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® may be downloaded from the Internet at no charge from www.prosperitybankusa.com.
Corporate Profile

*a Track Record of Success*

Best Markets in the U.S.

- 246 branches primarily located in Houston, Dallas, and Austin

Significant Growth

- $21.2 billion in total assets at 6/30/2014; $9.8 billion in total assets at 12/31/2011

Sound Asset Quality

- NPAs / Loans + OREO of 0.31% and NCO / Avg. Loans of 0.01%

Excellent Profitability

- 42.9% efficiency ratio, 1.42% ROAA and 24.06% ROTCE for the quarter ended 6/30/14

Shareholder-Driven

- 6.0% fully-diluted insider ownership ($4.3 billion market cap) \(^{(1)}\)

Proven Acquiror

- 26 whole-bank transactions since 2000 and 8 since 2012

Consolidation Opportunities

- Texas and Oklahoma are home to 53 banks with total assets of at least $1 billion

Shareholder-Focused

- 1,190% return (including dividends) since IPO

\(^{(1)}\) As of July 24, 2014
Second Quarter 2014 Highlights

Strong earnings - $75.5 million or $1.08 per share (diluted)

• Increase of 40.2% and 21.3%, respectively, compared to 2Q 2013

Significant balance sheet growth

• Assets increased 30.6%, loans 50.8%, and deposits 38.2% from 2Q 2013

Net interest income before provision for credit losses of $174.1 million

• Increase of 46.6% compared to 2Q 2013

Excellent asset quality

• Annualized NCO/ Average Loans of just 0.01%

Non-performing assets of $28.5 million

• Enviable NPA / Loans + OREO ratio of 0.31%

Tangible common equity ratio was 6.16% at June 30, 2014

• 13.18% total risk-based capital ratio
Banking Center Network

246 Full Service Locations

<table>
<thead>
<tr>
<th>Branch Locations</th>
<th>Metro/Geographic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td>Houston Area</td>
</tr>
<tr>
<td>37</td>
<td>Dallas/ Fort Worth Area</td>
</tr>
<tr>
<td>30</td>
<td>Austin &amp; Central Texas Area</td>
</tr>
<tr>
<td>30</td>
<td>South Texas Area</td>
</tr>
<tr>
<td>16</td>
<td>Bryan/ College Station Area</td>
</tr>
<tr>
<td>34</td>
<td>West Texas Area</td>
</tr>
<tr>
<td>22</td>
<td>East Texas Area</td>
</tr>
<tr>
<td>6</td>
<td>Oklahoma City Area</td>
</tr>
<tr>
<td>9</td>
<td>Tulsa Area</td>
</tr>
</tbody>
</table>
Texas Has The Top Three Income Growth MSAs

Projected Household Income Growth (2013-2018) (%)

- Houston, TX: 29%
- Austin, TX: 28%
- Dallas, TX: 27%
- Atlanta, GA: 25%
- Philadelphia, PA: 25%
- Salt Lake City, UT: 24%
- Minneapolis, MN: 24%
- Portland, OR: 24%
- Denver, CO: 23%
- Chicago, IL: 23%

Source: SNL Financial
• Texas leads the nation in post-recession job recovery (1,300,000\(^{(1)}\) jobs added since 2009)
  • Relocation of ExxonMobil’s global headquarters to Houston
  • Relocation of Toyota’s North American headquarters to Dallas

• Texas and Oklahoma unemployment rates were 5.1\(^{(1)}\) % and 4.5\(^{(1)}\) %, respectively at June 30, 2014, (6.1\(^{(1)}\) % for the U.S.)

• Excluding federal offshore areas, Oklahoma ranked 5th in crude oil production in the nation in 2013

• Texas is home to 52 Fortune 500 companies, 3 of the 10 largest U.S. cities, and is the 14th largest economy in the world

• In 2013, Texas led the U.S. in exports for the 12th year in a row with $297.7B

• Texas has the 3rd largest share of domestic tourism (568,000 jobs and $65.7B in direct travel spending in 2012)

• Texas accounts for more than 25\% of U.S. natural gas production

• Oklahoma had 5 operating petroleum refineries with a combined daily capacity of over 500,000 barrels per day (3\% of the total U.S. operating distillation capacity) as of January 2013

• Texas is projected be the world’s 2nd largest crude oil producer by year-end 2014

(1) Bureau of Labor Statistics and Federal Reserve Bank of Dallas
Consolidation Opportunities Remain Plentiful

There are 53 banks in Texas and Oklahoma with assets greater than $1 billion. (1)

PB has completed 26 whole bank acquisitions since 2000.

