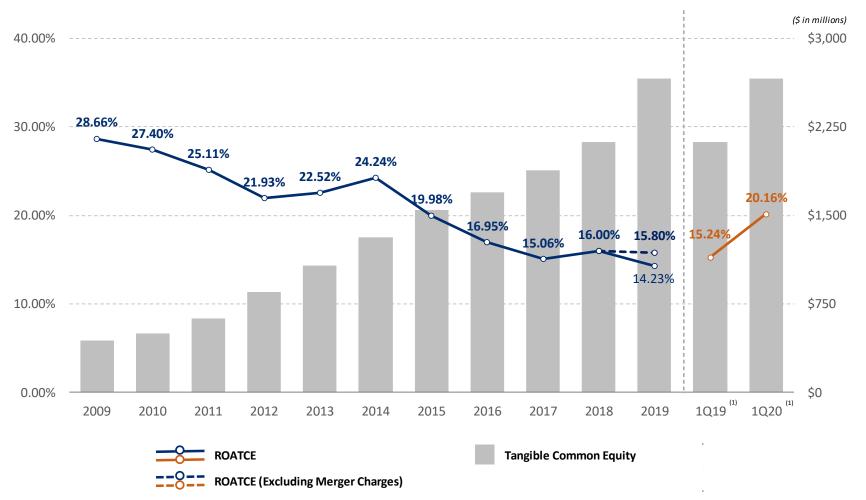
Source: Company Documents

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 of assets and securities. Additionally, taxes are not part of this calculation.



⁽¹⁾ Representative of target assets at closing

Return on Average Tangible Common Equity





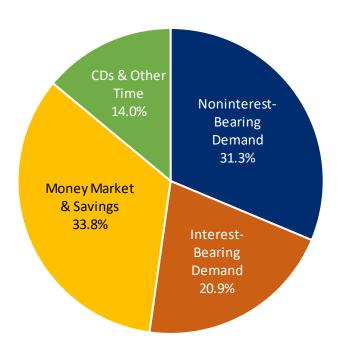
Return on Average Assets





Deposit Composition

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



	Şmm	Cost (%)(1)
Noninterest-Bearing Demand	\$7,461	0.00%
Interest-Bearing Demand	\$4,980	0.57%
Money Market & Savings	\$8,058	0.71%
CDs & Other Time	\$3,327	1.63%

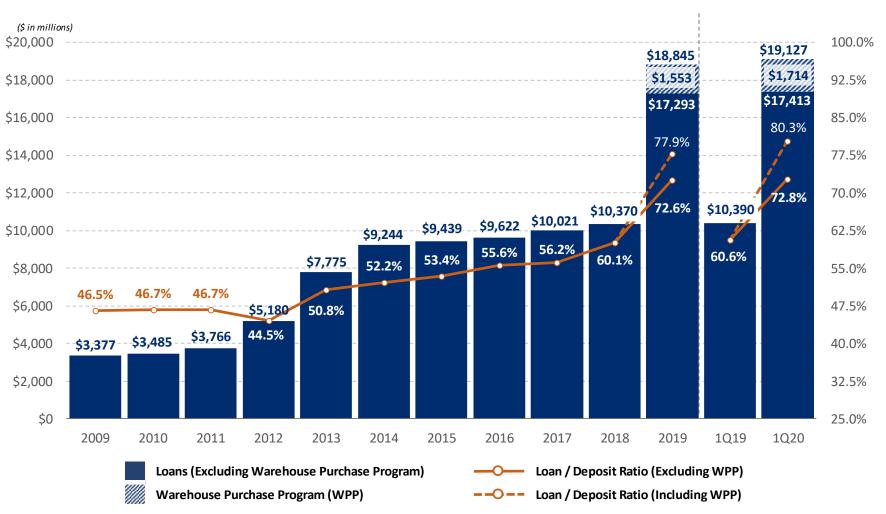
Total Deposits: \$23.8Bn

Total Cost of Deposits: 0.59%(1)

