“Safe Harbor” Statement

Under the Private Securities Litigation Reform Act of 1995

Statements contained in this presentation which are not historical facts and which pertain to future operating results of Prosperity Bancshares, Inc.® and its subsidiaries constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements involve significant risks and uncertainties. Actual results may differ materially from the results discussed in these forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in the company’s periodic reports and filings with the SEC. Copies of the SEC filings for Prosperity Bancshares, Inc.® may be downloaded from the Internet at no charge from www.prosperitybankusa.com.
2018 Third Quarter Highlights

- Net income of $82.523 million and earnings per share (diluted) of $1.18 for three months ended September 30, 2018
- Assets of $22.613 billion, loans of $10.293 billion, and deposits of $16.734 billion at September 30, 2018
- Loans increased 5.8% (annualized) in the third quarter 2018
- Common equity tier 1 ratio was 15.94% and leverage ratio was 9.94% at September 30, 2018
- Sound asset quality with annualized net charge offs/average loans of 0.05% for the third quarter
- Nonperforming assets to average earning assets remain low at 0.08% or $16.777 million for the third quarter 2018
- Efficiency ratio of 43.50% for the third quarter 2018
- Increase cash dividend 13.9% to $0.41 for the fourth quarter 2018

Source: Company Documents
Strong Presence in Texas and Oklahoma

- A Texas-based financial holding company with $22.613 billion in total assets
- Ranked #3 in deposit market share in Texas (1)
- Shareholder driven with 5.1% fully diluted insider ownership (2)
- Successful integration of 42 acquisitions (whole bank, branch and failed bank transactions)

242 Full Service Locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bryan/College Station Area</td>
<td>16</td>
</tr>
<tr>
<td>Central Texas Area</td>
<td>29</td>
</tr>
<tr>
<td>Dallas/Fort Worth Area</td>
<td>33</td>
</tr>
<tr>
<td>East Texas Area</td>
<td>22</td>
</tr>
<tr>
<td>Houston Area</td>
<td>65</td>
</tr>
<tr>
<td>South Texas Area</td>
<td>29</td>
</tr>
<tr>
<td>West Texas Area</td>
<td>34</td>
</tr>
<tr>
<td>Central Oklahoma Area</td>
<td>6</td>
</tr>
<tr>
<td>Tulsa Area</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: SNL Financial
(1) Per FDIC; Includes Texas headquartered banks; Deposits as of 6/30/2018
(2) Per proxy statement (Form DEF 14A) filed on 3/13/2018
Balance Sheet Summary

Data as of 09/30/2018

<table>
<thead>
<tr>
<th></th>
<th>Loans</th>
<th>Deposits</th>
<th>Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data as of</td>
<td>$10.293 Bn</td>
<td>$16.734 Bn</td>
<td>$22.613 Bn</td>
</tr>
<tr>
<td>10 Year CAGR</td>
<td>12.3%</td>
<td>13.6%</td>
<td>13.5%</td>
</tr>
</tbody>
</table>

Source: Company Documents

(1) Represents the Compound Annual Growth Rate from 12/31/2007 – 12/31/2017
Net Income

($ in millions)

10 Year CAGR: (1) 12.5%
5 Year CAGR: (2) 10.1%

Note: Net income includes the following ($ in thousands)

<table>
<thead>
<tr>
<th>Provision for Credit Losses</th>
<th>$760</th>
<th>$9,867</th>
<th>$28,775</th>
<th>$13,585</th>
<th>$5,200</th>
<th>$6,100</th>
<th>$17,240</th>
<th>$18,275</th>
<th>$7,560</th>
<th>$24,000</th>
<th>$14,325</th>
<th>$6,900</th>
<th>$2,350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Discount Accretion</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td></td>
<td>$26,413</td>
<td>$62,723</td>
<td>$95,875</td>
<td>$52,122</td>
<td>$38,970</td>
<td>$21,906</td>
<td>$7,886</td>
<td>$3,457</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Company Documents

(1) Represents the Compound Annual Growth Rate from 12/31/2007 – 12/31/2017
(2) Represents the Compound Annual Growth Rate from 12/31/2012 – 12/31/2017
(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
Earnings Per Share

10 Year EPS CAGR: (1) 7.3%
5 Year CAGR: (2) 3.9%

Note: Net income includes the following ($ in thousands)