(1) Includes banks with total assets between $1.0 and $15.0 billion; excludes banks with pending merger agreements
Balance Sheet Growth

Totals as of 6/30/14
Loans $9.3 Billion
Deposits $17.3 Billion
Assets $21.2 Billion

10 year CAGR (2003-2013)
Loans 26.0%
Deposits 22.1%
Assets 22.8%
Earnings Per Share Growth

Diluted Earnings Per Share

- 2009: $2.41
- 2010: $2.73
- 2011: $3.01
- 2012: $3.23
- 2013: $3.65
- 2Q '13: $0.89
- 2Q '14: $1.08

5 year CAGR 14.4%

21.3% Growth
Net Income Growth

Net Income to Common Shareholders

($ in Millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>$112</td>
</tr>
<tr>
<td>2010</td>
<td>$128</td>
</tr>
<tr>
<td>2011</td>
<td>$142</td>
</tr>
<tr>
<td>2012</td>
<td>$168</td>
</tr>
<tr>
<td>2013</td>
<td>$221</td>
</tr>
<tr>
<td>2Q '13</td>
<td>$54</td>
</tr>
<tr>
<td>2Q '14</td>
<td>$76</td>
</tr>
</tbody>
</table>

5 year CAGR 21.2%

40.2% Growth
Consistent ROAA

Return on Average Assets

2009: 1.26%
2010: 1.38%
2011: 1.47%
2012: 1.35%
2013: 1.36%
2Q '13: 1.33%
2Q '14: 1.42%

* Quarterly figures are annualized.
Focus on Expenses

Efficiency Ratio

Note: Efficiency Ratio is calculated by dividing total non-interest expense (excluding credit loss provisions) by net interest income plus non-interest income (excluding gains and losses on the sale of securities, and assets). Additionally, taxes are not part of this calculation.
Loan Growth

Loans ($Billions)  Loan / Deposit Ratio (%)

2009: $3.4  46.5%
2010: $3.5  46.7%
2011: $3.8  46.7%
2012: $5.2  44.5%
2013: $7.8  50.8%
2Q13: $6.2  49.3%
2Q14: $9.3  53.9%
# Loan Portfolio

*As of June 30, 2014*

49% of C.R.E. is owner-occupied

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>Amount ($000s)</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial R.E.</td>
<td>$3,027,945</td>
<td>32.6%</td>
</tr>
<tr>
<td>Commercial</td>
<td>$2,139,983</td>
<td>23.0%</td>
</tr>
<tr>
<td>Construction</td>
<td>$1,005,099</td>
<td>10.8%</td>
</tr>
<tr>
<td>1-4 Family Residential</td>
<td>$2,153,801</td>
<td>23.1%</td>
</tr>
<tr>
<td>Consumer</td>
<td>$171,215</td>
<td>1.8%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>$542,360</td>
<td>5.8%</td>
</tr>
<tr>
<td>Home Equity</td>
<td>$267,759</td>
<td>2.9%</td>
</tr>
<tr>
<td><strong>Gross Loans</strong></td>
<td><strong>$9,308,162</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
NPA’s*/ Loans + OREO

*Includes loans past due 90 days and still accruing

Texas Peer Group Includes: CFR, EBTX, FFIN, FBTX, IBOC, MCBI, SBSI, SNBI, SBIB, SBIT, TCBI, TRBS & TXUI

^ SNBI, SBIT, TRBS & TXUI have been acquired and were excluded from 2006 & 2007 and FBTX failed and was excluded from 2008, SBIB was acquired and excluded from 2011, EBTX was acquired and excluded from 2012, MCBI was acquired and excluded from 2013

Source: SNL Financial
NCO’s / Average Loans

Texas Peer Group Includes: CFR, EBTX, FFIN, FBTX, IBOC, MCBI, SBSI, SNBI, SBIB, SBIT, TCBI, TRBS & TXUI
^ SNBI, SBIT, TRBS & TXUI have been acquired and were excluded from 2006 & 2007 and FBTX failed and was excluded from 2008, SBIB was acquired and excluded from 2011, EBTX was acquired and excluded from 2012, MCBI was acquired and excluded from 2013

Source: SNL Financial
Dividends Per Share

Compounded Annual Growth Rate from 2002-2013 was 13.5%

Dividends declared and paid of $0.24 per share in each of 1Q 2014 and 2Q 2014.

* 2013 dividend consists of $0.215 per share declared in each of 1Q 2013, 2Q 2013 and 3Q 2013 and $0.24 per share declared in 4Q 2013
Proven Shareholder Returns

Total Return Since IPO (1)

$100,000 invested in Prosperity’s IPO on 11/12/1998 was worth $1,290,340 on 6/30/2014

(1) Total Return includes stock price appreciation plus dividends re-invested. Indexed to 100.
Source: SNL Financial and FactSet Research Systems
Conclusion

- Operates in some of the most vibrant markets in the United States
- Has a proven track record of structuring accretive M&A deals
- Very experienced and deep management team
- Has demonstrated significant growth and profitability while maintaining a strong balance sheet
- Focused on delivering positive returns to shareholders
<table>
<thead>
<tr>
<th>Corporate Headquarters</th>
<th>Investor Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prosperity Bank Plaza</td>
<td>David Zalman</td>
</tr>
<tr>
<td>4295 San Felipe</td>
<td>Chairman &amp; Chief Executive Officer</td>
</tr>
<tr>
<td>Houston, Texas 77027</td>
<td>979.543.2200</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:david.zalman@prosperitybankusa.com">david.zalman@prosperitybankusa.com</a></td>
</tr>
</tbody>
</table>

281.269.7199 Telephone  
281.269.7222 Fax  
www.prosperitybankusa.com  

<table>
<thead>
<tr>
<th></th>
<th>David Hollaway</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chief Financial Officer</td>
</tr>
<tr>
<td></td>
<td>281.269.7199</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:david.hollaway@prosperitybankusa.com">david.hollaway@prosperitybankusa.com</a></td>
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</tbody>
</table>