Cost of Deposits, Net of NIBD: 0.86%⁽¹⁾



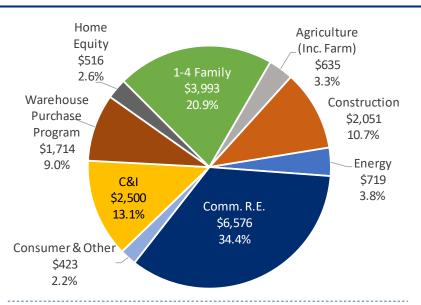
Loan Growth



Loan Portfolio Overview

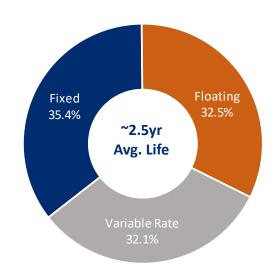
As of March 31, 2020 (\$ in millions)

Loan Portfolio by Category & Geography



Loans By Area (4)	<u>Amount</u> (2)(4)	% of Total
Bryan / College Station	\$624	3.6%
Central Oklahoma	\$606	3.5%
Central Texas	\$1,438	8.3%
Dallas / Ft. Worth	\$8,106	46.7%
East Texas	\$452	2.6%
Houston	\$3,307	19.0%
South Texas	\$1,301	7.5%
Tulsa Oklahoma	\$581	3.3%
West Texas	\$950	5.5%

Loans by Rate Structure



Total Loans: \$19.1Bn Loans (Excl. WPP): \$17.4Bn

Yield on Total Loans: 5.39%⁽¹⁾
Yield on Loans HFI (Excl. WPP): 5.50%⁽¹⁾⁽⁴⁾
Core Yield on Loans HFI (Excl. WPP): 4.84%⁽¹⁾⁽³⁾⁽⁴⁾

Source: Company Documents

- (1) Data for the three months ended March 31, 2020
- (2) Excludes \$48 million in loans assigned to the Corporate Group
- (3) Core yield excludes purchase accounting adjustments
- (4) Excludes Warehouse Purchase Program (WPP) Ioans



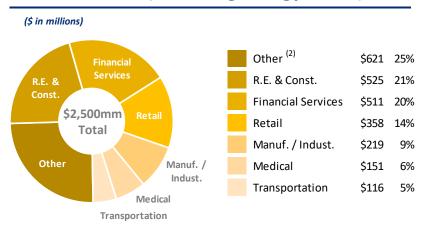
Loan Portfolio Detail

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

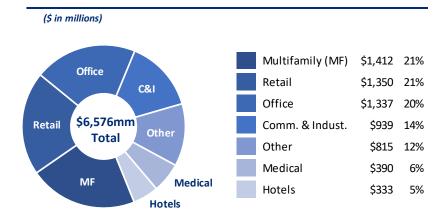
Portfolio Commentary

- 28% of commercial real estate is owner occupied
- CRE and construction loans conservatively underwritten to cost of collateral
- Medical loans equal to ~3% of total loans
- Hotel loans equal to ~2% of total loans
- Restaurant loans equal to ~1% of total loans

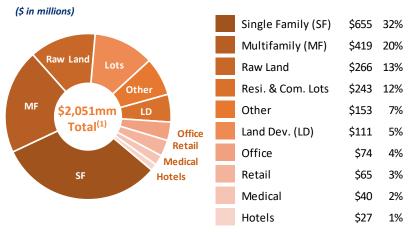
C&I Detail (Excluding Energy Loans)



Commercial Real Estate Detail



Construction Detail



Source: Company Documents

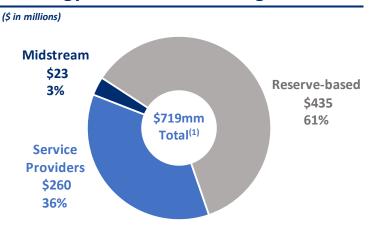
⁽¹⁾ Total includes a net unaccreted discount of (\$2.594) million, not shown in graph