<table>
<thead>
<tr>
<th></th>
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<td>$7,560</td>
<td>$24,000</td>
<td>$14,325</td>
<td>$6,900</td>
<td>$2,350</td>
</tr>
<tr>
<td>Losses Loan Discount Accretion</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$26,413</td>
<td>$62,723</td>
<td>$95,875</td>
<td>$52,122</td>
<td>$38,970</td>
<td>$21,906</td>
<td>$7,886</td>
<td>$3,457</td>
</tr>
</tbody>
</table>

Source: Company Documents

(1) Represents the Compound Annual Growth Rate from 12/31/2007 – 12/31/2017
(2) Represents the Compound Annual Growth Rate from 12/31/2012 – 12/31/2017
(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
Net Interest Margin

Source: Company Documents
**Acquisitions & Efficiency Ratio**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Assets Excluding Acquisitions</td>
<td>$6,372</td>
<td>$9,072</td>
<td>$8,850</td>
<td>$9,477</td>
<td>$9,823</td>
<td>$14,584</td>
<td>$18,642</td>
<td>$21,508</td>
<td>$22,037</td>
<td>$22,331</td>
<td>$22,587</td>
<td>$22,613</td>
</tr>
<tr>
<td>Total Assets Acquired</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Efficiency Ratio</td>
<td>46.2%</td>
<td>46.5%</td>
<td>46.3%</td>
<td>44.8%</td>
<td>42.8%</td>
<td>43.5%</td>
<td>41.6%</td>
<td>41.8%</td>
<td>41.9%</td>
<td>42.5%</td>
<td>42.8%</td>
<td>43.5%</td>
</tr>
</tbody>
</table>

*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 of assets and securities. Additionally, taxes are not part of this calculation.
Return on Average Tangible Common Equity

Interim periods shown on an annualized basis

<table>
<thead>
<tr>
<th>Year</th>
<th>ROATCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>30.03%</td>
</tr>
<tr>
<td>2008</td>
<td>24.16%</td>
</tr>
<tr>
<td>2009</td>
<td>28.66%</td>
</tr>
<tr>
<td>2010</td>
<td>27.40%</td>
</tr>
<tr>
<td>2011</td>
<td>25.11%</td>
</tr>
<tr>
<td>2012</td>
<td>21.93%</td>
</tr>
<tr>
<td>2013</td>
<td>22.52%</td>
</tr>
<tr>
<td>2014</td>
<td>24.24%</td>
</tr>
<tr>
<td>2015</td>
<td>19.98%</td>
</tr>
<tr>
<td>2016</td>
<td>16.95%</td>
</tr>
<tr>
<td>2017</td>
<td>15.06%</td>
</tr>
<tr>
<td>3Q17</td>
<td>14.83%</td>
</tr>
<tr>
<td>3Q18</td>
<td>16.17%</td>
</tr>
</tbody>
</table>
Return on Average Assets

(1) Interim periods shown on an annualized basis
Deposit Composition

As of September 30, 2018
($ in millions)

<table>
<thead>
<tr>
<th>Depository Category</th>
<th>$mm</th>
<th>Cost (%) (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Interest Bearing Demand Demand</td>
<td>$5,700</td>
<td>0.00%</td>
</tr>
<tr>
<td>Interest Bearing Demand</td>
<td>$3,551</td>
<td>0.51%</td>
</tr>
<tr>
<td>Money Market &amp; Savings</td>
<td>$5,392</td>
<td>0.67%</td>
</tr>
<tr>
<td>CDs &amp; Other Time Time</td>
<td>$2,090</td>
<td>1.02%</td>
</tr>
</tbody>
</table>

Non-Interest Bearing Demand Deposits

Year over Year Growth: 4.3%

Total Deposits: $16.7Bn

Total Cost of Deposits: 0.45% (1)

Cost of Deposits, Net of NIBD: 0.68% (1)

Source: Company Documents

(1) Data for the three months ended September 30, 2018
Loan Growth

($ in millions)

Loans

Loan / Deposit Ratio

Source: Company Documents
Loan Portfolio Overview

As of September 30, 2018
($ in millions)

Loan Portfolio by Category & Geography

- 1-4 Family: $2,440 (23.7%)
- Construction: $1,560 (15.2%)
- C&I: $1,160 (11.3%)
- Energy: $365 (3.5%)
- Comm. R.E.: $3,507 (34.1%)
- Agriculture (Inc. Farm): $706 (6.8%)
- Consumer & Other: $281 (2.7%)
- Home Equity: $274 (2.7%)

Loans by Rate Structure

- Fixed: 38.7%
- Floating: 37.5%
- Variable Rate: 23.8%

~3.2yr Avg. Life

Loans By Area

<table>
<thead>
<tr>
<th>Area</th>
<th>Amount(2)</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bryan / College Station:</td>
<td>$653</td>
<td>6.4%</td>
</tr>
<tr>
<td>Central Oklahoma:</td>
<td>$552</td>
<td>5.4%</td>
</tr>
<tr>
<td>Central Texas:</td>
<td>$1,423</td>
<td>13.9%</td>
</tr>
<tr>
<td>Dallas / Ft. Worth:</td>
<td>$1,210</td>
<td>11.8%</td>
</tr>
<tr>
<td>East Texas:</td>
<td>$417</td>
<td>4.1%</td>
</tr>
<tr>
<td>Houston:</td>
<td>$3,139</td>
<td>30.6%</td>
</tr>
<tr>
<td>South Texas:</td>
<td>$1,320</td>
<td>12.9%</td>
</tr>
<tr>
<td>Tulsa Oklahoma:</td>
<td>$613</td>
<td>6.0%</td>
</tr>
<tr>
<td>West Texas:</td>
<td>$911</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

Total Loans: $10.3Bn
Yield on Loans: 5.00%(1)
Core Yield on Loans: 4.87%(3)

Source: Company Documents

(1) Data for the three months ended September 30, 2018
(2) Excludes $55 million in loans assigned to the Corporate Group
(3) Core Yield excludes purchase accounting adjustments
Loan Portfolio Segment Detail

**Commercial Real Estate Detail**

- **Total:** $3,507mm
  - Shopping Center: $610, 17%
  - Office Building: $366, 10%
  - Multi-Family: $173, 5%
  - C&I: $281, 8%
  - Other: $582, 17%

**Construction Detail**

- **Total:** $1,560mm
  - Single Family: $423, 27%
  - Land Dev.: $89, 6%
  - Raw Land: $137, 9%
  - Resi. Lots: $122, 8%
  - Comm. / Other: $791, 50%

**Energy Detail - Outstanding Balance**

- **Total:** $365mm
  - Servicers: $241, 66.0%
  - Producers: $124, 34.0%

**Energy Detail - Unfunded Commitments**

- **Total:** $230mm
  - Servicers: $121, 52.7%
  - Producers: $109, 47.3%

Source: Company Documents

(1) Total includes a net unaccrued discount of ($1.618) million, not shown in graph.
Houston MSA CRE Portfolio

As of September 30, 2018
($ in millions)

- Owner Occupied: $544
- Shopping Center / Retail: $302
- Commercial & Industrial: $128
- Office: $96
- Medical: $31
- Hotel: $38
- Multi-Family: $39
- Other: $48

Total Houston MSA CRE: $1.2Bn

Source: Company Documents
Asset Quality
NPAs / Loans + OREO

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 11 (231 banks) – insured commercial banks having assets greater than $3 billion
Securities Portfolio Detail

As of September 30, 2018
($ in millions)

99.0% Held to Maturity
1.0% Available for Sale

Total Securities: $9.5Bn
Yield on Securities: 2.29%\(^{(1)}\)
Duration: ~3.6 Yrs.\(^{(2)}\)
Avg. Yearly Cash Flow: ~$1.8Bn

- Mortgage-Backed Securities: $9,205
- States & Political Subdivisions: $257
- Collateralized Mortgage Obligations: $14

Source: Company Documents
(1) Data for the three months ended September 30, 2018
(2) Effective duration shown
Dividend History

Compounded Annual Growth Rate from 2003 - 2017 was 13.0%
Total Return Performance

IPO (November 12, 1998) to September 30, 2018

$100,000 invested in Prosperity’s IPO on 11/12/98 was worth $1,561,790 on 9/30/2018

Presence in Fast-Growing Markets

Positioned in Strong Markets

- Today, Texas is the 2\textsuperscript{nd} largest state in the U.S. with over 28 million residents
- Ranked #3 on the Fortune 500 list with 54 headquartered companies as of 2017
- Ranked 1\textsuperscript{st} by Forbes for current economic climate thanks to the 2\textsuperscript{nd} fastest economic growth and 3\textsuperscript{rd} fastest job growth over the past five years