⁽²⁾ Includes State & Political loans

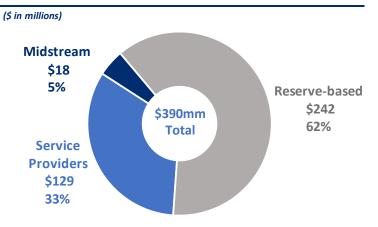
Energy Portfolio Detail

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

Energy Detail - Outstanding Balance



Energy Detail - Unfunded Commitments

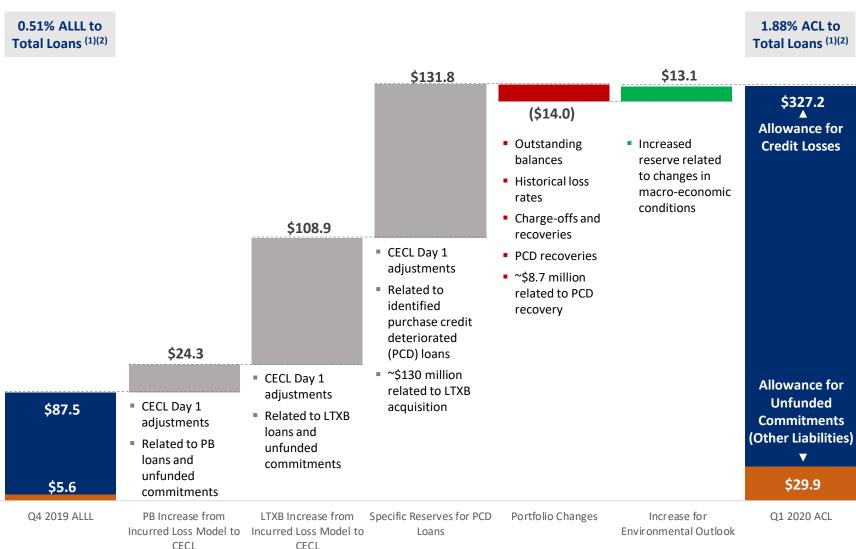


Portfolio Commentary

- Total energy loan loss reserves of 12.2%, or \$87.8 million (excluding fair value marks)
- \$372.8 million, or 51.9% of energy loans are subject to fair value marks of \$20.9 million in addition to general and specific loan loss reserves
- Portfolio largely company-led with only 2 Shared National Credits (SNCs), with an outstanding balance of \$44.1 million
- Portfolio focused on lending on proven producing reserves and therefore not dependent on ongoing development
- Acquired oil portfolio is 88.5% hedged during 2020 at a weighted average price of \$50.93 and 63.2% hedged during 2021 at a weighted average price of \$50.24
- Acquired gas portfolio is 58.6% hedged during2020 at a weighted average price of \$2.63 and 58.3% hedged during 2021 at a weighted average price of \$2.09