- Oklahoma City and Tulsa comprise nearly 50\% of the state’s population
- Oklahoma is home to five Fortune 500 Companies
- Business tax climate is one of the best in the country and employers also benefit from energy costs that are roughly 25\% below the national average
- 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. \(^{(1)}\)

<table>
<thead>
<tr>
<th>Metropolitan Statistical Area</th>
<th>Prosperity Presence</th>
<th>Prosperity Deposits ($mm)</th>
<th>2018 - 2023 Population Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Austin-Round Rock, TX</td>
<td>✓</td>
<td>$840</td>
<td>9.1%</td>
</tr>
<tr>
<td>2 Orlando-Kissimmee-Sanford, FL</td>
<td></td>
<td>-</td>
<td>8.1%</td>
</tr>
<tr>
<td>3 Houston-The Woodlands-Sugar Land, TX</td>
<td>✓</td>
<td>$4,976</td>
<td>8.0%</td>
</tr>
<tr>
<td>4 San Antonio-New Braunfels, TX</td>
<td>✓</td>
<td>$356</td>
<td>7.9%</td>
</tr>
<tr>
<td>5 Dallas-Fort Worth-Arlington, TX</td>
<td>✓</td>
<td>$1,429</td>
<td>7.7%</td>
</tr>
<tr>
<td>6 Las Vegas-Henderson-Paradise, NV</td>
<td></td>
<td>-</td>
<td>7.5%</td>
</tr>
<tr>
<td>7 Denver-Aurora-Lakewood, CO</td>
<td></td>
<td>-</td>
<td>7.2%</td>
</tr>
<tr>
<td>8 Phoenix-Mesa-Scottsdale, AZ</td>
<td></td>
<td>-</td>
<td>7.0%</td>
</tr>
<tr>
<td>9 Seattle-Tacoma-Bellevue, WA</td>
<td></td>
<td>-</td>
<td>6.9%</td>
</tr>
<tr>
<td>10 Atlanta-Sandy Springs-Roswell, GA</td>
<td></td>
<td>-</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

- Presence in four of the top five fastest growing MSAs in the United States
- The South is home of ten 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 6/30/2018

Corporate Relocations to Texas (2004 – Present)

22
Houston Market Highlights

Market Highlights

- Houston MSA is the 5th largest in the United States by population with 7.0 million people
- Headquarters to 20 Fortune 500 companies, and only New York City is home to more publicly traded companies
- 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
- For the twelve months ended June 2018, the Houston MSA created 94,600 jobs, including 23,200 in June 2018 alone
- Houston’s population is expected to grow 8.0% from 2019 to 2024
- For the twelve months ended June 2018, the unemployment rate decreased from 5.1% to 4.6%

Fortune 500 Companies

Sources: SNL Financial, Worldpopulationreview.com, Houston.org, Forbes.com, Houston.org, Greater Houston Partnership.
References to Houston refer to the Houston – The Woodlands – Sugar Land metropolitan statistical area.
Dallas/Ft. Worth Market Highlights

Market Highlights

- Dallas/Ft. Worth MSA is the 4th largest in the United States by population with 7.5 million residents
- Headquarters to 22 Fortune 500 companies
- Dallas has the largest workforce of any MSA in Texas
- For the twelve months ended June 2018, the Dallas/Ft. Worth MSA added 83,300 jobs, representing a growth rate of 3.2%, making it the third fastest growing job market in the country
- For the twelve months ended August 2018, local nonfarm employment rose 3.2%, compared to the national rate of 1.7%
- Dallas/Ft. Worth population is expected to grow 7.7% from 2019 to 2024

Fortune 500 Companies

References to Dallas refer to the Dallas – Fort Worth – Arlington metropolitan statistical area.
Austin Market Highlights

Market Highlights

- Ranked #1 place to live in the U.S. in 2017 by U.S. News and World Report
- For the twelve months ended June 2018, Austin added 35,700 jobs, representing a growth rate of 3.4%, making it the third fastest growing job market in the country
- Ranked by Forbes as the #8 best place in the United States for businesses and careers in 2017
- In the Austin metro, 41.5% of adults have at least a bachelor’s degree, compared to 30.1% nationally, putting Austin in the top 10 among the largest metro areas
- Austin’s population is expected to grow 9.1% from 2019 to 2024

Fortune 500 Companies

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