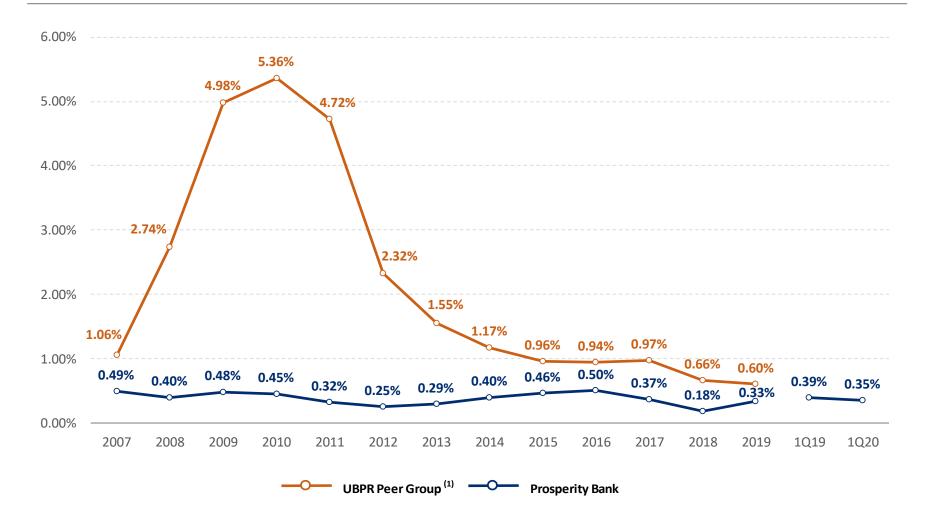
CECL Implementation and ACL Build





Asset Quality

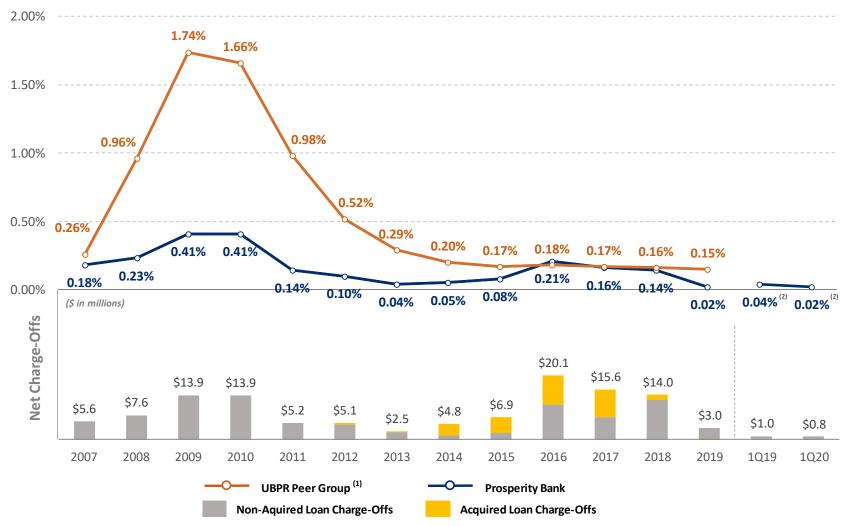
NPAs / Loans + OREO





Asset Quality

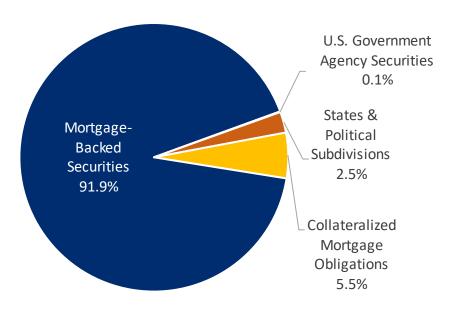
Net Charge-Offs / Average Loans





Securities Portfolio Detail

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





Mortgage-Backed Securities	\$7,629
Collateralized Mortgage Obligations	\$454
States & Political Subdivisions	\$209
U.S. Government Agency Securities	\$7

Total Securities: \$8.3Bn

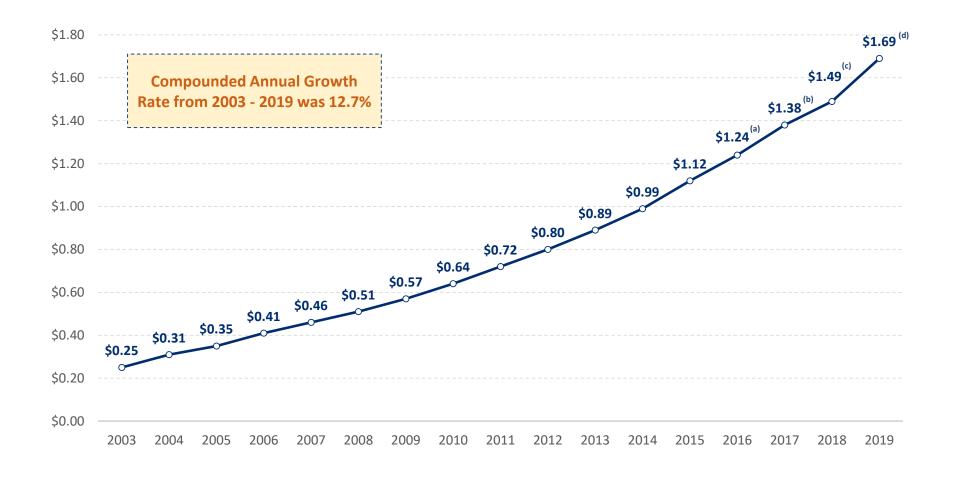
Yield on Securities: 2.30%⁽¹⁾

Duration: ~2.9 Yrs.⁽²⁾

Avg. Yearly Cash Flow: ~\$2.2Bn



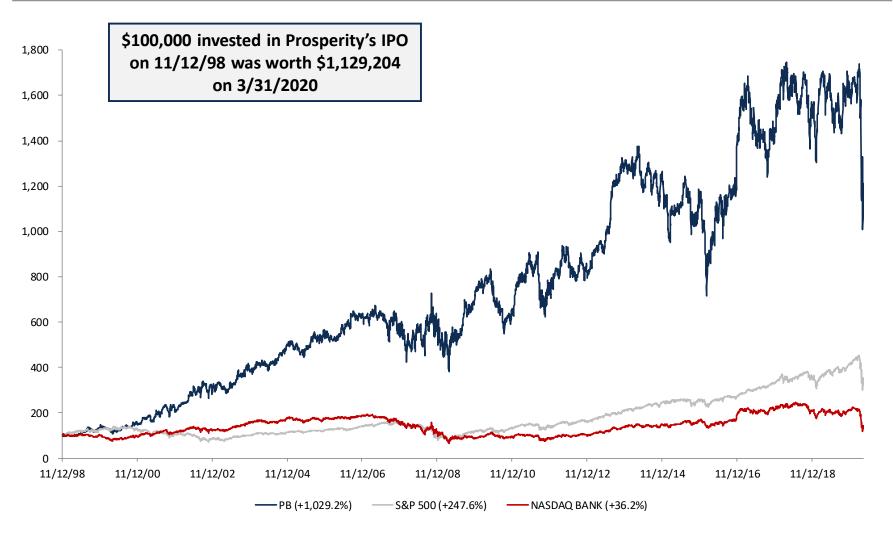
Dividend History





Total Return Performance

IPO (November 12, 1998) to March 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 49 headquartered companies in 2019
 - Ranked 1st by Forbes for current economic growth prospects, 3rd in business costs, and 4th in economic climate as of December 2019



- Oklahoma City and Tulsa MSAs comprise over 50% of the state's population
- Oklahoma is home to five Fortune 500 Companies in 2019
- 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 ⁽²⁾ (\$mm)	2020 - 2025 Population Growth
1	Austin-Round Rock-Georgetown, TX	√	\$925	8.5%
_	Austin-Round Rock-Georgetown, 17	·	7923	8.5%
2	Orlando-Kissimmee-Sanford, FL			7.9%
3	Raleigh-Cary, NC			7.7%
4	Houston-The Woodlands-Sugar Land, TX	✓	\$4,631	7.5%
5	San Antonio-New Braunfels, TX	✓	\$372	7.5%
6	Dallas-Fort Worth-Arlington, TX	✓	\$8,542	7.4%
7	Las Vegas-Henderson-Paradise, NV			7.2%
8	Phoenix-Mesa-Chandler, AZ			7.2%
9	Charlotte-Concord-Gastonia, NC-SC			7.0%
10	Denver-Aurora-Lakewood, CO			6.9%

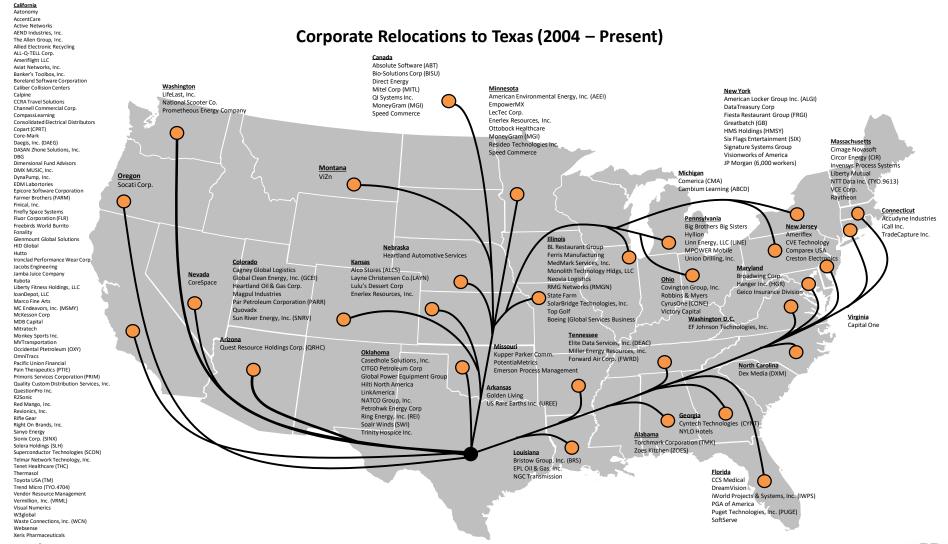
- Presence in four of the top six fastest growing MSAs in the United States
- The South is home of 10 of the 15 fastest growing cities with populations greater than 50,000 in the United States



⁽¹⁾ Includes MSAs with greater than one million in total population. Deposit data as of 6/30/2019.

⁽²⁾ Pro Forma Deposits for recently completed acquisition of LTXB.

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
- Headquarters to 22 Fortune 500 companies in 2019
- For the twelve months ended January 2020, Houston added 63,400 jobs, representing a growth rate of 2.0%
- Home of the Texas Medical Center the world's largest medical complex, and NASA's Johnson Space Center where the Mission Control Center is located
- The Port of Houston is 1st in the U.S. in international waterborne tonnage handled and 2nd in total cargo tonnage handled
- Houston's population is expected to grow 7.5% from 2020 to 2025

Select Fortune 500 Companies

































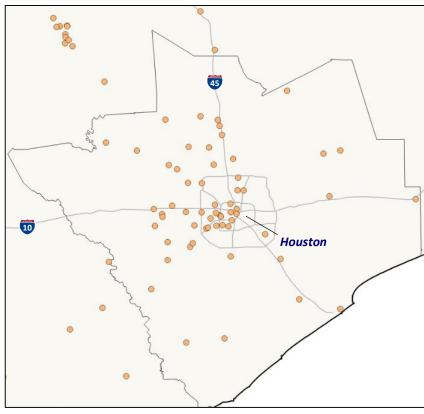








Houston Franchise





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
- Headquarters to 24 Fortune 500 companies in 2019, up from 22 in 2018, with five in the top 100
- Dallas has the largest workforce of any MSA in Texas
- For the twelve months ended February 2020, Dallas added 126,000 jobs, representing a growth rate of 3.4%
- Dallas/Ft. Worth population is expected to grow 7.4% from 2020 to 2025
- Ranked 2nd by Forbes in Best Places for Business and Careers in the United States

Select Fortune 500 Companies





































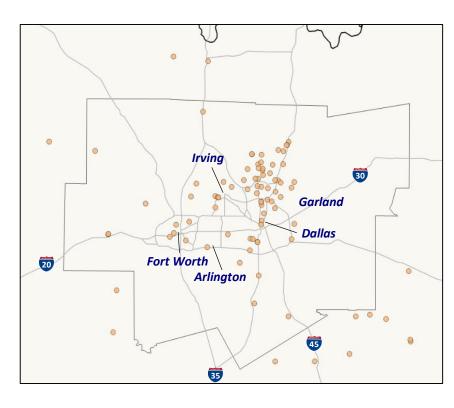








Dallas / Ft. Worth Franchise





Austin Market Highlights

Market Highlights

- Ranked #1 place to live in the U.S. in 2019 by U.S. News and World Report for the third year in a row
- For the twelve months ended February 2020, Austin added ~36,700 jobs, representing a growth rate of 3.3%
- Professional and business services added the most jobs (~6,500) over the last 12 months
- Austin's population is expected to grow 8.5% from 2020 to 2025

Select Fortune 500 Companies















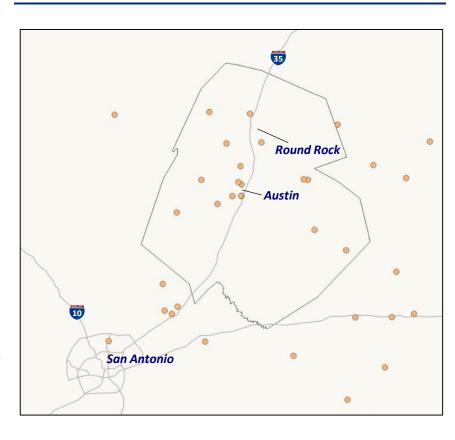








Austin Franchise Franchise





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